

**BUILDING PUZZLES AND GROWING PEARLS: A
QUALITATIVE EXPLORATION OF DETERMINING
ABOUTNESS**

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Despite centuries of organizing information in libraries and other information institutions, little is known about how a document is analyzed to determine its subject matter. This case study is a qualitative exploration to better understand the processes involved in the conceptual analysis of documents. Conceptual analysis, an essential step in the subject analysis process, is the attempt by a cataloger or indexer to determine the subject matter, or the aboutness, of a document. The purpose of this research is to examine how interested yet untrained participants perform the tasks of conceptual analysis when no process is suggested. The study uses observation, think-aloud procedures, and in-depth, semi-structured interviews to understand the participants' subject determination processes. Transcripts of the analysis sessions and interviews were examined for underlying patterns of analysis. The aims of this research are to understand how individuals approach the process of determining aboutness, what bibliographic, content, or visual cues they use to find key aboutness data, and what patterns emerge during the subject determination process. This research begins an attempt to develop a model of conceptual analysis to be used in teaching, research, and praxis.

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CHAPTER 1.0 INTRODUCTION

1.1 GENERAL BACKGROUND OF THE STUDY

Subject access to information is, has been, and most likely will remain one of the most difficult aspects of information organization and retrieval. For more than a century, the greatest minds of library and information science (LIS) have struggled with the complexities of subject access. Shera states that systems of content-accessibility are without question the most difficult to make and the least satisfactory of bibliographic instruments.¹ Jolley states that making subject catalogs has received little attention, and that little “success has been obtained in drawing up authoritative and detailed rules.... The reasons for this comparative neglect are to be found not in the lesser importance of the subject catalogue, but in the intractability of the difficulties it presents.”²

In 1876, Cutter’s *Rules for a Dictionary Catalog* described the “objects” of the catalog. Cutter asserts that catalogs have both a collocation function and a retrieval function. In his objectives, he includes three subject-related aims. He states that the catalog should:

¹ Jesse H. Shera, *Documentation and the Organization of Knowledge* (Hamden, Conn.: Archon Books, 1966), 41.

² Leonard Jolley, *The Principles of Cataloguing* (New York: Philosophical Library, 1961), 98.

- Enable a person to find a book when the subject is known;
- Show what a library has on a given subject or in a given kind of literature; and,
- Assist in the choice of a book as to its character.³

For over 125 years, Cutter’s objectives have been among the guiding principles of the organization of information. His ideas continue to inspire information professionals, and to inform current cataloging practices. His objectives remind catalogers of their obligation to provide patrons with a variety of ways to access information, including subject-based access.

In order to provide subject access to documents, a process known as subject analysis is performed. Williamson states that the subject analysis process is “one of the most complex and least understood aspects of bibliographic control.”⁴ It is performed to identify the topical contents of documents so that an individual item can be “retrieved uniquely according to its particular aspects,” and can be “related to other materials and retrieved in conjunction with them.”⁵ Subject analysis comprises distinct conceptual components, though experts do not agree upon the exact number and nature of these components.⁶ Most authorities, however, do include two essential steps:

- Examining the document to determine its subject or aboutness; and
- Translating that aboutness into one or more indexing languages.

Regardless of how many steps are included in the description of the subject analysis process, it begins with a conceptual analysis of the document. A conceptual analysis is an attempt to

³ Charles A. Cutter, *Rules for a Dictionary Catalog*, 4th ed. (Washington, DC: Government Printing Office, 1904), 12.

⁴ Nancy J. Williamson, “Standards and Rules for Subject Analysis,” *Cataloging & Classification Quarterly* 21, no. 3/4 (1996): 157.

⁵ Dorilyn J. Hickey, “Subject Analysis: An Interpretative Survey,” *Library Trends* 25, no. 1 (1976): 274.

⁶ Examples of how approaches may differ can be found in *ISO 5963 Documentation—Methods for examining documents, determining their subjects, and selecting indexing terms*, Lancaster’s *Indexing and Abstracting in Theory and Practice* (2003), and Taylor’s *The Organization of Information* (2004).

uncover the subject of a document, i.e., to determine the document's aboutness. But what do the words *subject* and *aboutness* mean?

Surprisingly, the term subject is more complex than its prevalence in everyday language would suggest. Wellisch defines subject as “any concept or combination of concepts representing the content of a document; the summarization of the topics of a document.”⁷ He defines the term aboutness as “any concept or combination of concepts representing the content of a document; the entirety of the subjects and topics covered by the text of a document either explicitly or implicitly.” Using these definitions, the term aboutness is nearly synonymous with subject, and is relatively straightforward and pragmatic. The term subject, however, has a richer and longer history, and it has been used in the less pragmatic discourses of philosophy and literature. Thus, it is not difficult to leap from the term subject to the related but more philosophical terms: *meaning*, *understanding*, *interpretation*, and *idea*. In an effort to avoid some of the complexity and ambiguity inherent in subject, the favored term in library and information science became the more pragmatic, practice-oriented aboutness though many in the field still use the terms interchangeably. Thus, this researcher uses the term subject to refer to a more philosophical, interpretive approach to the contents of documents, which may entail multiple meanings; whereas aboutness is used to refer to a more pragmatic approach to the fixed contents of documents. This distinction is purely conceptual, but it is useful to differentiate the two terms, though the library and information science field often does not.

There have been very few attempts in library and information science to examine the more complex nature of the concept subject. The field, instead, has focused primarily on pragmatic approaches to aboutness rather than on philosophical explorations of subject. There is

⁷ Hans Wellisch, *Glossary of Terminology in Abstracting, Classification, Indexing, and Thesaurus Construction*, 2nd ed. (Medford, NJ: Information Today, 2000), 65.

no universal, philosophical understanding of the concept subject in library and information science; furthermore, it is not clear that one is actually possible, or even necessary. As scholarship in the 20th and 21st centuries has moved further away from positivist models, it has become more common, and in some cases *de rigueur*, to acknowledge that a single standard objective view of reality is neither possible, nor desirable. Thus, in the case of subject, it is unnecessary and impossible to have a philosophical approach that is shared by all. It is necessary to acknowledge that a universal objective view of the construct subject is not possible, but it is also important not to sink completely into the morass of extreme relativism. While it can be understood and accepted that independent observers may never completely agree on what constitutes a subject, it does not mean that one cannot identify the aboutness of a document. As Lancaster has stated, “If one must reach agreement on the precise definition of terms before pursuing any task, one is unlikely to accomplish much—in indexing or any other activity.”⁸ Extreme approaches to relativism are uninformed, unhelpful, and lead to infinite impotence in praxis. Obviously information work must be done, including the work of subject analysis. What is needed, then, is not necessarily an established, mature LIS theory of subject, but instead, greater understanding of the components of the more pragmatic aboutness. What is needed is further investigation, greater understanding, and richer description of subject analysis processes, particularly the conceptual analysis of documents; i.e., the processes involved in determining aboutness.

Library and information science literature supports Williamson’s statement that the subject analysis process is complex and not well understood.⁹ While researchers have been

⁸ F.W. Lancaster, *Indexing and Abstracting in Theory and Practice*. 3rd ed. (Champaign, Ill.: University of Illinois, 2003), 11.

⁹ Williamson, “Standards and Rules for Subject Analysis,” 157.

prolific in specific areas of subject access, such as thesaurus construction and facet analysis, many dimensions of subject analysis are still fraught with ambiguity. Library and information science literature contains countless descriptions of struggles associated with subject access to information, including difficulties related to the low levels of consistency in the application of indexing languages, the syntax and the semantics of indexing languages, and the searching of subject indexes and catalogs. Ultimately these, and myriad other difficulties, give rise to less than adequate document organization and result in impaired document retrieval. While it is not possible to address all of the challenges facing subject access in a single study, this research is a beginning. This study is an exploration into the most fundamental, and least understood, aspect of subject access to information; it is an investigation into the first step of the subject analysis process: the conceptual analysis.¹⁰

1.2 STATEMENT OF THE PROBLEM

Conceptual analysis is the attempt by an indexer, a cataloger, or other interested party to determine the aboutness of a document. The process has been described in various ways. Some say the analyst attempts to understand the nature of the document through an “interpretational process.”¹¹ Others view the process as seeing what the document covers, or as discerning the topics discussed or represented in the document.¹² Preschel describes it as finding the “indexable

¹⁰ The translation of the conceptual analysis into various indexing languages has been addressed in numerous, previous studies, and will not be a focus of this research.

¹¹ Birger Hjørland, *Information Science and Subject Representation* (Westport, Conn.: Greenwood Press, 1997), 5.

¹² Lancaster, *Indexing and Abstracting in Theory and Practice*, 13.

matter of the document.”¹³ The process, through which this analysis is accomplished, however, has never been adequately explained. Wilson states, “Manuals are ... curiously uninformative about how one goes about identifying the subject of a writing.”¹⁴ Despite centuries of organizing information in libraries, little is known about how a document is analyzed and its aboutness determined. In the 1980s and 1990s, some catalogers asserted the need for a cataloging code that would provide guidance in subject cataloging the way that the Anglo-American Cataloguing Rules guides the descriptive cataloging process. Despite some interest and much talk, this code has yet to materialize. Reynolds describes some of the impediments to such a code, including what she tellingly refers to as the “great mystery of subject cataloging.”¹⁵

Traditionally, the focus of subject analysis literature has been on the application of indexing languages, with the conceptual analysis process strangely underrepresented.

Williamson writes:

In the best of all possible worlds, standards, codes, and rules for subject analysis should be provided for both steps. However, there are few, if any, formal rules for the conceptual analysis of documents.... Standards, guidelines, and rules that do exist are all related to the tools and systems that make the translation step possible.¹⁶

There have been few attempts in library and information science literature to provide instruction or guidance for the conceptual analysis process. Iivonen and Kivimäki state, “Unfortunately,

¹³ Barbara M. Preschel, “Improved Communication between Information Centers through a New Approach to Indexer Consistency,” in *Communication for Decision-Makers, Proceedings of the American Society for Information Science, Vol. 8. 34th Annual Meeting, Denver November 7-11, 1971*, ed. by Jeanne B. North (Westport, Conn.: Greenwood, 1971), 363.

¹⁴ Patrick Wilson, *Two Kinds of Power: An Essay on Bibliographic Control* (Berkeley, Calif.: University of California Press, 1968), 73.

¹⁵ Sally Jo Reynolds, “In Theory There is No Solution: the Impediments to a Subject Cataloging Code,” *Library Quarterly* 59, no. 3 (1989): 231.

¹⁶ Williamson, “Standards and Rules for Subject Analysis,” 156.

most studies of indexing focus on terms, not concepts, and so do...most rules for indexing.”¹⁷

Discussions of subject analysis, even in cataloging and indexing textbooks, often assume a starting point at which the aboutness of a document is already understood, and move directly to the translation step. Todd states:

The literature seems to ignore or skate over the mental processes that take place during the subject analysis phase. There is little about how people actually decide what the subject of a document is, what they actually do to achieve this. The literature simply seems to assume that people just do it!¹⁸

The assumption that people can “just do it,” with the implication that they can do it satisfactorily, is problematic for the profession. This expectation is especially difficult for beginning catalogers and LIS students to fulfill. On the job and in the classroom, it is anticipated that they will be able to determine the aboutness of documents, but they are offered little or no guidance on how to do so. According to Todd, information professionals “need to understand the rules, procedures that govern the mental activities of subject analysis, not merely to establish causes to reduce the notorious inconsistency of indexers, but also to broaden the theoretical understanding of what is a fundamental operation of information practice.”¹⁹ In the texts that do attempt to provide instruction or guidance in conceptual analysis, the process described is often rather vague. These instructions tend to avoid discussion of how analysts identify important concepts; they focus instead on locations where concept-rich content might be found in a document. They are often no more than a list of bibliographic features that should be examined, such as tables of contents, chapter headings, introductions, etc.²⁰ Even Ranganathan, generally credited with

¹⁷ Mirja Iivonen and Katja Kivimäki, “Common Entities and Missing Properties: Similarities and Differences in the Indexing of Concepts,” *Knowledge Organization* 25, no. 3 (1998): 91.

¹⁸ Ross J. Todd, “Subject Access—What’s It All About?” *Catalogue Australia* 19, no. 3/4 (1993): 259.

¹⁹ Ross J. Todd, “Academic Indexing: What’s It All About?” *The Indexer* 18, no. 2 (1992): 102.

²⁰ Wilson, *Two Kinds of Power: An Essay on Bibliographic Control*, 73.

revolutionizing the discipline's understanding of bibliographic classification, does not explain how the analyst is to recognize a document's aboutness in order to generate a classification number.²¹ And of the few conceptual analysis methods offered in the library and information science literature, none could be considered standard practice, and not one has been evaluated for its effectiveness.

1.3 STATEMENT OF THE PURPOSE

This research is an attempt to better understand the processes involved in the conceptual analysis of documents. There is a need, as Todd states, “to broaden the theoretical understanding of what is a fundamental operation of information practice.”²² The purpose of this research is to examine how conceptual analysis is performed by individuals who have a vested interest in the LIS field, but who have not yet been exposed to the concepts and practices of information organization. The objectives of this research are to better understand how individuals approach the process of determining aboutness, what textual or bibliographic cues are used to find key aboutness data, and what patterns are evident in the conceptual analysis process.

This research is expected to provide greater understanding of the process for the purposes of teaching subject cataloging and indexing in library and information science degree programs. It may also be used in the workplace for training both professionals and paraprofessionals in the subject analysis process. The research, too, may be used for building a set of principles for

²¹ S.R. Ranganathan, *Prolegomena to Library Classification* (Bombay: Asia Publishing, 1967), 439-449; S.R. Ranganathan, *Elements of Library Classification* (Bombay: Asia Publishing, 1962), 103-135.

²² Todd, “Academic Indexing: What’s It All About?” 102.

guiding the conceptual analysis process. This investigation is the beginning of a much larger research project to build a theoretically sound, comprehensive, conceptual framework for subject access in the information professions, which will ultimately address not only the conceptual analysis process, but also the other steps involved in subject analysis. It is hoped that this research will provide greater insight into the “mystery of subject cataloging,”²³ and into the countless struggles associated with subject access, which result in less than adequate document organization and impaired document retrieval. It is hoped that the subject analysis framework will provide information professionals and students standardized methods for “this fundamental operation of information practice.”²⁴

1.4 RESEARCH QUESTIONS

The following are the research questions that were explored in this study:

- 1. How do participants determine the aboutness of an item? What activities are involved? What are the observable patterns in the aboutness determination process?**
- 2. What bibliographic, content, or visual features are key to the conceptual analysis process?**

²³ Reynolds, “In Theory There is No Solution,” 231.

²⁴ Todd, “Academic Indexing: What’s It All About?” 102.

1. How do participants determine the aboutness of an item? What activities are involved? What are the observable patterns in the aboutness determination process?

The primary focus of this research is to explore how individuals determine the aboutness of documents. This examination of the processes involved in aboutness determination has been conducted only with participants who have not yet been exposed to the concepts of information organization. Looking at how naïve, untrained participants approach conceptual analysis provides insights useful for developing an educational model of aboutness determination that can be included in the creation of a conceptual framework for subject analysis, and as a result, can improve subject access to information. The conceptual analysis process is poorly understood, and the answers to this research question will strengthen our understanding of this practice.

2. What bibliographic, content, or visual features are key to the conceptual analysis process?

This research also examines the participants' conceptual analysis processes to investigate which types of bibliographic features, content characteristics, and visual cues are useful in determining aboutness. The research examines where participants seek important aboutness data. This, too, will provide insights useful for developing an educational model of aboutness determination that can be included in the creation of a conceptual framework for subject analysis, and as a result, will improve subject access to information. The conceptual analysis process is poorly understood, and the answers to this research question will strengthen our understanding of this practice.

1.5 SIGNIFICANCE OF THE STUDY

In recent decades, keyword approaches to information retrieval have come into vogue. This approach is used not only in Internet search engines, but also in traditional retrieval tools such as catalogs, databases, and indexes. While keyword approaches are helpful in numerous ways, they are not without problems. Keyword-based methods rely on full-text searching, spider-created indexes, indexes containing the contents of entire database records, or the searching of abstracts, a process which often results in an overabundance of searchable “index terms.” The greater number of terms available to retrieve needed information, or “alternatively, the more access points a document admits of” results in higher recall and lower precision. “This is, in part, the scientific explanation of why keyword searching nearly always results in *infoglut*.”²⁵

Keyword-based approaches also fail to fulfill Cutter’s subject-related objects of the catalog. The collocation function of the catalog is significantly impaired in a keyword environment. Keywords are simply not predictable. Keyword approaches to retrieval do not address the semantic problems that are solved by using a controlled vocabulary; keywords do not address the ambiguities resulting from the lack of synonym and homograph control. Automated textual analysis, natural language processing, and artificial intelligence, while promising, have not yet reached their full potential for many of the same reasons. Machines remain unable to grasp meaning in text easily. Even though researchers have made great strides in machine processing of text, it is still difficult for automated systems to get past the indexing of alphanumeric characters and other symbols to the indexing of concepts; “Automatic techniques

²⁵ Elaine Svenonius, “The Epistemological Foundations of Knowledge Representation,” *Library Trends* 52, no. 3 (2004): 573. Emphasis mine.

for identifying subjects of documents have been faulted for being term- rather than concept-based.”²⁶

Due to the unfulfilled promises of these technological advances, human-based subject analysis procedures are still (and will continue to be) necessary in order to provide patrons with adequate systems of content-accessibility. It is, therefore, still important to strive for better performance in subject analysis tasks. In order to achieve improved performance, efforts must be made to better understand the processes of subject analysis. With greater insight into how subject analysis is performed, it may be possible to overcome some of the many problems of subject access to information.

This research is an attempt to discover how humans analyze documents for aboutness determination. It was conducted for the purpose of developing a conceptual analysis model to inform teaching, research, and praxis. The findings will also become the foundations for a larger body of work focusing on the development of a theoretically sound conceptual framework for the entire subject analysis process attempting to bring together independent, fragmented notions related to subject analysis that have been established over the centuries. It is expected that patterns identified in the conceptual analyses and the use of various bibliographic features, such as chapter headings or first sentences, will also further this goal. This research provides insight into how humans analyze documents for determining aboutness. Relatively few LIS researchers address conceptual analysis procedures, so this research also helps to fill in some of the gaps found in the library and information science literature. The significance of this study, however, ultimately lies in any and all of its contributions to education, research, and the theory and practice of subject analysis.

²⁶ Svenonius, “The Epistemological Foundations of Knowledge Representation,” 574.

1.6 DEFINITION OF TERMS

The terminology of subject access to information can vary considerably in library and information science literature. It is therefore necessary to address the use of terminology in this research. The following section contains the more ambiguous terms that are applicable to this research study.

Aboutness: any concept or combination of concepts representing the content of a document; the entirety of the subjects and topics covered by the text of a document either explicitly or implicitly.²⁷ It is used nearly synonymously with *subject* and *subject matter*. This is the currently favored term in library and information science literature. The researcher uses this term to address the intrinsic, content-related properties of a document. The researcher assumes that documents can have a relatively fixed aboutness, while acknowledging the existence of multiple meaning representations, which this researcher refers to as *subject*.

Aboutness Statement: the result of the conceptual analysis process. It is a written account describing the document's topical contents, as well as descriptions of form and/or genre, geographical information, chronological periods, and names. It may be a sentence or a paragraph. It describes the essential concepts found in the document. It is similar to a summary or an abstract.

²⁷ Wellisch, *Glossary of Terminology*, 5.

Assumption Making: the process in aboutness determination of making guesses or some initial judgments about the nature of the items. There are several different types of assumption making: making assumptions of macro-level aboutness, making assumptions of chapter-level aboutness, and making assumptions of micro-level aboutness.

Categorizing: the process by which concepts are recognized and understood through their placement in either formal categories or ad hoc personal groupings.

Concept: a unit of thought or an idea; a mental construct.²⁸

Conceptual Analysis: the aboutness determination process. It may also be referred to as *subject determination* or *subject identification*. Some authors imprecisely refer to this process as *subject analysis*, while others refer to it as *content analysis*, two terms that have other well-defined meanings.

Content Analysis: a research method that uses a set of procedures to make valid inferences from text.²⁹ It is the systematic, objective, quantitative analysis of message characteristics.³⁰ Qualitative research also uses content analysis as a data analysis technique for systematically describing the form and content of written and spoken material.

²⁸ Ingetraut Dahlberg, *On the Theory of the Concept* (N.p: n.p., 1975), 2.

²⁹ Robert Philip Weber, *Basic Content Analysis* (Newbury Park, Calif.: Sage, 1990), 9.

³⁰ Kimberly A. Neuendorf, *The Content Analysis Guidebook* (Thousand Oaks, Calif.: Sage, 2002), 1.

Document: any combination of medium and message;³¹ an item or information package (print or non-print, remote or tangible) that can be indexed or cataloged. Examples of documents include Web pages, books, films, electronic resources, images, articles, texts, compact discs, etc.

Finding context: the process of seeking relationships and connections among the concepts within the text to help the subject analyst to interpret meaning; it may involve finding other passages of text, sets of facts, or conditions related to the concept. Activities such as making associations and categorizing help the subject analyst to understand the item by its perceived or actual relationships to other items.

Indexing: the process of assigning terms to a document in order to translate the aboutness of that document into a particular system of controlled vocabulary.

Indexing Languages: an umbrella term used to describe artificial languages, such as classification schemes, thesauri, descriptor lists, subject heading systems, and the newer terms *ontologies* and *taxonomies*. Nearly synonymous terms might include *documentary languages* or *controlled vocabularies*.

Input Process: The input process comprises activities such as collecting data, encountering data, seeing or noticing data, having data cross a subject analyst's path, etc. It is the stage in aboutness determination in which data enters the subject analyst's consciousness.

³¹ Wellisch, *Glossary of Terminology*, 22.

Interpreting: the process of translating passages of text into one's own words. This may be necessary to figure out the meaning of the sentence, and it also provides a way to restate or repeat the information in more comfortable language.

Making associations: the process that creates connections between the content of items and memories of familiar documents, personal experiences, or subject knowledge.

R-cubed (R³) Processes: The R³ processes are a set of supporting activities performed during aboutness determination. These processes include refuting, refining, and reinforcing. They are closely tied to assumption making.

Reasoning: the process of clarifying concepts, figuring out content, or trying to determine the meaning of various passages of text. It goes beyond simply seeing the information; it entails deciphering the information and creating something sensible from it.

Refining: Refinement is the evolution of an idea; the process of moving from a general idea of aboutness to a more detailed and precise understanding of it.

Refuting: Refutation is the process of recognizing information that proves an assumption to be false, forcing the subject analyst to rethink previous assumptions. This may lead to refining.

Reinforcing: Reinforcement is the process of finding information to support an assumption. It allows the subject analyst to move forward knowing that he or she is on the right track.

Reviewing: the process of reexamining what has been discovered or is already known.

Sense-making Activities: These activities are a set of supporting processes performed during aboutness determination. These include: reasoning, finding context, interpreting, reviewing, categorizing, and making associations. This is not related to the research method developed by Brenda Dervin and others referred to as Sense Making.

Subject: any concept or combination of concepts representing the content of a document; the summarization of the topics of a document.³² Other nearly synonymous terms include *aboutness*, *subject matter*, and *topic*. At times, *domain*, *field*, *content*, *information*, *data*, *discipline*, *theme*, and *concept* have been used as synonyms.³³ This researcher makes a distinction between the terms *aboutness* and *subject*. The researcher assumes that documents can have a relatively fixed aboutness, while acknowledging the existence of multiple meaning representations, which this researcher refers to as *subject*.

Subject Analysis: the process of determining the aboutness of a document and translating it into one or more indexing languages. Unlike the rather inexact usage in the library and information science literature, this researcher emphasizes that *subject analysis* includes both the conceptual analysis stage and the translation of the determined aboutness into the preferred classification and controlled vocabulary systems.

³² Wellisch, *Glossary of Terminology*, 65.

³³ Birger Hjørland and Lykke Kylesbech Nielsen, "Subject Access Points in Electronic Retrieval," chap. 5 in *Annual Review of Information Science and Technology, Volume 35*, ed. by Martha E. Williams (Medford, NJ: Information Today, 2001), 252; Birger Hjørland, "Towards a Theory of Aboutness, Subject, Topicality, Theme, Domain, Field, Content...and Relevance," *Journal of the American Society for Information Science* 52, no. 9 (2001): 776.

Text reduction: the process of taking a large portion of text and summarizing its contents; the conscious or unconscious process of condensing a large number of specific statements into a briefer, more general statement (or statements) that explicitly or implicitly incorporates the content of the specific statements. It involves creating a broad macro-proposition that incorporates a series of micro-propositions. While the individual details may be lost (or subsumed under the broader statement), the macro-propositions describe the general ideas common to those micro-statements.³⁴ Text reduction comprises three different activities in the aboutness determination process: summarizing, note taking, and extracting.

1.7 ASSUMPTIONS

The following sections contain descriptions of the basic assumptions that have molded this research study. It begins with the researcher's assumptions on the nature and importance of subject access to information. Sections addressing epistemological and ontological assumptions follow.

1.7.1 General Assumptions

The researcher assumes that subject access to information is important, necessary, and still desirable, and that subject access must be provided to fulfill the objectives of the catalog.³⁵ The

³⁴ Clare Beghtol, "Bibliographic Classification Theory and Text Linguistics: Aboutness Analysis, Intertextuality, and the Cognitive Act of Classifying Documents," *Journal of Documentation* 42, no. 2 (1986): 89-90.

³⁵ Cutter, *Rules for a Dictionary Catalog*, 12.

researcher assumes that the *objects* of the catalog, as outlined by Cutter and expanded by others over time, are still important and still relevant to today's information practices. The researcher assumes that it is desirable to strive for greater quality and effectiveness in the provision of subject access to information. Despite some inroads in keyword access, it is inadequate for many users' needs because it creates information overload. It does not fulfill the collocation function of the catalog as described by Cutter, and it does not address difficulties associated with synonyms and homographs. The researcher assumes that subject analysis will continue to be, for the foreseeable future, a human-performed activity due to the inadequacies of automated text analysis and the deficiencies of keyword search capabilities.

The researcher also assumes that the meaning of the term subject may connote layers of complexity that are beyond the scope of this current research study, and these layers of complexity are unimportant in the design and execution of this study. Lancaster has said that the terms subject and aboutness "are expressions that seem acceptable to most people and to be understood by them," and that he had no "intention to enter into a philosophical discussion of the meaning of about or aboutness."³⁶ The researcher agrees completely with Lancaster on this point. Sparck Jones distinguishes between *aboutness* and *meaning representation*. She states that it is aboutness that concerns the information professional.³⁷ This researcher makes a similar distinction, but uses the term subject in place of meaning representation. It is, therefore, assumed that the term aboutness can be understood without extensive, philosophical debate. In this study, the term aboutness refers to the recorded contents of documents, not to actual events or ideas.

³⁶ Lancaster, *Indexing and Abstracting in Theory and Practice*, 13. Emphasis mine.

³⁷ Karen Sparck Jones, "Problems in Representation of Meaning in Information Retrieval," in *The Analysis of Meaning: Informatics 5, Proceedings of a Conference Held by the Aslib Informatics Group and the BCS Information Retrieval Specialist Group 26-28 March 1979, The Queen's College, Oxford*, ed. by Maxine MacCafferty and Kathleen Gray (London: Aslib, 1979), 194.

Experiences and ideas cannot be cataloged or categorized without being communicated through some record of those ideas and experiences.³⁸ It is the record of ideas and experiences that is being analyzed in the conceptual analysis process, not the actual ideas, meaning, or experiences.

1.7.2 Philosophical Assumptions

No discussion of a researcher's assumptions is complete without addressing the researcher's epistemological, ontological, and methodological assumptions. Every researcher is guided and molded by his or her own principles, and his or her research reflects those principles in explicit as well as subtle ways.

These principles combine beliefs about ontology (What kind of being is the human being? What is the nature of reality?), epistemology (What is the relationship between the inquirer and the known?), and methodology (How do we know the world, or gain knowledge of it?).³⁹

Without any explanation of a researcher's principles, i.e., his or her epistemological, ontological, and methodological assumptions, the context for the design and execution of a study are lost. Without context, understanding is severely limited.

In the spirit of reflexivity, it is important to disclose that this researcher is situated in the constructivist-interpretive paradigm,⁴⁰ with a dash of pragmatism thrown in for good measure. As such, this researcher firmly rejects positivism, which maintains a naïve realistic view of the world. "We do not believe that criteria for judging either reality or validity are absolutist, but

³⁸ Dahlberg, *On the Theory of the Concept*, 5.

³⁹ Norman K. Denzin and Yvonna S. Lincoln, "Introduction: The Discipline and Practice of Qualitative Research," in *Handbook of Qualitative Research*, 2nd ed. by Norman K. Denzin, Yvonna S. Lincoln (Thousand Oaks, Ca.: Sage, 2000), 19.

⁴⁰ The researcher embraces the constructivist-interpretivist paradigm as outlined by Lincoln and Guba, Schwandt, and others in their discussions of qualitative research in the *Handbook of Qualitative Research*, 2nd ed. by Norman K. Denzin, Yvonna S. Lincoln (Thousand Oaks, Ca.: Sage, 2000). See specific citations throughout this section.

rather are derived from community consensus regarding what is real, what is useful, and what has meaning.”⁴¹ Positivism views knowledge as something that can be determined solely through observation, experimentation, and/or measurement. It focuses on objectively-examined concrete entities.⁴² But this researcher believes that, “Objective reality can never be captured. We can know a thing only through its representations,”⁴³ that “all observation is theory laden or that there is no possibility of theory-free observation or knowledge,”⁴⁴ and that “understanding is not, in the first instance, a procedure- or rule-governed undertaking; rather, it is a very condition of being human. Understanding is interpretation.”⁴⁵ It is, therefore, this researcher’s belief that “all research is interpretive; it is guided by a set of beliefs and feelings about the world and how it should be understood and studied.”⁴⁶ This researcher, then, concurs with the “rejection of the blend of scientism, foundationalist epistemology, instrumental reasoning, and the philosophical anthropology of disengagement that has marked mainstream social sciences.”⁴⁷

This researcher embraces the constructivist-interpretive paradigm, which focuses less on the establishment of a single truth or sole explanation, but instead aims to understand human action.

⁴¹ Yvonna S. Lincoln and Egon G. Guba, “Paradigmatic Controversies, Contradictions, and Emerging Confluences,” in *Handbook of Qualitative Research*, 2nd ed. by Norman K. Denzin, Yvonna S. Lincoln (Thousand Oaks, Ca.: Sage, 2000), 167.

⁴² Hjørland, *Information Science and Subject Representation*, 61.

⁴³ Denzin and Lincoln, “Introduction: The Discipline and Practice of Qualitative Research,” 5.

⁴⁴ John K. Smith and Deborah K. Deemer, “The Problem of Criteria in the Age of Relativism,” in *Handbook of Qualitative Research*, 2nd ed. by Norman K. Denzin, Yvonna S. Lincoln (Thousand Oaks, Ca.: Sage, 2000), 877.

⁴⁵ Thomas A. Schwandt, “Three Epistemological Stances for Qualitative Inquiry,” in *Handbook of Qualitative Research*, 2nd ed. by Norman K. Denzin, Yvonna S. Lincoln (Thousand Oaks, Ca.: Sage, 2000), 194.

⁴⁶ Denzin and Lincoln, “Introduction: The Discipline and Practice of Qualitative Research,” 19.

⁴⁷ Schwandt, “Three Epistemological Stances for Qualitative Inquiry,” 190.

Constructivism means that human beings do not find or discover knowledge so much as we construct or make it. We invent concepts, models, and schemes to make sense of experience, and we continually test and modify these constructions in the light of new experience. Furthermore, there is an inevitable historical and sociocultural dimension to this construction. We do not construct our interpretations in isolation but against a backdrop of shared understandings, practices, language, and so forth.⁴⁸

To understand human action, “the inquirer must grasp the meanings that constitute that action,”⁴⁹ to understand the meaning of human action requires grasping the subjective consciousness or intent of the actor from the inside.⁵⁰ Constructivists, then, interpret the context-dependent actions of the actors.⁵¹ This researcher recognizes that “we are intimately a part of any understanding we have of what counts as knowledge or of any claim we make to knowledge.”⁵² Thus, the constructivist-interpretive paradigm, “assumes a relativist ontology (there are multiple realities), a subjectivist epistemology (knower and respondent cocreate understandings), and a naturalistic set of methodological procedures.”⁵³

A very important point to be made is that a relativist ontology “need not and must not be seen in terms of *anything goes*. Rather, relativism is nothing more than our condition in the world.”⁵⁴ This researcher, therefore, does not accept the extreme view that all interpretations are equal and valid, and that it is “impossible to distinguish any particular interpretation as more

⁴⁸ Ibid.,” 197.

⁴⁹ Ibid., 191.

⁵⁰ Ibid., 192.

⁵¹ Ibid., 191.

⁵² Smith and Deemer, “The Problem of Criteria in the Age of Relativism,” 877.

⁵³ Denzin and Lincoln, “Introduction: The Discipline and Practice of Qualitative Research,” 20.

⁵⁴ Smith and Deemer, “The Problem of Criteria in the Age of Relativism,” 878.

correct, or better or worse than any other.”⁵⁵ As Bernstein states, “We can and do make comparative judgments and seek to support them with arguments and the appeal to good reason.”⁵⁶ Schwandt, as cited by Smith and Deemer, notes “that learning to live with uncertainty and the impossibility of final vindication does not mean that we must abandon commitment and our ability to make judgments.”⁵⁷ Smith and Deemer concur and invoke pragmatism and social responsibility as arbiters of that judgment. They state that, “Any judgments about the goodness or badness of research [and, therefore, any interpretation] must themselves be practical and moral judgments and not epistemological ones.”⁵⁸ This appeal to commonsense pragmatism is most welcome, especially when approaching the conceptual analysis process.

1.7.3 Philosophical Assumptions and Aboutness

In addition to discussing the philosophical assumptions of the researcher, it is important to address how these philosophical assumptions address the concept of aboutness. It has been established that this researcher does not accept the assumptions of the positivist paradigm with its naïve realistic worldview. Aboutness, therefore, cannot always be reduced simply to “objective” measurable facts of a document; subjects are not always self-evident. In some cases, the primary aboutness may never be named in the document. Yet, in the practical application of subject analysis, a positivist approach is not uncommon. As a result, only surface information, i.e., the most observable information, may be taken into consideration in the analysis. At times,

⁵⁵ Schwandt, “Three Epistemological Stances for Qualitative Inquiry,” 200.

⁵⁶ Richard J. Bernstein, “What is the Difference that Makes a Difference? Gadamer, Habermas, and Rorty,” in *Hermeneutics and Modern Philosophy*, ed. by B.R. Wachterhauser, (Albany, NY: SUNY Press, 1986), 358.

⁵⁷ Thomas A Schwandt, “Farewell to Criteriology,” *Qualitative Inquiry* 2 (1996): 58-72 quoted in Smith and Deemer, “The Problem of Criteria in the Age of Relativism,” 885.

⁵⁸ *Ibid.*, 886.

this positivist approach may be all that is necessary for a complete, thorough analysis, but in other cases, this approach will not suffice. A model of the conceptual analysis process cannot be based solely on a positivist epistemology.

In the constructivist paradigm, the determination of aboutness is seen as a purely interpretive, hermeneutical process. Documents are not seen as having fixed, innate subjects waiting only to be recognized. Instead, the task of the analyst is to understand the meaning of the text by analyzing both the parts and the whole in order to develop an interpretation that is derived through the filter of individual experiences, background, and knowledge. Outhwaite, as explained by Schwandt, believes that:

Interpretivist epistemologies can in one sense be characterized as hermeneutic because they emphasize that one must grasp the situation in which human actions make (or acquire) meaning in order to say one has an understanding of the particular action. This view draws upon the familiar notion of the hermeneutic circle as a method or procedure unique to the human sciences: In order to understand the part, (the specific sentence, utterance, or act), the inquirer must grasp the whole (the complex of intentions, beliefs, and desires, or the text, institutional context, practice, form of life, language game...) and vice versa.⁵⁹

Some interpretivists might view conceptual analysis as an impossible process in which no two persons can understand the same aboutness since the process engages the individuals' experiences, knowledge bases, and interpretive abilities. But, an acceptance of a completely subjective view of the analysis process is untenable for information practice. Svenonius states,

The view that subject determination is wholly subjective is disturbing...since there is a fair amount of agreement among people on how to use the word about, there must be common conventions governing its use. Further, to assume that perceptions of aboutness are subjective does not allow for mistakes, whereas mistakes can be made: to say that *Hamlet* is a treatise on thermodynamics is to be mistaken.⁶⁰

⁵⁹ William Outhwaite, *Understanding Social Life: The Method Called Verstehen* (London: George Allen & Unwin, 1975) quoted in Schwandt, "Three Epistemological Stances for Qualitative Inquiry," 193.

⁶⁰ Elaine Svenonius, *The Intellectual Foundation of Information Organization* (Cambridge, Mass.: MIT Press, 1999), 46.

Mai states that this belief in complete subjectivity “could imply that any interpretation of a document could be as good as any other, which would generate tremendous problems for classification and indexing.”⁶¹ A position that all interpretations are equal is both naïve and completely untenable for practice.

Regarding these questions, the researcher takes a pragmatic view, concurring with Beghtol who makes the very useful distinction between the concepts of *aboutness* and *meaning*. She states that documents have a relatively permanent aboutness that is identifiable even though documents can have a variable number of messages or meanings as well. She points out that even though a document can have different meanings, the document itself is unchanging.⁶² Accordingly then, an assumption grounding this research is that the conceptual analysis process can be performed with some degree of reliability. This researcher believes that, while conceptual analysis is a highly interpretive process, the unchanging content and fixed properties of the document can guide and assist analysts with their interpretations. While the specific experiences and knowledge of the individual analysts will vary, the document generally does not; thus the researcher believes that through a close and thorough examination of the fixed content, multiple analysts will interpret the aboutness of the item, if not identically, then similarly.⁶³

The ability to achieve a reliably consistent and similar interpretation is strengthened also by shared frameworks or discourse communities, which may be based on common professional interests, educational experiences, common citizenship, geographical location, common

⁶¹ Jens-Erik Mai, “Organization of Knowledge: An Interpretive Approach,” in *Information Science at the Dawn of the Millennium, Proceedings of the Annual Conference of the Canadian Association of Information Science*, ed. by EG Toms, DG Campbell, and J.Dunn, (Toronto: CAIS, 1998), 237.

⁶² Clare Beghtol, “Bibliographic Classification Theory and Text Linguistics,” 84-85.

⁶³ For example, if the item contains words and concepts related to *government*, *Generation X*, and *political issues* and these words appear frequently in the text, it is much more likely that the analysts will assert that the item is about Generation X’s views of government and political issues, and less likely that they will state the item is about breeding rabbits, cooking lima beans, organizing symposia, or some other unrelated topic.

language, etc. Members of these communities share a certain context and background through which their worldview is filtered; these communities provide a common framework for viewing and interpreting reality and knowledge. This is what Maxwell is describing when he states:

How we describe the world is an interpretation....That much of the time we can agree on *throwing* versus *tossing* [referring to an observation, by more than one person, of a particular classroom event involving an eraser] is not because reality stand over against us, but because we happen to share a theoretical or pretheoretical disposition and a language for depicting movement in space and time...a framework for resolving such disagreements, a framework provided in a large part by taken-for-granted ideas about time, space, physical objects, behavior, and our perceptions of these.⁶⁴

Therefore, “if we start from the same perspective, sharing a language and so on, we will tend to describe/interpret things in basically the same ways. If we start from different theoretical or pretheoretical perspectives, our descriptions/interpretations of events and actions will differ.”⁶⁵

As practitioners of librarianship, as citizens of the same nation in the same historical epoch, as speakers of the same language exposed to the same media, etc., those engaged in information organization are members of a discourse community with a shared “system or structure of—explicit and implicit—assumptions about the world.”⁶⁶ Therefore, it should be possible for those performing the interpretive activities of conceptual analysis, on materials with fixed content, to arrive at fairly similar notions of aboutness. The researcher believes that through a close and thorough examination of the fixed content, multiple analysts sharing a common framework will interpret the aboutness of the item similarly (not identically), if they are focused on the aboutness of the item, rather than on the multiple-meaning subject. Differences in interpretations will always be encountered, but the researcher assumes that the similarities will be greater.

⁶⁴ Joseph A. Maxwell, “Understanding and Validity in Qualitative Research,” *Harvard Educational Review* 62, no. 3 (1992): 286

⁶⁵ Smith and Deemer, “The Problem of Criteria in the Age of Relativism,” 883.

⁶⁶ Mai, “Organization of Knowledge: An Interpretive Approach,” 239.

1.8 LIMITATIONS OF THE STUDY

The concepts grounding this research have primarily come from library and information science and social sciences literature. While this is not to say that works reflecting information from other knowledge domains have not crept into this research, the primary influences are from library and information science and social sciences literature. Whether this is a limitation or not must be decided by the reader. Another limitation is that the documents examined in preparation for this study are solely English language materials or materials that have been translated into the English language. These items primarily reflect the thoughts of Anglo-American catalogers from the mid-19th century to the present. If key works on relevant topics have not been translated into English, they may have been missed despite an extensive review of the literature.

Another limitation that must be considered is that this research, focused on the determination of aboutness, used only books as the items to be analyzed in the study. Although these textual works included some illustrative matter, the study does not address issues related to documents containing chiefly non-textual information, e.g., graphics, numerical data, symbols, and works of art. The techniques involved in analyzing primarily non-textual materials are significantly different from the techniques used to analyze text. This research also focused only on non-literary, non-fiction items. The processes used to provide subject access to creative literature are vastly and significantly different from those investigated in the current study.

This research study employed qualitative research methods to investigate the participants' approaches to conceptual analysis. Despite in-roads in recent decades, there is still a stigma attached to qualitative research endeavors by those entrenched in the positivist and post-positivist paradigms. This may be seen as a limitation by some, though not by this researcher. Due to the

qualitative nature of the study, several possible limitations can be identified that are inherent in a qualitative approach. The necessarily small sample size is one of these possible limitations. A small sample size limits any generalizations on a large scale, though it allows for a more in-depth exploration and understanding of the phenomenon. Another limitation, in the eyes of positivists, is the inability to replicate the study, which is typical of most qualitative inquiries. One limitation that is related to data collection methods is that think-aloud processes, which were used to capture the thoughts of the participants, can only capture spoken thoughts. Internal thoughts that are not verbalized cannot be recorded. For example, one participant in the study stated: “Something I had trouble doing was verbalizing what I was seeing when I was skimming. It’s hard to say what you saw. I only verbalized when I found something that was interesting.” This data collection technique is most certainly flawed, but until processes are created to record thoughts directly, it is one of the better options available.

Another possible limitation comes from the participants being studied: LIS graduate students at the University of Pittsburgh. While the group is appropriate for the research study, the sample was self-selected and largely homogenous in demographic characteristics. In the group of twelve participants, only one participant was not Caucasian, three were male, and only four were above the age of 30. This study’s sample is therefore mostly one of young, white, English-speaking, native-born American women who have recently finished their undergraduate degrees. This obviously does not provide much diversity in terms of cultural backgrounds. This study, therefore, cannot address issues of cultural differences.

Issues of subjectivity can also be raised based on the interpretive nature of the data analysis process. The primary measurement tool used in qualitative research is the researcher, and the quality of the research findings is dependent on the abilities of the researcher. This

researcher believes that charges of subjectivity are deceptive because, in fact, “*all* research is interpretive; it is guided by a set of beliefs and feelings about the world and how it should be understood and studied;”⁶⁷ therefore, all research is subjective. Along with subjectivity, issues of bias are raised in relation to qualitative research. This researcher does not believe that all biases can be “neutralized.” The only way to address the issues of bias and subjectivity is to acknowledge their existence, and to be as open about them as possible. Many of these possible limitations are seen as inherent in the qualitative research process, but in reality, they are present in all research situations. What this researcher can do is to acknowledge issues without hesitation and accept that all research is flawed to one extent or another, whether it comes from the most “objective” of positivists or the most “subjective” of constructivists. Readers must determine for themselves how much these limitations affect their own interpretation of the study’s results and conclusions.

⁶⁷ Denzin and Lincoln, “Introduction: The Discipline and Practice of Qualitative Research,” 19. Emphasis mine.

CHAPTER 2.0 LITERATURE REVIEW

There is a significant amount of literature addressing the broad topic of subject access to information. However, only a small portion of that literature addresses the conceptual analysis process. This literature review, therefore, focuses only on the most relevant components of the subject access literature. These are descriptions of conceptual analysis methods and explorations into the nature of aboutness.

2.1 CONCEPTUAL ANALYSIS METHODS

While conceptual analysis, or the determination of aboutness, can be found in library and information science monographs and journal articles written throughout the last century, the process has rarely been explored in-depth. In the early literature of classification and subject indexing, little information is provided about the conceptual analysis process. In most texts, it is simply assumed that catalogers and indexers can determine the aboutness of a document. These texts focus instead on translating aboutness into controlled vocabulary or classification notation. Richardson, for example, provides no guidance for conceptual analysis, except to say that items

are classed together based on likeness.⁶⁸ Sayers echoes what Dewey described in the introduction to the *Decimal Classification*: “In determining the subject, consider the predominant tendency or obvious purpose of a book, and its author’s intention in writing it.”⁶⁹ Maltby states, “Classifiers must also see that they distinguish the true specific subject of each book or document and must beware of classifying by title only.”⁷⁰ Mann refers to likeness among items, but does not explain what is actually to be compared, or how to find the “value of the content” of which she wrote.⁷¹ Bliss states that careful examination of the book might be needed if the subject is not self-evident.⁷² How this is done is not explained. Brown, in fairly typical fashion, writes:

The subject content of a document comprises a number of concepts or ideas ... the indexer selects those concepts which will be used in the index description of the document for the purposes of its identification and retrieval in response to requests for information. In producing this subject, or conceptual, analysis the indexer names the selected concepts in whatever words, or terms, he chooses.... Exactly which concepts constitute “important” concepts will, of course, depend on the judgment of the indexer.⁷³

Some authors provide insight as to what may be important in the process, but stop short of proposing methods of their own. Todd states that the conceptual analysis process is not understood, and that the library and information science literature ignores it. It is a “nebulous process of reduction, semantic condensation, or summarization (the process of identifying and

⁶⁸ Ernest Cushing Richardson, *Classification: Theoretical and Practical*, 3rd ed. (Hamden, Conn.: Shoe String Press, 1964), 40.

⁶⁹ W. C. Berwick Sayers, *An Introduction to Library Classification: Theoretical, Historical and Practical*, 9th ed. (London: Graft, 1954), 179.

⁷⁰ Arthur Maltby, *Sayer’s Manual of Classification for Librarians*, 5th ed. (London: Andre Deutsch, 1975), 100.

⁷¹ Margaret Mann, *Introduction to Cataloging and the Classification of Books* (Chicago: ALA, 1930), 38-43.

⁷² Henry Evelyn Bliss, *The Organization of Knowledge in Libraries: And the Subject Approach to Books* (New York: Wilson, 1939), 115-118.

⁷³ A.G. Brown, *An Introduction to Subject Indexing* (London: Clive Bingley, 1982), frames 40, 47, and 51.

selecting subjects which are significant indicators of the contents and which together sum up the message of the document).” He states that one key factor to success is the ability to discriminate between significant and trivial information and aspects, so as to determine appropriately the subjects of documents. He reviews some of the processes that have been presented in the literature, though he states they provide little insight into the mental processes entailed in conceptual analysis.⁷⁴ Farradane examines the relationships between concepts in the subject analysis process, and nine ways in which those relationships can be expressed. He feels it is important to distinguish between concrete and abstract concepts, and states, “the first step is to have a clear idea about the subject of a document.” He notes that aboutness can be determined by only one person (usually the indexer), and that different persons may perceive different meanings in a document, but only one meaning can be indexed.⁷⁵ Chu and O’Brien point out the need for research examining natural language aboutness statements.⁷⁶ Their study determined five factors that influence the subject analysis process: discipline-orientation of the text, factual versus subjective texts, complexity of the subject, presence of bibliographic apparatus (such as abstracts, subtitles, chapter headings, etc.), and clarity of the text. They also stress the importance of conducting the conceptual analysis independently from the translation stage. If the analyst is “approaching a text with the intention of fitting the subject matter into their system of vocabulary, the indexer may lose some of the nuances which could enhance the subsequent index

⁷⁴ Todd, “Subject Access—What’s It All About?” 260; Todd, “Academic Indexing: What’s It All About?” 101.

⁷⁵ Jason Farradane, “Relational Indexing, Part II,” *Journal of Information Science* 1, no. 6 (1980): 313-314.

⁷⁶ Clara M. Chu and Ann O’Brien, “Subject Analysis: the Critical First Stage in Indexing,” *Journal of Information Science* 19 (1993): 440.

terms.”⁷⁷ This statement echoes Langridge’s idea of how the conceptual analysis process should be conducted.

[Conceptual analysis] is frequently not seen clearly as a distinct activity: it tends to merge with translation and results inevitably suffer. Translation, by definition, is related to a particular scheme ... but [conceptual analysis] is independent of any scheme. The contents of a book would be what they are even if there were no classification or subject heading scheme in existence.... The [conceptual analysis] is always the same because it relates to the document and not the system.... To think of subjects solely in such terms [in the context of DDC, LC, and UDC] is to restrict severely one’s vision.... Limited vision is not the mark of a professional.⁷⁸

Collantes notes that the conceptual analysis process is perceptual. She states, “An indexer must perceive the attributes of a document. Perception of one or more attributes or failure to see certain attributes will affect the next process,” which is the translation into an indexing language.⁷⁹ Swift et al. list theoretical orientation, epistemology, point of view, research methods, approach, discipleship, content of theory, and form as important to aboutness.⁸⁰ Ahmad provides some insights into the newspaper indexing process that are also applicable to more general subject analyses. He mentions that indexers must understand the language of the documents and terminology, comprehend the overall message, scan headlines and first paragraphs, underline significant words, identify indexable content, and interpret the words and terms into the indexing language.⁸¹ Cleveland and Cleveland discuss the backgrounds and

⁷⁷ Chu and O’Brien, “Subject Analysis: the Critical First Stage in Indexing,” 451.

⁷⁸ D.W. Langridge, *Subject Analysis: Principles and Procedures* (London: Bowker-Saur, 1989), 6-8.

⁷⁹ Lourdes Y. Collantes, “Degree of Agreement in Naming Objects and Concepts for Information Retrieval,” *Journal of the American Society for Information Science* 46, no. 2 (1995): 117.

⁸⁰ D.F. Swift, V. Winn, and D. Bramer, “A Multi-Modal Approach to Indexing and Classification,” *International Classification* 4, no. 2 (1977): 91; D.F. Swift, V. Winn, and D. Bramer, “‘Aboutness’ as a Strategy for Retrieval in the Social Sciences,” *Aslib Proceedings* 30, no. 5 (1978): 186.

⁸¹ Nazir Ahmad, “Newspaper Indexing: An International Overview,” *The Indexer* 17, no. 4 (1991): 259.

orientations of the authors and the readers as things to consider, as well as the notions of major and minor themes, bibliographic components to examine, and grammatical style.⁸²

Other authors focus only on where key concepts might be found in a document. They often provide little more than a list of bibliographic features to consider in the analysis.⁸³ One of the earliest of these comes from Dewey. In simplified spelling, he states in his second edition of the *Decimal Classification*:

The title, tho sometimes misleading, and always to be verified by the work itself, is usually of great help in deciding the character of the book. The author is supposed to choose it to indicate his subject, and unless there is reason to doubt it, it may fairly be trusted. Always examin the table of contents, which is the best guide to the true subject. To avoid mistakes, put by on an “under consideration” shelf, books you cannot locate, till you can examin more at leisure or consult some expert competent to decide their true subject and relation. Specialist ar usually glad to examin new books in their departments, enuf to classify them.⁸⁴

The instructions in the fifteenth edition of the *Decimal Classification* are not vastly improved. “There are several methods of deciding upon the subject of a book. These may be used in varying combinations where the subject is obscure.” What follows is a list of items to consult: title, table of contents, chapter headings, and preface. If these fail, reference books and specialists may be consulted.⁸⁵ To this list, the 22nd edition of the *Dewey Decimal Classification and Relative Index* adds: chapter sub-headings, scanning the text itself, the book jacket, the bibliographic references, and the index. It also specifies author’s purpose as a content

⁸² Donald B. Cleveland and Ana D. Cleveland, *Introduction to Indexing and Abstracting*, 3rd ed. (Englewood, Colo.: Libraries Unlimited, 2001), 98.

⁸³ Wilson, *Two Kinds of Power: An Essay on Bibliographic Control*, 73.

⁸⁴ Melvil Dewey, *Decimal Classification and Relativ Index for Arranging Cataloging and Indexing Public and Private Libraries and for Pamflets, Clippings, Notes, Scrap Books, Index Rerums, etc.*, 2nd ed., rev. and greatly enlarged. (Boston, Mass.: Library Bureau, 1885): 63.

⁸⁵ Melvil Dewey, *Decimal Classification*, Standard (15th) ed. (Lake Placid Club, N.Y.: Forest Press, 1951), xv.

examination strategy.⁸⁶ Reynolds describes the features of a bibliographic item to be examined, and that they must be examined through skimming, not reading. These include the table of contents, bibliography, indices, annotations, summaries, abstracts, introductions, chapter and section headings, and book jacket blurbs, as well as external evaluation information, such as reviews or announcements. She goes on to state that the analyst must identify themes and purposes, spot crucial terms, and watch for summary statements to determine the overall topic.⁸⁷ Bellardo also provides steps for the subject analysis process. She states that the author's objective is best grasped by a quick scan over the whole document, accompanied by an examination of certain key parts: title, abstract, introduction, illustrations, diagrams, tables, captions, conclusions, words that have been highlighted, and opening phrases of chapters, sections, and paragraphs.⁸⁸ Hutchins notes some of the structural features indexers must pay attention to in order to form an idea of aboutness: occurrence of key words and phrases, structural guides, summaries, abstracts, and chapter headings.⁸⁹

One might assume that cataloging textbooks would provide some answers. In her general cataloging text, Chan states, "The most reliable and certain way to determine the subject content is to read or examine the work in detail. Since this is not always practical for reasons of cost, catalogers usually have to use other means." Then, like so many others, she furnishes a list of bibliographic features to examine rather than providing an explanation of how to determine aboutness. Chan lists: title, table of contents, preface or introduction, indexes, chapter headings,

⁸⁶ Melvil Dewey, *Dewey Decimal Classification and Relative Index*, Ed. 22 (Dublin, Ohio: OCLC, 2003), xli-xlii.

⁸⁷ Reynolds, "In Theory There is No Solution," 231-232.

⁸⁸ Trudi Bellardo, *Subject Indexing: An Introductory Guide* (Washington, DC: SLA, 1991), 31-32.

⁸⁹ W. J. Hutchins, *Languages of Indexing and Classification* (Herts, England: Peter Peregrinus, 1975), sections 7.3-7.4.6.

abstracts, and jackets, as features to examine. She also states that main and subsidiary subjects should be considered, as should author's point of view, time and place.⁹⁰ Taylor's textbook, *Wynar's Introduction to Cataloging and Classification*, describes some considerations when determining aboutness such as difficulties related to exhaustivity, issues of summarization versus depth indexing, cultural influences, individual views and knowledge of the world, and issues of judgment.⁹¹ In this text, she does not address how the process is conducted, but instead points to four other sources of information: her *Organization of Information*, the ISO standard on determining the subjects of documents, Wilson's *Two Kinds of Power*, and *Subject Analysis* by Langridge.⁹² Curley and Varlejs's textbook, *Akers' Simple Library Cataloging*, tells the cataloger to read the title page, look at the table of contents, introduction or preface, and "dip into the book itself in several places." They state, "This scrutiny will show what the book is about and what the author's purpose was in writing it." It then moves directly to the translation step.⁹³ Olson and Boll list title, table of contents, introduction, index, section headings, bibliographic references, publisher's blurb, and illustrations as bibliographic features to consider.⁹⁴ Some textbooks do not address the issue at all. For example, Saye's *Manheimer's Cataloging and Classification* does not tackle the conceptual analysis process; but then again,

⁹⁰ Lois Mai Chan, *Cataloging and Classification: An Introduction* (New York: McGraw-Hill, 1994), 166.

⁹¹ Arlene G. Taylor, *Wynar's Introduction to Cataloging and Classification*. Rev. 9th ed. (Westport, Conn.: Libraries Unlimited, 2004), 275-276.

⁹² Arlene G. Taylor, *The Organization of Information*, 2nd ed. (Westport, Conn.: Libraries Unlimited, 2004); International Organization for Standardization, *ISO 5963-1985: Documentation—Methods for examining documents, determining their subjects, and selecting indexing terms* (Geneva: ISO, 1985); Wilson, *Two Kinds of Power: An Essay on Bibliographic Control*; Langridge, *Subject Analysis: Principles and Procedures*.

⁹³ Arthur Curley and Jana Varlejs, *Akers' Simple Library Cataloging* (Metuchen, N.J.: Scarecrow Press, 1984), 122-123.

⁹⁴ Hope A. Olson and John J. Boll, *Subject Analysis in Online Catalogs* (Englewood, Colo.: Libraries Unlimited, 2001), 89.

that is not the intended purpose of the book. He focuses instead on providing exercises to illustrate what is learned in the cataloging classroom; it is not meant to be a standalone text.⁹⁵

A recent dissertation, *Subject Determination during the Cataloging Process* by Šauperl, proclaims in its title to examine the subject determination process. That appears, at least, to have been the intent of the author when the research study was designed.⁹⁶ This intention, however, seems to have been thwarted by the study's participants. Instead of gaining insight into the subject determination process, Šauperl observed subject indication activities. Instead of witnessing thoughtful examinations of aboutness, she observed catalogers hurrying to find workable subject headings for the documents, relying heavily on catalog records for similar items. The analysis and translation steps were not conducted separately, nor did theory significantly inform any of the processes observed.⁹⁷ In a preliminary study, Šauperl and Saye observed five stages of subject cataloging: identifying the topic, identifying the author's intent, inferring possible uses, relating the topic to the existing collection, and relating the topic to indexing languages.⁹⁸ The first three stages, those related to the conceptual analysis, did not appear quite as regularly in the final study. From the narrative accounts of the twelve observations Šauperl made in her dissertation research, it appears that only two or three of the catalogers considered the possible uses of the document or identified the author's intent.⁹⁹ The focus instead was on the final two stages. Šauperl found that the catalogers primarily relied on

⁹⁵ Jerry D. Saye, *Manheimer's Cataloging and Classification* (New York: Marcel Dekker, 2000), xi.

⁹⁶ Alenka Šauperl, *Subject Determination during the Cataloging Process* (Lanham, Md.: Scarecrow, 2002), 1-3.

⁹⁷ *Ibid.*, 122-129.

⁹⁸ Alenka Šauperl and Jerry D. Saye, "Subject Determination During the Cataloging Process: An Intensive Study of Five Catalogers," in *Proceedings of the 9th ASIS SIG/CR Classification Research Workshop, October 25, 1998, Pittsburgh, Pennsylvania*, ed. by Elin K. Jacob (Silver Spring, Md.: ASIS, 1998), 124.

⁹⁹ Šauperl, *Subject Determination during the Cataloging Process*, 11.

their local catalogs, on some remote access catalogs such as the Library of Congress's online catalog, and on bibliographic utilities such as OCLC to find similar items to those in hand. It appears from the text that there were no full, detailed, structured conceptual analyses conducted by the participants. Instead, there were some reviews of the item's prefatory materials, followed by keyword selection and keyword searching in the catalog. The participants' processes focused on finding quick answers from examples of previous practice, instead of intellectual analyses of the items. Although she did not find much insight into how aboutness is determined, Šauperl provides a great deal of insight into how today's subject cataloging practice is conducted.¹⁰⁰

Hickey provides a comprehensive overview of subject analysis in the United States from 1876 to 1976. She examines problems and patterns in subject cataloging and discusses both classification and subject heading systems. She notes that in the United States, subject analysis has never gained the respect that it has been accorded in Europe. She also points out that subject cataloging often contains aspects not directly related to aboutness, such as form, level, geographic coverage, time factors, and associations. It is her view that there are no clear principles governing subject analysis in the United States, and that instead librarians simply rely on the tools provided to accomplish the work, unable to state with any assurance the basis for the selection of subject headings or classificatory symbols.¹⁰¹ This view is supported by Šauperl's examination of cataloging processes written 24 years later.¹⁰²

Though many of the above studies provide little insight into methods of conceptual analysis, there are some attempts to provide guidance and instruction in the process. The

¹⁰⁰ Ibid., 117-123.

¹⁰¹ Hickey, "Subject Analysis: An Interpretative Survey," 288.

¹⁰² Šauperl, *Subject Determination during the Cataloging Process*, 122-129.

following sections examine four attempts to provide structured approaches to conceptual analysis. Three are theoretically based; one is based on practical application.

2.1.1 Faceted Approaches

In LIS literature, the seminal works on classification theory and facet analysis come primarily from Ranganathan, the father of analytico-synthetic classification. His theories of classification, specifically facet analysis based on five fundamental categories, have been very influential, as has been similar work by the Classification Research Group (CRG). The fundamental categories, Personality, Matter, Energy, Space, and Time (together referred to as PMEST), are used to analyze a topic into its component parts.¹⁰³ The fundamental categories, presumably influenced by Aristotle's ten categories of being,¹⁰⁴ are, by nature of being categories, extremely broad in order to allow for their widest application. Ranganathan is acknowledged as the first to fully understand the use of a set of categories for the purposes of bibliographic control.¹⁰⁵ The use of categories provides an overall structure for the analysis of topics for inclusion in a classification or indexing system. Each subject's facets are exemplars of the fundamental categories that have been tailored to a particular knowledge domain.

Others, primarily the Classification Research Group, have found fault with the PMEST formula. In the 1950s, the CRG, while embracing much of his work, rejected Ranganathan's contention that there were only five fundamental categories. They saw the need for a more complex, varying facet structure. Their facet formula is represented by: things (or entities) and

¹⁰³ Ranganathan, *Prolegomena to Library Classification*, 339-341.

¹⁰⁴ Aristotle, *Categories*, Project Gutenberg, November 2000, <http://www.gutenberg.org/dirs/etext00/arist10.txt> (13 December 2005).

¹⁰⁵ Langridge, *Subject Analysis*, 39.

their kinds–parts–materials–properties–processes–operations–agents–place–time. Sometimes, a few other categories such as, patients–products–by-products–agent or language–viewpoint–form were used by some analysts.¹⁰⁶ Langridge points out that these categories, which have greater validity in technological subjects than in abstract subjects, have proven useful in providing subject access, but acknowledges that these categories are not as dissimilar to Ranganathan's categories as some CRG members might think.¹⁰⁷ Ranganathan's approach also allows for greater complexity than is often assumed at first. Realizing that not every topic could be represented by a rigid facet formula, Ranganathan developed means for the categories to be repeated in multiple levels and rounds. He also recognized the relationships among subjects through the use of phase relations. So, while he stopped at five fundamental categories, the combinations of the categories are vast and their applicability is wide.

Although Ranganathan's focus is on the analysis of subjects to be included in the development of a theoretically sound classification scheme, his ideas are equally applicable to other activities related to subject access. Facet analysis and the use of fundamental categories, while typically thought of as tools for developing classification schemes or controlled vocabularies,¹⁰⁸ have also been proposed as a system for analyzing anything, including

¹⁰⁶ Classification Research Group, "The Need for a Faceted Classification as the Basis of All Methods of Information Retrieval," in *Theory of Subject Analysis: A Sourcebook*, ed. by Lois Mai Chan, Phyllis A. Richmond, and Elaine Svenonius (Littleton, Colo.: Libraries Unlimited, 1985), 164-5; Michael J. Ramsden, "A New Life for Bliss," *Australian Academic and Research Libraries* 9, no. 4 (1978): 211-212; Sukhdev Singh, "Potentialities, Limitations, and the Future of Colon Classification," *Herald of Library Science* 38, no. 3/4 (1999): 187; Vanda Broughton, "Faceted Classification as a Basis for Knowledge Organization in a Digital Environment: the Bliss Bibliographic Classification as a Model for Vocabulary Management and the Creation of Multi-Dimensional Knowledge Structures," *The New Review of Hypermedia and Multimedia* 7 (2001): 79; T.W. Calless, "Subject Analysis Matrices for Classification with UDC," in *Proceedings of the First Seminar on UDC in a Mechanized Retrieval System, conducted by R.R. Freeman and Pauline Cochrane, Copenhagen, 2-6 September 1968*, ed. by R. Molgaard-Hansen and Malcolm Rigby (Copenhagen: Danish Documentation Center, 1969), 2-4.

¹⁰⁷ Langridge, *Subject Analysis*, 39.

¹⁰⁸ Louise F. Spiteri, "The Use of Facet Analysis in Information Retrieval Thesauri: An Examination of Selected Guidelines for Thesaurus Construction," *Cataloging & Classification Quarterly* 25, no. 1 (1997): 23.

searchers' queries and the contents of documents. Facet analysis can be seen not only as a model for analyzing information already possessed, but also as a model for obtaining information.¹⁰⁹ Iyer recognizes that Ranganathan's analytico-synthetic approach to classification involves the process of breaking down subjects into pre-defined facets representing the fundamental categories, and sees the possibilities of using this approach to structure users' search queries, a view that is shared by a few others.¹¹⁰

Some researchers, including this one, see great potential for using facet analysis in the determination of aboutness.¹¹¹ Barite describes diverse historical notions of categories; he notes that categories are tools to discover certain regularities of the world. He states that within the realm of classification, categories are "relevant as instruments of analysis and organization of objects, phenomena, and knowledge."¹¹² He looks at their usefulness in the design of indexing or classification systems, modification or specification of classification tables, and evaluation and analysis of indexing or classification systems.¹¹³ He also notes their potential use in analyzing individual works. What makes facet analysis successful in the context of classification or

¹⁰⁹ Brian Harris, "Faceting," *T.A. Informatics*, no. 2 (1976): 47.

¹¹⁰ Hemalata Iyer, "Online Searching: Use of Classificatory Structures," in *Tools for Knowledge Organization and the Human Interface, Vol. 2, Advances in Knowledge Organization, Proceedings from the 1st International ISKO Conference, Darmstadt, 14-17 August 1990*, ed. by Robert Fugmann (Frankfurt/Main: Indeks Verlag, 1991), 159; Hemalata Iyer, "Subject Representation and Entropy," *International Classification* 19, no. 1 (1992): 18; D.J. Foskett, "Ranganathan and User-Friendliness," *Libri* 42, no. 3 (1992): 230; I.C. McIlwaine and Vanda Broughton, "Guest Editorial: The Classification Research Group—Then and Now," *Knowledge Organization* 27, no. 4 (2000): 199.

¹¹¹ A. Neelameghan, "S.R. Ranganathan's General Theory of Knowledge Classification in Designing, Indexing, and Retrieving from Specialised Databases," *Library Science with a Slant to Documentation and Information Studies* 34, no. 1 (1997): 9; Mario Guido Barite, "The Notion of 'Category': Its Implications in Subject Analysis and in the Construction and Evaluation of Indexing Languages," *Knowledge Organization* 27, no. 1/2 (2000): 4-5; Fred Leise, "Using Faceted Classification to Assist Indexing," *Key Words* 9, no. 6 (2001): 179.

¹¹² Barite, "The Notion of Category," 4-5.

¹¹³ *Ibid.*, 6.

indexing system creation, or perhaps in query construction and conceptual analysis, is its “ability to separate out the various elements of a compound subject.”¹¹⁴

In his process, Ranganathan states that analyzing the facets of the subject(s) in a document, a process that takes place on the idea plane, must be conducted before moving to the verbal and notation planes. In other words, the determination of aboutness must occur separately from the translation of the aboutness into notation or subject headings.¹¹⁵ But in his seminal works, *Prolegomena to Library Classification* and *Elements of Classification*, the processes are intertwined. Ranganathan describes how a document’s title is to be transformed into an aboutness statement representing all of the concepts that are present in the document. The process starts by adding missing information to the title, standardizing the language, and rearranging elements to more resemble the PMEST formula. Personality, matter/material, energy, space, and time are used to structure this transformation, but the way in which the actual concepts are detected and determined is apparently left up to the individual cataloger or indexer.¹¹⁶ Ranganathan does not state how to recognize the subjects in a document. Gopinath tries to clarify some of Ranganathan’s processes, but fails to illuminate how one identifies the basic subject, or discipline, or the isolates to be placed in the PMEST categories.¹¹⁷ Despite the lack of explication of the conceptual analysis process, this researcher still sees potential in the use of fundamental categories as tools to analyze aboutness.

¹¹⁴ Foskett, “Ranganathan and User-Friendliness,” 232.

¹¹⁵ Neelameghan, “S.R. Ranganathan’s General Theory of Knowledge Classification,” 9..

¹¹⁶ Ranganathan, *Prolegomena to Library Classification*, 439-449; Ranganathan, *Elements of Library Classification*, 103-135.

¹¹⁷ M.A. Gopinath, “Postulational Approach to Analytico-Synthetic Classification,” *Library Science with a Slant to Documentation* 22, no. 4 (1985): 207-210, 224-228.

Others scholars have explored the use of categories and facets in indexing and classification processes. Iivonen and Kivimäki's work on concept indexing looks at the types of concepts selected to describe a document's aboutness.¹¹⁸ Their concept categories of entities, properties, activities, and dimensions reflect nothing more than Ranganathan's basic PMEST formula. It is unsurprising that in their study, the most concrete category—entities—was the one most frequently found in indexing, with activities, properties and dimensions appearing far less often.¹¹⁹ This supports the work of Kaiser who believed that all subjects should be broken down into two major categories: concretes, which are entities or nouns, and processes, which are actions or verbs.¹²⁰

In addition to influencing the development of faceted approaches to bibliographic classification, Ranganathan's ideas have also been used to develop other types of systems. Ranganathan's PMEST formula is the basis for Bhattacharyya's Postulate-based Permuted Subject Indexing System (POPSI), which uses the categories of basic subject or discipline, entity, action, and property, as well as modifiers such as place, environment, time, and form to analyze subjects for the subject indexing process.¹²¹ Gopinath expands on the basic PMEST-based facet formula to provide a checklist of component ideas that may make a faceted approach to conceptual analysis more complete. The checklist includes: field of study, theory/systems, extra-normal environment, special restrictions, objects of study, qualifiers, steps, attributes,

¹¹⁸ Iivonen and Kivimäki, "Common Entities and Missing Properties," 91-92.

¹¹⁹ Ibid., 94-98.

¹²⁰ Robert D. Rodríguez, "Kaiser's Systematic Indexing," *Library Resources & Technical Services* 28, no. 2 (1984): 163; Langridge, *Subject Analysis*, 39

¹²¹ Akhilesh Mandal, "A Comparative Study of POPSI Table with Fundamental Categories and Phase Relations in Colon Classification," *Herald of Library Science* 34, no. 1/2 (1995): 56; A.R. Sethi and S. Shyamala, "Classaurus, Classification, and the Computer: An Exercise in the Application of POPSI Method in Subject Indexing," *Library Herald* 20, no. 2-4 (1981-1982): 113; Singh, "Potentialities, Limitations, and the Future," 188.

methods, agents, and instruments.¹²² These checklist items may also be helpful in the aboutness determination process.

While Langridge, Ranganathan, and others feel categories and disciplines are important starting points in addressing subjects, not everyone agrees. Grolier states that the disciplinary-based structure of classifications and the use of categories may in fact be more harmful than helpful. He points out the ancient origins of these concepts as an indication that they may be past their prime.¹²³ All modern classification schemes, however, are still based on academic disciplines, and their custodians do not seem to agree with Grolier. There does not appear to be movement toward developing other foundations for subject access systems, and no one has proposed a feasible idea as to what should replace disciplines in that role. Albrechtsen discusses the use of discipline-based facets for each knowledge domain, though she sees the approach as open to criticism.¹²⁴ Fugmann, too, considers the use of basic, facet-like categories, established for each knowledge domain, to be a possible solution to the lack of indexing predictability. By requiring indexers to use a set of categories in determining the key concepts to index, he sees the potential for improving users' information gathering.¹²⁵

¹²² M.A. Gopinath, "Checklist of Component Ideas for Classification by Colon Classification," *Library Science with a Slant to Documentation* 22, no. 1 (1985): 15-16; M.A. Gopinath, "Speciators to Facets in Colon Classification," *Library Science with a Slant to Documentation* 22, no. 1 (1985): 1-13.

¹²³ Eric de Grolier, "Some Notes on the Question of a So-Called Unified Classification," in *Tools for Knowledge Organization and the Human Interface, Vol. 2, Advances in Knowledge Organization, Proceedings from the 1st International ISKO Conference, Darmstadt, 14-17 August 1990*, ed. by Robert Fugmann (Frankfurt/Main: Indeks Verlag, 1991), 89, 96.

¹²⁴ Hanne Albrechtsen, "Subject Analysis and Indexing: From Automated Indexing to Domain Analysis," *The Indexer* 18, no. 4 (1993):223.

¹²⁵ Robert Fugmann, "Unused Possibilities in Indexing and Classification," in *Tools for Knowledge Organization and the Human Interface, Vol. 1, Advances in Knowledge Organization, Proceedings from the 1st International ISKO Conference, Darmstadt, 14-17 August 1990*, ed. by Robert Fugmann (Frankfurt/Main: Indeks Verlag, 1991), 66.

Through the examination of the conceptual analysis processes conducted in this study, the researcher hopes the importance of facet analysis and categories in the conceptual analysis process will be demonstrated by the data. In the spirit of reflexivity, it must be pointed out that a belief in and desire to support Ranganathan's ideas is one of the chief biases of the researcher. Despite this bias, *all* of the concepts mentioned in the literature review are used as lenses with which to view the data generated in this study.

2.1.2 Wilson's Approaches

In 1968, Wilson wrote a classic essay on the nature of bibliographic control. It is one of the few works that attempts to describe how the conceptual analysis process is performed. In his essay, he describes four conceptual analysis methods. These are:

- Identifying the author's intentions in writing the work;¹²⁶
- Weighing the relative importance or prominence of elements in the work;¹²⁷
- Tallying references to various elements—an empirical approach;¹²⁸ and
- Selecting the themes or elements that hold the work together as a whole, i.e., what has been selected or included and what has been rejected or excluded.¹²⁹

2.1.2.1 The Purposive Method¹³⁰

The purposive method is a consideration of the author's intent or predominant purpose in creating the document. It is an attempt to examine what the author is trying to do, describe, report, prove, show, or explain. The process entails examining the author's aim, purpose, or

¹²⁶ Wilson, *Two Kinds of Power: An Essay on Bibliographic Control*, 78-81.

¹²⁷ *Ibid.*, 81-83.

¹²⁸ *Ibid.*, 83-85.

¹²⁹ *Ibid.*, 85-89.

¹³⁰ The name of each method is provided by Taylor in *The Organization of Information*, 244-245.

objective. This information may be shared directly by the author in the preface or introduction, or it may need to be deciphered by the analyst. Both situations, however, can be problematic. The author might not adequately describe, might misrepresent, or might not be aware of his or her purpose in a particular writing, or the author may aim at nothing in particular. It may also be difficult to distinguish between the author's primary aims and his or her secondary, supporting objectives.¹³¹

2.1.2.2 Figure-Ground Method¹³²

In Wilson's second method, the analyst determines which are the central figures and which are background figures in the large "cast of characters" found in the entire work. Wilson acknowledges that not everything represented in a work is equal in position or space, and most of what appears is background to a central theme or idea. It is the analyst who must determine what stands out, or what has been emphasized.¹³³ Difficulties arise in the application of this method because catalogers and indexers have extremely limited amounts of time to examine documents, and these examinations may not be of the entire document as in case of Cataloging in Publication (CIP) situations. Another concern that might be raised is that different things will stand out to different analysts; this, however, will occur no matter the approach that is used to determine aboutness.

¹³¹ Wilson, *Two Kinds of Power: An Essay on Bibliographic Control*, 78-81.

¹³² Taylor, *The Organization of Information*, 245.

¹³³ Wilson, *Two Kinds of Power: An Essay on Bibliographic Control*, 81-83.

2.1.2.3 The Objective Method¹³⁴

Wilson's third method is an objective approach to conceptual analysis. It involves monitoring the frequency of references to themes, items, ideas, or objects in the work. The item or items with the most references might then be the topic(s) of the document. This method, too, has drawbacks. The concept mentioned most often might only be a background item or a setting, and central ideas might not be articulated fully in the writing. This method requires skill in grouping ideas, determining indirect references, determining whole-part relationships, and determining member-group relationships in order to be successful.¹³⁵

2.1.2.4 Appealing to Rules of Selection and Rejection¹³⁶

Wilson's fourth method requires an analyst to find an organizing principle for the writing. The analyst must determine what gives the writing unity and completeness, and what is considered unnecessary. This method, Wilson states, is more a piece of artistry on the part of the analyst, rather than on the part of the author.¹³⁷ It also requires a fair amount of subject expertise for the analyst to determine what has been rejected for inclusion in the work, and what are the unifying principles among the ideas presented.

2.1.2.5 Wilson's Conclusions

Wilson states that each of these four methods alone is inadequate for the determination of the aboutness of a document. He would not be surprised if the same item had four different sets of results if all four methods were being used by the same or by different analysts. Taylor concurs,

¹³⁴ Taylor, *The Organization of Information*, 245.

¹³⁵ Wilson, *Two Kinds of Power: An Essay on Bibliographic Control*, 83-85.

¹³⁶ Taylor, *The Organization of Information*, 245.

¹³⁷ Wilson, *Two Kinds of Power: An Essay on Bibliographic Control*, 85-89.

stating, “A single person might arrive at three or four different subjects using the different methods, and several persons might arrive at different results using the same method.”¹³⁸ Wilson states that each approach is *a* method, not *the* method, to analyze aboutness, acknowledging that how people actually perform conceptual analysis is unknown.

Wilson believes that some of the difficulty in determining aboutness stems from discussions of *the* subject of a document. He states that problems may result from the innocent assumption that there is just one answer to the question, “What is it about?” There are many different ways to describe the aboutness of a document, and the search for a single, precise statement of aboutness is futile.¹³⁹ Wilson goes on to state that he believes that the concept of subject is ultimately impossible to define.¹⁴⁰ Metcalfe agrees with Wilson, stating that the term *subject* is so filled with ambiguity that it is useless in any technical sense, though it is common in everyday language.¹⁴¹

2.1.3 Langridge’s Approach

Another description of the conceptual analysis process comes from Langridge. He defines the subject analysis process as determining the significant characteristics of a document with complete explicitness.¹⁴² He feels the phrase *subject analysis* is not entirely satisfactory, but his suggested terminology, *content analysis*, is primarily used to identify a text-based research

¹³⁸ Taylor, *The Organization of Information*, 245.

¹³⁹ Wilson, *Two Kinds of Power: An Essay on Bibliographic Control*, 70-71.

¹⁴⁰ *Ibid.*, 88-90.

¹⁴¹ John Metcalfe, “When is a Subject Not a Subject?” in *Towards a Theory of Librarianship*, ed. by C.H. Rawski (New York: Scarecrow Press, 1973).

¹⁴² Langridge, *Subject Analysis*, 5, 9.

methodology. And the phrase subject analysis is already well established.¹⁴³ In his view of the subject analysis process, he feels it is important to address two distinct questions:

- What is it?
- What is it about?

The first of his questions is answered in terms of the various forms of knowledge which, according to Langridge, include: philosophy, religion, human/behavioral or social science, social practice, moral knowledge, natural science, technology, art, criticism, personal experience, history, and prolegomena, e.g., logic, mathematics, writing, language, and reading.¹⁴⁴ The second question is answered in terms of topics or phenomena. It reflects what we specifically perceive to exist in the world.¹⁴⁵ For example, there might be a book entitled *The Philosophy of Subject Analysis*. The first of Langridge's questions is answered with *philosophy* and the second question with *subject analysis*. The document is in the form of a philosophical treatise about a specific phenomenon: subject analysis. Langridge states that in all cases, both questions have definite answers, but sometimes a third, unasked, question causes some confusion. This question—What is it for?—may have many answers. In the example above, the answer to the third question may be, “It is a book for librarians and other information professionals to use to understand the basic concepts, purpose, and importance of subject analysis.” This leads to the inclusion of library science in the aboutness equation as the field of interest or discipline and/or librarians and information professionals as the audience.¹⁴⁶

¹⁴³ Ibid., 5.

¹⁴⁴ Ibid., 24.

¹⁴⁵ Ibid., 9, 31.

¹⁴⁶ Ibid., 9.

Langridge and his colleague Brown both stress the importance of determining various properties of the text in the subject analysis process.¹⁴⁷ These properties include form of knowledge, topics, disciplines, categories, form of thought, and form of writing. Langridge offers the following as steps in the conceptual analysis process:¹⁴⁸

- **Examining the text:**
 - Scan the title, subtitle, author information, table of contents, and chapter headings;
 - Read the introduction and book jacket;
 - Sample the text, if necessary, or check book reviews; and
 - Determine if the work is homogenous or a composite work.

- **Analyzing each unit:**
 - Determine the fundamental form of knowledge;
 - Determine the discipline;
 - Determine the topic;
 - Determine the nature of the thought; and
 - Determine the nature of the text.¹⁴⁹

- **Creating a Summary:**
 - Write a summary of the findings in natural language expressing the aboutness of the item.¹⁵⁰

2.1.4 Taylor's Approach

Most attempts to describe the subject analysis process begin by listing the features of a document that can be used to determine aboutness. One of the practical, structured approaches to conceptual analysis comes from Taylor, and is based on *ISO-5963: Documentation - Methods for*

¹⁴⁷ Langridge, *Subject Analysis*, 31-37; Brown, *An Introduction to Subject Indexing*, frames 91-93, 97.

¹⁴⁸ Langridge, *Subject Analysis*, 136.

¹⁴⁹ Ibid., 55-57; Langridge's *form of thought* includes: point of view, the type of writing (whether they are instructive, persuasive, or imaginative), methodology, intellectual level, and audience. His *nature of the text* includes: identifying the medium, the bibliographic type, the form of presentation, the level of aggregation, and other bibliographic forms such as outline, digest, programmed instruction, bibliography, reference work, concordance, index, etc.

¹⁵⁰ Langridge considers the use of natural language in describing aboutness to be key in the process.

*examining documents, determining their subjects, and selecting indexing terms.*¹⁵¹ She provides a multiple-step method of examining various types of information packages, including books, articles, and Web sites. While this approach does not describe how to determine which concepts are representative of the subjects of a document, Taylor does provide a structured approach to examining the key bibliographic features of a document.¹⁵² She states the following features should be considered:

- **Title and subtitle:** “A title can be helpful in giving an immediate impression of the topic of a document, but a title can also be misleading.”¹⁵³
- **Table of contents:** “A list of contents can help clarify the topic and identify subtopics. A list of contents can be especially helpful for items that are collections of articles, papers, etc., by different authors.”¹⁵⁴
- **Introduction or equivalent:** “An introduction often is an aid in determining the author’s plan or objective and may serve to indicate an author’s point of view.”¹⁵⁵
- **Index terms, words, or phrases that are printed in typeface different from the rest, hyperlinks, abstract, etc.:** “These elements provide confirmation or contradiction of impressions gained from examination of the title, table of contents, introduction, etc. A back-of-the-book index can show what topics are given the most attention by showing the number of pages devoted to each.”¹⁵⁶
- **Illustrations, diagrams, tables, captions:** “Illustrations and their captions are particularly important in assessing the subjects in fields such as art, where, in many cases, illustrations make up the vast majority of the content and

¹⁵¹ International Organization for Standardization, *ISO 5963-1985: Documentation - Methods for examining documents, determining their subjects, and selecting indexing terms* (Geneva: International Organization for Standardization, 1985), 2.

¹⁵² Taylor, *The Organization of Information*, 247-255.

¹⁵³ *Ibid.*, 247.

¹⁵⁴ *Ibid.*, 247-248.

¹⁵⁵ *Ibid.*, 248.

¹⁵⁶ *Ibid.*, 248.

therefore must be examined in order to determine aboutness. The captions for illustrations are often quite descriptive of subject content.”¹⁵⁷

In addition, her approach goes beyond what most other practical methods offer. What makes Taylor’s approach different is that she provides a list of categories that should be considered when analyzing a document. She recommends looking for the following types of information during the analysis of the document:

- **Topics:** “Most people think of topical terms when asked to identify the subject for which they seek information. Topics can be concrete or abstract concepts. A topic represents a principle object of attention in a text or a non-textual composition, or it can represent a theme running through an information package.”¹⁵⁸
- **Names:** “In the process of determining what a document is about, it may be found that the topic, or one aspect of the topic, is a person, a corporate body, a geographic area, or some other named entity.”¹⁵⁹ This includes: persons, corporate bodies, geographic areas, and other named entities.
- **Time periods:** “The time period can be an important aspect of the subject content of information packages. Time periods limit the coverage of the topic and therefore dictate content in subtle ways.”¹⁶⁰
- **Form:** “*Form* is a concept that has been associated with subject analysis from the inception of the idea that books could be entered in catalogs and placed on shelves according to the category they belonged to. Early categories included such forms as encyclopedias, biographies, and histories, as well as subjects such as chemistry and religion.”¹⁶¹

In addition, Taylor offers a step-by-step workform, based on the structure and concepts outlined above, to assist the subject analyst in determining aboutness.¹⁶²

¹⁵⁷ Ibid., 248.

¹⁵⁸ Ibid., 252.

¹⁵⁹ Ibid., 252-353.

¹⁶⁰ Ibid., 253-254,

¹⁶¹ Ibid., 254-255.

¹⁶² Ibid., 347.

2.2 THE NATURE OF ABOUTNESS

The processes involved in the conceptual analysis of documents are rarely the focus of scholarly library and information science literature. However, literature discussing the nature of aboutness—what it is, its characteristics, and how it is defined—is somewhat more prevalent, though still scant. While discussions of subject have gone on for centuries among philosophers, literary critics, and others, the term aboutness is relatively new; it originated in the late 1960s, appearing first in the literature of indexing and information retrieval studies. Discussions of aboutness and subject are interwoven in this section; the concepts are intractably intertwined since the LIS profession tends to treat these concepts as synonymous.

2.2.1 What is Aboutness?

A number of authors offer their own definitions of subject or aboutness. The Classification Research Group states that a subject is “a compound, more or less complex, of simpler concepts, not a simple concept which can be neatly tucked away in a single pigeon-hole in the vast cabinet of knowledge.”¹⁶³ Cutter describes subject as the theme or topic of a resource, whether stated or not.¹⁶⁴ Ranganathan describes subject as “an organized or systematized body of ideas, whose extension and intension are likely to fall coherently within the field of interest and comfortably within the intellectual competence and the field of inevitable specialization of a normal

¹⁶³ Classification Research Group, “The Need for a Faceted Classification,” 160.

¹⁶⁴ Cutter, *Rules for a Dictionary Catalog*, 23.

person.”¹⁶⁵ Svenonius states that subject “is defined analytically using near synonyms, like theme, topic, thought content, or overall idea. Analytic definitions, however, often lead nowhere. An exception is the definition of subject through the related concept of aboutness.”¹⁶⁶ Lancaster, very practically, states the verb phrase “is about [is] merely a synonym for covers.” He recognizes that this is not a very precise definition.

Nevertheless, they are expressions that seem acceptable to most people and to be understood by them. It is not my intention to enter into a philosophical discussion on the meaning of *about* or *aboutness*. A number of authors have already done so. In doing so, they have failed to clarify the situation, at least as far as the task of subject indexing is concerned.¹⁶⁷

He goes on to state, “Conceptual analysis, then, means nothing more than identifying the topics discussed or otherwise represented in the document.”¹⁶⁸ He acknowledges this definition may not be precise enough for some, but states, “If one must reach agreement on the precise definition of terms before pursuing any task, one is unlikely to accomplish much—in indexing or any other activity.”¹⁶⁹

Miksa states that it is common to think of subjects in terms of the words used to describe them,¹⁷⁰ and that “they are, for all practical purposes, named intellections that have their own separate identities.... They are the thoughts of people expressed in some way.”¹⁷¹ Wellisch states that a topic is “a concept or theme expressed in or derived from a document. Although the term

¹⁶⁵ Ranganathan, *Prolegomena to Library Classification*, 82.

¹⁶⁶ Svenonius, *The Intellectual Foundation of Information Organization*, 46.

¹⁶⁷ Lancaster, *Indexing and Abstracting in Theory and Practice*, 13.

¹⁶⁸ *Ibid.*, 15.

¹⁶⁹ *Ibid.*

¹⁷⁰ Francis Miksa, *The Subject in the Dictionary Catalog from Cutter to the Present* (Chicago, Ill.: ALA, 1983), 7.

¹⁷¹ *Ibid.*, 57.

subject is better known and more often used than topic, and is virtually synonymous with it, its meaning in traditional library practice is much broader than that of topic.”¹⁷² Todd reviews various other definitions of subject described over the years in library and information science literature. He mentions, among others: Kaiser, who views subject as “things in general and the conditions attached to them” (concretes and process); Coates, who describes subject as an abstraction of the overall idea embodied in the content; Vickery, who views subject as themes on which books, articles, or parts of these are written or a complex aggregate of specific aspects; and Borko and Bernier, who refer to subject as the foci of a work and the central themes toward which the attention and efforts of the author have been directed.¹⁷³

One of the most influential articles on the topic of aboutness is from Fairthorne’s subject analysis literature review in the 1969 *Annual Review of Information Science and Technology*. Fairthorne is generally credited with coining the term aboutness as an attempt to avoid dealing with the philosophical complexities associated with the term subject. What he only succeeded in doing, however, was to change the name of the concept, i.e., to provide a synonym for subject in library and information science literature. The complexities inherent in the concept subject quickly attached themselves to the new term, since no real distinction between the terms subject and aboutness is acknowledged in library and information science.¹⁷⁴

¹⁷² Hans H. Wellisch, *Indexing from A to Z* (New York: Wilson, 1991), xxiv.

¹⁷³ Todd, “Subject Access—What’s It All About?” 259-260; Todd, “Academic Indexing: What’s It All About?” 102.

¹⁷⁴ Robert A. Fairthorne, “Content Analysis, Specification, and Control,” chap. 3 in *Annual Review of Information Science and Technology*, Vol. 4, ed. by Carlos A. Cuadra and Ann W. Luke (Chicago, Ill.: Encyclopedia Britannica, 1969), 79.

2.2.2 Extensional and Intensional Aboutness

A number of authors have attempted to explore the basic nature of aboutness. Todd points out that without a consistent or clear explanation and understanding of what is sought in a document, inconsistency in subject cataloging is unsurprising.¹⁷⁵ In addition to coining the term aboutness, Fairthorne is also credited with making a distinction between *extensional aboutness* and *intensional aboutness*. Extensional aboutness addresses what he considers to be the inherent subject properties of the work; it is a relatively stable, recognizable aboutness. Intensional aboutness addresses subject properties that are associated with users, their requests, or the reasons for which the document has been acquired;¹⁷⁶ it is a meaning-based, changing, interpretive aboutness.

Todd also assumes that a document has a relatively permanent aboutness, and that indexers state what the document is about by formulating expressions that indicate the content. Without a notion of a static, “objective” aboutness, it is difficult to make decisions about the subject analysis process. Todd states that documents have an intrinsic aboutness that is independent of the temporary usage to which an individual might put one or more meanings.¹⁷⁷

In an analysis related to that of Fairthorne’s distinction between extensional and intensional aboutness, Beghtol distinguishes between the concepts of *aboutness* and *meaning*. She states that a document of any kind has a relatively permanent aboutness, but is also has a variable number of messages or meanings, each different according to the exact use made of the document by users. She points out that even though a document can have different meanings, the

¹⁷⁵ Todd, “Subject Access—What’s It All About?” 259-260; Todd, “Academic Indexing: What’s It All About?” 102.

¹⁷⁶ Fairthorne, “Content Analysis, Specification, and Control,” 79.

¹⁷⁷ Todd, “Academic Indexing: What’s It All About?” 102.

document itself is unchanging.¹⁷⁸ Cleveland and Cleveland also offer the notion that documents have two characteristics: “what the words *say* and what they *mean*.”¹⁷⁹ Boyce describes aboutness in terms of *topicality* and *informativeness*; topicality is based on a view of subject matter treated in documents as being self-evident, and informativeness is based on the subjective meaning ascribed by users.¹⁸⁰ Hutchins believes that a document has a *sense* that is independent of its author and its readers. As such, it attains an autonomous existence as part of objective knowledge. He feels that the sense can be discovered in a pure, abstract state, without the indexer reading too much into it.¹⁸¹

Others reject the concept of extensional aboutness, stating that the same document can have different meanings for the same reader at different times. Campbell doubts that there is an innate aboutness in documents waiting to be translated by the indexer.¹⁸² He points to Mai’s statement to make this point: “Knowledge Organization is a social construction. It is not a reflection or mirror of a [pre-existing] structure nor an objective description of reality.”¹⁸³ Campbell points out the subjectivity of determining aboutness in his discussion of queer theory and subject access tools. He uses literary examples to show how the lines between data and

¹⁷⁸ Beghtol, “Bibliographic Classification Theory and Text Linguistics,” 84-85.

¹⁷⁹ Cleveland and Cleveland, *Introduction to Indexing and Abstracting*, 98.

¹⁸⁰ Todd, “Academic Indexing: What’s It All About?” 102.

¹⁸¹ W.J. Hutchins, “On the Problem of ‘Aboutness’ in Document Analysis,” *Journal of Informatics* 1, no. 1 (1977): 18-19.

¹⁸² Grant Campbell, “Queer Theory and the Creation of Contextual Subject Access Tools for Gay and Lesbian Communities,” *Knowledge Organization* 27, no. 3 (2000): 123.

¹⁸³ Jens-Erik Mai, “A Postmodern Theory of Knowledge Organization,” in *Knowledge: Creation, Organization, and Use, Proceedings of the American Society for Information Science, Vol. 36. 62nd Annual Meeting, Washington, DC, October 31- November 5, 1999*, ed. by Larry Woods (Medford, NJ: Information Today, 1999), 552.

interpretation can blur when used in specific contexts.¹⁸⁴ Bertrand-Gastaldy et al. note that all reading is subjective and oriented to a specific purpose; this would also hold true for the reading, in a professional context, of the classifier or indexer who is trying to determine aboutness.¹⁸⁵ Svenonius, however, states, “The view that subject determination is wholly subjective is disturbing.” She goes on to mention an unpublished work by Fox and Norreault, which argues that:

Since there is a fair amount of agreement among people on how to use the word *about*, there must be common conventions governing its use. Further, to assume that perceptions of aboutness are subjective does not allow for mistakes, whereas mistakes can be made: to say that Hamlet is a treatise on thermodynamics is to be mistaken.¹⁸⁶

While a subjective, interpretivist viewpoint is valid and generally embraced by this researcher, especially in the context of a non-positivist epistemology, the work of subject analysis must continue to be done. Here a certain level of pragmatism must be incorporated into approaches to subject cataloging. Those arguing against the concept of extensional aboutness appear to be embracing an extreme view of relativism, one that is ultimately untenable for information organization. They reject the concept of extensional aboutness stating that documents can have different meanings for the same reader at different times. Their reasoning, however, does not negate the existence of extensional aboutness. Those embracing the distinction between intensional and extensional aboutness state clearly that multiple meanings are possible, and indeed very probable. They view these multiple meanings as the intensional aboutness (or

¹⁸⁴ Campbell, “Queer Theory,” 123-128.

¹⁸⁵ Suzanne Bertrand-Gastaldy et al., “Convergent Theories: Using a Multidisciplinary Approach to Explain Indexing Results,” in *Forging Partnerships in Information, Proceedings of the American Society for Information Science, Vol. 32, 58th Annual Meeting, Chicago, October 9-12, 1995*, ed. by Tom Kinney (Medford, NJ: Information Today, 1995), 56.

¹⁸⁶ Svenonius, *The Intellectual Foundation of Information Organization*, 46. Emphasis mine.

informativeness or what the words *mean*). They also believe, however, that an extensional aboutness (or topicality or what the words *say*) can also exist. This researcher accepts the distinction between the two, and uses the terms *aboutness* and *subject* to make that distinction. Thus, the researcher believes that the distinction between extensional and intensional aboutness—or between the terms aboutness and subject—is ultimately useful, important, and, contingent on further research, correct.

2.2.3 Text-based Approaches to Aboutness

Hutchins published another important view of aboutness in the 1970s. He approaches aboutness through a linguistic analysis of textual structures, an approach not uncommon when looking at the literature of aboutness. Many of the authors using text-based approaches cite the work of Van Dijk and Kintsch who investigate processes of text comprehension. Hutchins believes that an examination of textual structures is a strong foundation for the determination of aboutness.¹⁸⁷ Beghtol provides a most useful explanation of how textual-linguistic theories relate to the process of determining aboutness. She explains Van Dijk's theories of bottom-up and top-down cognitive processing of texts "to provide a descriptive model of aboutness analysis."¹⁸⁸ She states:

According to Van Dijk, our understanding of a document's aboutness results from our ability to reduce the information in text to manageable and therefore memorable portions ... we are able to produce other discourses, or parts of discourses, expressing this aboutness in summaries, titles, conclusions, or pronouncements in any form.

¹⁸⁷ W. J. Hutchins, "The Concept of 'Aboutness' in Subject Indexing," *Aslib Proceedings* 30, no. 5 (1978): 173; Hutchins, "On the Problem of 'Aboutness' in Document Analysis," 19.

¹⁸⁸ Beghtol, "Bibliographic Classification Theory and Text Linguistics," 89-90.

Beghtol describes the processes of text reduction and text comprehension as methods of controlled forgetting, based on Van Dijk's conceptual model, which contains five macro-rules governing the summarization process. These rules, a part of Van Dijk's theoretical framework describing the cognitive processes involved in understanding written discourse, include the Weak Deletion Rule, the Strong Deletion Rule, the Zero Rule, the Generalisation Rule, and the Construction Rule. These rules guide the reader in the manipulation of textual content, and determine which details may be eliminated, combined, generalized, or integrated into a larger picture of the overall content. The text, as it is manipulated, is reduced. This reduction process continues throughout the text until reaching the final level "at which no further cognitive propositional reductions can fruitfully be made." This level "is the topic of the text." It hierarchically organizes "all the detailed textual propositions in the most general macro-proposition that meaningfully expresses the aboutness of the whole text."¹⁸⁹

Other authors also point out the similarity between the determination of aboutness and processes related to textual analysis. Endres-Niggemeyer writes that conceptual analysis is comparable to translating or writing texts, solving arithmetic problems, or interpreting drawings. It is deriving, summarizing, or abstracting a new, much shorter text in the form of index terms or classification numbers from the original document. She states that the key to conceptual analysis is text comprehension and describes in detail a model based on Kintsch and Van Dijk's explanation that text comprehension is a cognitive reduction that synthesizes the propositions of a document into macro-propositions.¹⁹⁰

¹⁸⁹ Ibid., 90-91.

¹⁹⁰ Brigitte Endres-Niggemeyer, "Content Analysis—A Special Case of Text Comprehension," in *Information. Knowledge. Evolution, Proceedings from the forty-fourth FID Congress held in Helsinki, Finland, 28 August-1 September 1988*, ed. by Sinikka Koskiala and Ritva Launo (Amsterdam: FID, 1989): 103-104.

Farrow offers a cognitive process model, starting with the reasonable assumption that indexers comprehend text in essentially the same way as fluent readers, but with four modifications that are task-related. These include time restraints, the purpose of the analysis, production requirements to represent the document through indexing languages and/or abstracts, and the possible narrow range of text types and subject fields to which the indexer is exposed.¹⁹¹ He, too, uses Van Dijk and Kintsch's linguistic model of text processing and comprehension as the basis of his model of aboutness. He notes several textual cues used in skimming text: 1) long words; 2) uncommon words and words with unusual patterns; 3) deliberate visual effects (illustrations, tables, headings, etc.); 4) definitions appearing in the text;¹⁹² 5) word frequency; and 6) stock words and phrases indicating structural features.¹⁹³ These cues could be used in a textual structures-based conceptual analysis. Ultimately, he concludes that indexing is nothing more than a form of text reduction.¹⁹⁴

Svenonius illustrates a subject analysis model based on sentence grammar. This grammatical model is a foundation for summarization-based approaches to conceptual analysis. She states:

The grammatical subject of a sentence denotes what the sentence is about while its predicate comments on this. The sentence "Snow is white" has as its grammatical subject *snow*.... By extension, a collection of sentences about snow results in a document about snow. By further extension, many documents about snow result in a literature about snow. Snow, having associated with it a literature

¹⁹¹ John F. Farrow, "A Cognitive Process Model of Document Indexing," *Journal of Documentation* 47, no. 3 (1991): 151.

¹⁹² John F. Farrow, "All in the Mind: Concept Analysis in Indexing," *The Indexer* 19, no. 4 (1995): 245; also described in: Kevin P. Jones, "Towards A Theory of Indexing," *Journal of Documentation* 32, no. 2 (1976): 119.

¹⁹³ Farrow, "A Cognitive Process Model," 154-155.

¹⁹⁴ Farrow, "All in the Mind," 247.

or a systematized body of ideas, achieves the status of subject: it occupies a position in the bibliographic universe.¹⁹⁵

According to Coates, aboutness is determined through a process similar to text summarization. It is related to reducing the entire contents of a piece of literature to a single idea representing the subject. Coates does not, however, indicate how to do this.¹⁹⁶ Tibbo conducts a content analysis of abstracts, and describes the possibility of universal standards for abstracting. She points out that good abstracts are concise, informative summaries, focused on the essential content of a document,¹⁹⁷ which is not unlike an aboutness statement. Jones notes that word frequency and word position are important textual cues in determining aboutness. He found a strong correlation between words chosen to represent the content of an item and words that occur frequently in the text.¹⁹⁸

Some authors, however, do not view subject analysis simply as summarization or text reduction. Fairthorne states that a document is much more than just the sum of the things it mentions and the analyst could easily miss non-explicit ideas and notions. Wilson states that it is important to remember that subject descriptors are not always a précis of the aboutness of a document.¹⁹⁹ Subject headings and classification numbers assigned to a document are only selective components of a document's aboutness; some concepts cannot be described adequately, and some cannot be described at all using the available indexing languages. As such, descriptors

¹⁹⁵ Svenonius, *The Intellectual Foundation of Information Organization*, 47.

¹⁹⁶ E.J. Coates, *Subject Catalogues: Headings and Structures* (London: Library Association, 1960), 17.

¹⁹⁷ Helen R. Tibbo, "Abstracting Across the Disciplines: A Content Analysis of Abstracts from the Natural Sciences, the Social Sciences, and the Humanities with Implications for Abstracting Standards and Online Information Retrieval," *Library and Information Research* 14, no. 1 (1992): 35.

¹⁹⁸ Kevin P. Jones, "How Do We Index?" *Journal of Documentation* 39, no. 1 (1983): 17.

¹⁹⁹ Wilson, *Two Kinds of Power: An Essay on Bibliographic Control*, 74.

may reflect only the concepts that can be represented by a particular indexing language. From the work of Šauperl, it is known that sometimes the subject headings applied to documents are not satisfactory even to the catalogers assigning them, and in some cases, the catalogers acknowledge assigning headings that just “don’t quite work.”²⁰⁰ Wilson also states it is not possible to determine the aboutness of a document from the aboutness of individual micro-components of its text. “The supposition, that one might get from a knowledge of what the separate sentences of a writing were about to a knowledge of what the writing as a whole was about, is therefore complicated by the fact that it is far from self-evident what, or how much, one must know,” in order to accurately say that one understands what a given sentence is actually about.²⁰¹

Of the researchers describing textual approaches to aboutness, however, not one has shown text reduction or summarization to be a practicable model for the conceptual analysis process. This does not mean, however, that facets of text reduction and text comprehension theories do not apply to the aboutness determination process. It just means that, ultimately, the models based on grammatical analysis, text comprehension, text reduction and linguistics do not fully explain how aboutness is determined.

²⁰⁰ Šauperl, *Subject Determination during the Cataloging Process*, 93.

²⁰¹ Wilson, *Two Kinds of Power: An Essay on Bibliographic Control*, 76-77; Wilson provides an example from Carnap in 1937. The sentence, “Yesterday’s lecture was about Babylon,” appears to say something about Babylon, since the name *Babylon* occurs in it. If taken as part of the analysis of the text, the inclusion of the concept *Babylon* might occur in the *aboutness* of the sentence. In reality, however, the sentence says nothing about Babylon, but merely something about yesterday’s lecture and the word *Babylon*; hence Wilson’s rejection of textual, macro-propositional approaches to aboutness.

2.2.4 Themes and Rhemes

A key feature of Hutchins' conceptual analysis process is identifying not only the themes in a text, but also looking for its *rhemes*. A *theme* is given or assumed information, or knowledge that is presupposed by the author. A *rheme* is considered to be new information in a document.²⁰² Hutchins proposes that when analyzing for the general public, the theme should be the focus of the conceptual analysis, since users cannot search for what they do not yet know; whereas for specialists, the analysis could be directed more toward the rheme.²⁰³ This rheme-based approach, however, would be very difficult to implement outside highly specialized journal indexes or special libraries. Even in those cases, there would still have to be an assumption that only those with highly specialized, sophisticated knowledge would be searching for the documents. This is an assumption most information-based institutions cannot afford to make. Astutely, Hutchins understood that his ideas of theme and rheme would have no real impact on indexing practices.²⁰⁴ Hutchins also writes that the task of the indexer is to summarize the main points and arguments of a text using the semantic structure of the document to determine the extensional aboutness. He states that by understanding all of the messages conveyed by each of the text's component parts, one can understand the whole.²⁰⁵ He also notes that indexers are concerned only with what is *said* in the text, not whether it is truthful or valuable, a distinction not often mentioned elsewhere.

²⁰² Hutchins, "The Concept of 'Aboutness' in Subject Indexing," 173; Hutchins, "On the Problem of 'Aboutness' in Document Analysis," 19.

²⁰³ Hutchins, "On the Problem of 'Aboutness' in Document Analysis," 32.

²⁰⁴ Hutchins, "The Concept of 'Aboutness' in Subject Indexing," 181.

²⁰⁵ Hutchins, *Languages of Indexing and Classification*, sections 7.3-7.4.6.

Weinberg notes that indexing is based on aboutness, and that descriptors reflecting a document's aboutness make for good indexing. She goes on to state, however, that simple aboutness-based indexing is far from adequate. She endorses Hutchins's notion of rhemes as a way to meet the unmet indexing needs of scholars who are often more interested in new information. She also states that subject analysis must deal not just with aboutness, but also with various other aspects of documents, including point of view, ideas, and theories.²⁰⁶ Weinberg, however, "fails to convince that these distinctions are really useful in the context of indexing or that it might be possible for indexers to maintain such distinctions."²⁰⁷ Hovi explores Hutchins's ideas by examining the variables involved in analyzing aboutness. In her study, she found that the most common approach to the conceptual analysis process centered on themes and not on rhemes.²⁰⁸

2.2.5 Use-Based Approaches to Aboutness

Another important view of aboutness originates with Maron. Maron examines the concept of aboutness in the context of users and use. This use-based view of conceptual analysis, too, is relatively common in the scant aboutness literature. Other authors view aboutness in terms of its relationship to users or potential uses. Maron's primary concern was the relationship between aboutness and relevance in information retrieval. His notion of aboutness involves three different types of about: *S-about*, *O-about*, and *R-about*. *S-about* is *subjective about*; it is based on the

²⁰⁶ Bella Hass Weinberg, "Why Indexing Fails the Researcher," *The Indexer* 16, no. 1 (1988): 3-6.

²⁰⁷ Lancaster, *Indexing and Abstracting in Theory and Practice*, 16.

²⁰⁸ Irmeli Hovi, "The Cognitive Structure of Classification Work," in *Information. Knowledge. Evolution. Proceedings from the Forty-fourth FID Congress held in Helsinki, Finland, 28 August-1 September 1988*, ed. by Sinikka Koskiala and Ritva Launo (Amsterdam: FID, 1989), 127.

complex relationship between a document and the inner experience of the reader. It is a personal, psychological approach that does not lend itself easily to study or quantification. O-about refers to *objective about*, which is found by considering the relationship between a document and a set of terms. The third type, R-about, refers to *retrieval about*. It is a probability distribution based on the number of users satisfied by a particular document found when searching particular indexing terms divided by the number simply satisfied with the document itself. This is Maron's attempt to operationalize about as a quantitative measurement.²⁰⁹ Olson and Boll explain the nature of R-about by stating that a document is about cats if most users would seek it by using the term *cats*.²¹⁰ Maron, however, recognizes that it is quite difficult to explain aboutness. "We all are able to think and understand and know what some piece of writing is about, yet we can't say exactly what is going on and, certainly, we cannot prescribe to another how he or she ought to do it."²¹¹

Hjørland examines aboutness in terms of various epistemologies, and how it is used to answer users' questions. Hjørland looks at subject through the lenses of empiricism, objective idealism, subjective idealism, nominalism, rationalism, pragmatism, historicism, activity theory, and realism. He states that the document's aboutness must predict the questions that the document will answer and the future applications of the document. He calls this the *epistemological potential* of the document.²¹² Hovi notes that information organizers may see

²⁰⁹ M.E. Maron, "On Indexing, Retrieval and the Meaning of About," *Journal of the American Society for Information Science* 28, no. 1 (1977): 41.

²¹⁰ Olson and, *Subject Analysis in Online Catalogs*, 89.

²¹¹ Maron, "On Indexing, Retrieval and the Meaning of About," 40.

²¹² Hjørland, *Information Science and Subject Representation*, 87; Birger Hjørland, "The Concept of Subject in Information Science," *Journal of Documentation* 48, no. 2 (1992): 198; Hjørland and Nielsen, "Subject Access Points in Electronic Retrieval," 252; Birger Hjørland, "Towards a Theory of Aboutness, Subject, Topicality," 776.

“the document primarily as a text or primarily in view of the needs of the users.”²¹³ This approach reflects Soergel’s distinction between *entity-* or *content-oriented* indexing and *request-* or *problem-oriented* indexing.²¹⁴ Request-oriented indexing anticipates users’ needs by considering the potential queries relevant to the item. These queries can then provide the foundation for document representation. Entity-oriented indexing focuses on the document; it refers to traditional indexing practices and to the notion of extensional aboutness. Fidel elaborates on Soergel’s ideas on indexing, concluding that current practice could use both the entity- and request-oriented approaches.²¹⁵ Wellisch also promotes, among other approaches, a user-centered orientation to indexing. He states that aboutness should be concerned with:

- Who is using the document, and for what purposes?
- What purpose did the author originally intend?
- Why is the document likely to be of interest to groups?
- What does it mention and for whom is it intended?²¹⁶

Stanley, an art librarian, also states that a key factor in subject analysis should be “anticipating reference queries.” She believes that analysts should ask:

- What is in the document that would be of interest to readers?
- What parts of the document will they want to be directed to?
- What information in the document is important?²¹⁷

Albrechtsen describes three approaches to determining aboutness. The first is a simplistic conception of subject analysis, which entails direct abstraction from documents. It is the method

²¹³ Hovi, “The Cognitive Structure of Classification Work,” 127.

²¹⁴ Dagobert Soergel, *Organizing Information: Principles of Data Base and Retrieval Systems* (San Diego: Academic Press, 1985), 227-233.

²¹⁵ Raya Fidel, “User-Centered Indexing,” *Journal of the American Society for Information Science* 45, no. 8 (1994): 572.

²¹⁶ Hans H. Wellisch, “Aboutness and Selection of Topics,” *Keywords* 4, no. 2 (1996): 7.

²¹⁷ Janet Stanley, “Reference Librarian as Cataloger: Analytical Indexing as Front-End Reference,” *Art Documentation* 14, no. 4 (1995): 8.

used in automatic indexing, and is based on computational linguistics and statistics. The second is a content-oriented conception, which is based on representing the document's content as an isolated entity of knowledge. It involves the interpretation of content by human indexers. This is current practice, and is not without its shortcomings. The third approach, requirements-oriented subject analysis, bridges Soergel's request-oriented indexing and Hjørland's epistemological potentials. The third approach is not focused on representation, but on how to make the document visible to potential users; it focuses on what terms should be used to convey the document's knowledge to users.²¹⁸ Albrechtsen lists the advantages and disadvantages of each approach, concluding that today's practice of content-oriented subject analysis is safe, modest, and value-free, but the potential of the requirements-oriented approach may be worth the costs of changing practices.²¹⁹

These types of request- or query-based approaches, however, require the analyst to predict users' immediate and future needs; obviously, this is challenging, if not impossible, for the subject analyst. Beghtol acknowledges that "the cognitive process of identifying the intrinsic aboutness of a document has not been systematically addressed, nor has a comprehensive theory of the aboutness of all documents been developed for use as a theoretical framework in library and information science research."²²⁰ Fairthorne states, "An indexer does not and cannot index all the ways in which a document will interest all kinds of readers, present and future."²²¹ Finally, Olafsen and Vokac state, "The indexer has to make guesses at what questions the future user of the system will put. Regardless of how cleverly the guesswork is constructed, they are

²¹⁸ Albrechtsen, "Subject Analysis and Indexing," 221-222.

²¹⁹ *Ibid.*, 223.

²²⁰ Beghtol, "Bibliographic Classification Theory and Text Linguistics," 86.

²²¹ Fairthorne, "Content Analysis, Specification, and Control," 77.

still guesses, while the user approaches the system with his own concrete question, and his associations may be different from those of the indexer.”²²² Therein lie the difficulties associated with use-based approaches to aboutness.

²²² Tore Olafsen and Libena Vokac, “Authors’ reply to R Moss’s Letter to the Editor,” *Journal of the American Society for Information Science*, 34, no. 4 (1983): 294.

CHAPTER 3.0 RESEARCH DESIGN AND METHODOLOGY

3.1 RESEARCH STRATEGIES AND RATIONALE

The focus of this dissertation research is an examination of the processes underlying the conceptual analysis of documents. Research concerns addressed in this study include exploring and describing the nature of aboutness determination, identifying and describing patterns in the participants' processes, identifying the important textual and visual cues to aboutness in documents, and identifying the bibliographic features used to understand aboutness. Since the research questions are exploratory and descriptive in nature, qualitative methods were deemed most appropriate for the inquiry. Gay and Airasian state, "Qualitative research is exceptionally suited for exploration, for beginning to understand a group or phenomenon. Such explorations often result in initial developments of new theories."²²³ Marshall and Rossman state that qualitative methods are well suited for research:

- that delves in depth into complexities and processes;
- on little-known phenomena; and
- in which relevant variables have yet to be identified.²²⁴

²²³ Lorraine R. Gay and Peter Airasian, *Educational Research: Competencies for Analysis and Application* (Upper Saddle River, NJ: Merrill/Prentice-Hall, 2000), 202.

²²⁴ Catherine Marshall and Gretchen B. Rossman, *Designing Qualitative Research*, 2nd Ed., (Thousand Oaks, Ca.: Sage, 1995), 43.

All of these conditions apply to this research. The researcher, through qualitative research methodologies and data analysis techniques, observed:

- how participants determine the aboutness of items;
- patterns in the aboutness determination process; and
- bibliographic, textual, and visual features important to the conceptual analysis process.

The translation step of subject analysis, i.e., the process of describing a document’s aboutness with various forms of indexing languages, was not addressed in this research. Langridge, Taylor, and Chu and O’Brien have all stressed the need to conduct the conceptual analysis independently from the translation phase.²²⁵

Marshall and Rossman provide strategies and techniques they deem appropriate for various types of research studies. Table 3.1 shows their guidelines for determining an approach to exploratory and descriptive studies.²²⁶

Table 3.1: Marshall and Rossman's Approaches to Descriptive and Exploratory Research

<i>Purpose of Study</i>	<i>Strategy</i>	<i>Data Collection Techniques</i>
Descriptive	Case Study Ethnography Field Study	Document Analysis In-depth Interviews Participant Observation Survey/Questionnaires Unobtrusive Measures
Exploratory	Case Study Field Study	Elite Interviews In-depth Interviews Participant Observation

²²⁵ Langridge, *Subject Analysis: Principles and Procedures*, 6-8; Taylor, *The Organization of Information*, 242-243; Chu and O’Brien, “Subject Analysis: the Critical First Stage in Indexing,” 451.

²²⁶ Marshall and Rossman, *Designing Qualitative Research*, 41.

Because the focus of this research is centered on a process rather than on investigating a particular setting or cultural group, the approach deemed most appropriate for this research was the case study approach instead of a field study or ethnography. This approach was tested in the 2004 pilot study to see if it was indeed feasible before being implemented on a larger scale. The pilot study demonstrated that this was a fruitful approach for exploring the research questions. The pilot study is discussed further in this chapter.

In order to investigate the conceptual analysis process, participants were recruited for a case study in which they were asked to analyze documents while being observed and tape-recorded. As aboutness determination is primarily an internal process, the participants were asked to verbalize their thoughts during the aboutness determination process. Participants received no training or instructions on how to determine aboutness, and no time-restrictions were placed on the participants' analyses. A two-hour time frame was suggested, but was never enforced. Once the participants had come to a conclusion regarding the item's aboutness, they were asked to write a statement describing their understanding of that aboutness. After observing each session, the researcher then discussed the process with the each participant. An interview guide was used, but the semi-structured nature of the interviews allowed the researcher to ask questions based on observations and on participants' responses to previous questions. After the interviews, the researcher transcribed the recordings for analysis.

Data collection incorporated the use of think-aloud methods, in-depth interviews, and participant observation. Multiple data collection techniques were used for the purpose of triangulation. Think-aloud methods, participant observation, and interviews are efficient ways of gathering large amounts of qualitative data from participants over a relatively short period of time. This study generated data in the form of transcripts of the tape-recorded sessions and

interviews, participants' written aboutness statements, and the researcher's field notes from the participant observations.

3.2 SITE, PARTICIPANT, AND MATERIALS SELECTION

3.2.1 Site Selection

As the research is focused on a particular phenomenon as performed by a particular population, i.e., the process of determining aboutness by budding information professionals, the research was not site-specific. It could have been conducted anywhere with access to the population of interest. The research was conducted at the School of Information Sciences at the University of Pittsburgh, Pennsylvania. It was a convenient and logical site for the research study. Entry to the site was not a problem since the researcher was already a member of that community.

3.2.2 Participant Selection

The population under study is the inexperienced information professional. Experienced, professional librarians and indexers were not the most appropriate population for this research. Šauperl's research illustrates precisely why experienced catalogers and indexers were not sought as participants. Exploring similar interests in subject determination, Šauperl found that working professionals frequently relied on purely practical approaches, shortcuts, and their extensive knowledge of indexing systems. Instead of gaining insight into subject determination, her participants demonstrated processes of subject indication. Instead of observing thoughtful

examinations of the items to carefully determine aboutness, Šauperl observed catalogers often hurrying to find workable subject headings and classification numbers. Many relied heavily on catalog records for items they considered to be similar to the items in hand.²²⁷ So, working professionals were deliberately excluded from the research design to avoid their shortcuts and the commingling of the conceptual analysis and translation processes that occurred in Šauperl's study. Persons not intending to become information professionals were also inappropriate for the research. Lacking any understanding of or interest in the importance and meaning of information organization processes, such participants might have been less committed to the tasks at hand. The focus of this research is on the inner subject determination processes of naïve information professionals; thus, experienced catalogers and disinterested parties would not be helpful in achieving the goals of this study.

As future information professionals, LIS students were ideal subjects for this study. LIS students have some grounding in the discipline and a basic understanding of the importance of the organization of information. While they have had some exposure to the discipline, they are also relatively uneducated in the practices of information organization. Even before any exposure to cataloging or indexing theory occurs, students are able to understand the importance and basic requirements of the task; their lack of prior practical experience acts to prevent bias in their notions of conceptual analysis. In the context of this study, library and information science students with no coursework in information organization (cataloging, indexing, or basic information organization) were the ideal population with which to conduct this research.

The research design was submitted to the Institutional Review Board (IRB) at the University of Pittsburgh. The IRB determined that the research was unlikely to cause harm to human participants, and fit the criteria for exempt status. This meant that the research could

²²⁷ Šauperl, *Subject Determination during the Cataloging Process*, 122-129.

proceed as designed using human participants. See Appendix A for a copy of the exemption letter from IRB. Upon receiving this exemption, participants were recruited for the study from the population of Master's students in the Department of Library and Information Science using flyers posted around the Information Science building, through recruitment talks in various LIS courses, and through email announcements. An incentive, consisting of a \$15 gift certificate for either a national movie theater chain or a local pizzeria, was offered to encourage participation. Given the potential for data overload inherent in qualitative research, the number of participants was limited in order to keep the amount of analyzable data per subject manageable. Based on the similar structure of the study done by Šauperl, the number of participants was limited to twelve.

Individual interviews were scheduled with the first eighteen students to respond to the request for research volunteers. An introductory script was used in the initial interview to standardize interactions with each of the potential participants. This script included information about the researcher, the purpose of the study, the tasks to be completed, requirements for participation, and issues of anonymity and confidentiality. See Appendix B for the text of the introduction script. Basic demographic information was collected, including information about subject's educational background, library experience, MLIS core coursework completed, and native language. Appendix C contains this information sheet. Students with any practical experience in cataloging or indexing (including the introductory course on bibliographic control, *LIS 2001 Organizing Information*) would be excluded from the study. Potential participants not wishing to be tape recorded would also be excluded from the study, if the situation arose. A think-aloud exercise was also used in order to screen participants to weed out those unable to communicate verbally while performing other tasks. Appendix D contains the think-aloud exercise.

Of the eighteen potential participants, two did not come to their scheduled appointments. Two others were out-of-state residents who could not come to Pittsburgh for the study. These four volunteers were eliminated. One participant had some practical experience in indexing; she too was eliminated. The thirteen remaining participants showed proficiency in handling the think-aloud tasks and had not taken coursework in information organization, indexing, or cataloging, and had no practical experience in these areas. Had these candidates not been satisfactory, recruitment would have continued, but the thirteen participants remaining appeared to be acceptable. The researcher decided to include all thirteen to avoid eliminating any one participant, which would also provide a participant in reserve in the event that one dropped out of the study. The presence of this reserve participant was fortunate, since one participant was indeed lost when he decided to drop out of the Master's program; he was eliminated from the study. This left twelve volunteers to participate in the study.

3.2.3 Materials Selection

The documents analyzed by the participants were limited to three books selected by the researcher. Books were chosen over other document types to eliminate extraneous variables associated with other formats. In considering the items to be analyzed, the work of Chu and O'Brien informed the selection of the books to be analyzed. Their study determined five factors that influence the subject analysis process: discipline-orientation of the text, factual vs. subjective texts, complexity of the subject, presence of bibliographic apparatus such as abstracts, subtitles, chapter headings, etc., and clarity of the text.²²⁸ Each factor was considered in the book selection process. For this research, a single item was chosen from each of the three broad

²²⁸ Chu and O'Brien, "Subject Analysis: the Critical First Stage in Indexing," 451.

categories of knowledge: the humanities, the social sciences, and the sciences. A range of items was required to avoid giving any one participant an unfair advantage based on subject expertise. For example, three items on nutrition would have provided an advantage to participants with degrees in nutrition. The three items all represent non-fiction, English language, non-juvenile, text-focused monographs. Two of the selected books could be considered popular non-fiction, and their selection was intended to avoid difficulties associated with highly complex or technical information. The third item is much more scholarly, but non-technical, in nature. Three other items were held in reserve in case some participants had read the chosen items. The sequence in which the items were analyzed was determined by the researcher based on an impression of the difficulty of each item.

The three books have disparate approaches to the organization and structure of their content. The first item, *We've Got Issues: The Get Real, No B.S., Guilt-free Guide to What Really Matters*, is a social sciences monograph informing members of Generation X about important political issues in the 2000 U.S. presidential election.²²⁹ This trade paperback contains 17 chapters, each beginning with a chapter abstract and containing numerous section breaks with descriptive section headings. It has a pop culture orientation, vivid cover art, and a clear introduction and conclusion. This item is the most accessible in terms of its language and structure. It is written as a collection of chapters addressing different topics, all of which are a part of one overarching theme. The brightly colored, green cover contains the title proper, *We've Got Issues*, in big, bold yellow letters written across the top. The subtitle, in a smaller font, is placed across the bottom along with the author's name. The spine contains only the author's last name and the title proper. There a number of images on the cover, including a cartoon figure of a

²²⁹ Meredith Bagby, *We've Got Issues: The Get Real, No B.S., Guilt-free Guide to What Really Matters*, (New York: PublicAffairs, 2000).

man with a question mark over his head and thirty-eight small blue circles containing various symbols, such as a tree, a cross, the Star of David, a clock, a gun, and others.²³⁰

The second item, *The Crazy Makers: How the Food Industry is Destroying Our Brains and Harming Our Children*, is from the sciences. It is a trade paperback relating diet and nutrition to brain health, and it, too, has a pop culture sensibility.²³¹ This item contains eight chapters, each beginning with a relevant quote, but a quote that does *not* summarize the content of that chapter. The text contains descriptive section headings, charts, lists, sidebars, and tables. It does not have a conclusion; the final chapter contains recipes and meal plans. While it does tackle scientific issues, it is written in very accessible, concrete language. The text is structured to reflect one theme throughout the book; each chapter is connected to the others surrounding it, but each contains distinct subtopics. Both the first and second items are straightforward in their approach to the subject matter. The numerous chapter divisions, section headings, and visual features help to make these items more accessible and easier to analyze. The book's title is centered on the cover in big black letters with the subtitle written in smaller white letters on a red background. The author's name is written across the bottom of the cover. The background for the entire cover contains a repeated image of a large cheeseburger. On the spine, the title proper and author's last name are written, but the subtitle has been shortened to: *How the Food Industry is Destroying Us*.²³²

²³⁰ The cover of this work and more information can be found at <http://www.publicaffairsbooks.com/publicaffairsbooks-cgi-bin/display?book=1891620797>

²³¹ Carol Simontacchi, *The Crazy Makers: How the Food Industry is Destroying Our Brains and Harming Our Children*, (New York: Jeffrey P. Tarcher/Putnam, 2000).

²³² The cover of this work and more information can be found at http://www.penguinputnam.com/nf/Book/BookDisplay/0,,0_1585421049,00.html

The third book in the sequence, *The Death of Satan: How Americans Have Lost the Sense of Evil*, is a humanities text addressing the evolution of the concept of evil in America as illustrated in American literature and history.²³³ This hardback book comprises seven chapters, which use section numbering instead of descriptive section headings. There are few breaks in the continuous, scholarly text. Its cover is a solid grey color and contains no cover art or words. The spine contains the title proper and the author's last name, but not the subtitle. The book contains few illustrations. Its language is scholarly and its textual structure is more complex than that of the other two items. The chapter titles are not clearly indicative of the content of the chapters. The text is a complex, abstract argument built over seven chapters. It was the most difficult item to analyze. The back-up humanities text, *Folklore and the Sea*,²³⁴ was the only substitute item used. It was used for Participant 6 because she had already read *The Death of Satan*.²³⁵

All twelve participants analyzed the same items, in the same order, except in the one instance where Participant 6 had previously read the humanities text. The diversity of the items gave the participants a range of content with which to work, despite the small number of items to analyze. In order to avoid influences on the participants from the Cataloging in Publication (CIP) information, the CIP information was blacked out, and then covered by opaque material. The book jacket for *The Death of Satan*, the hardback text, was removed, and the back covers of the paperback items were blacked out to remove the publishers' summary information.

²³³ Andrew Delbanco, *The Death of Satan: How Americans Have Lost the Sense of Evil*, (New York: Farrar, Straus and Giroux, 1995); More information on this work can be found at: <http://www.dianepublishingcentral.com/ProductDetail.asp?ProductID=12386>

²³⁴ Horace Beck, *Folklore and the Sea*, (Edison, NJ: Castle Books, 1999).

²³⁵ In the following chapters, the social sciences monograph, *We've Got Issues*, may be referred to by its title, as "Book One," "Item 1," or as "the first item." The sciences item, *The Crazy Makers*, may be referred to by its title, as "Book Two," "Item 2," or as "the second item." The humanities item, *The Death of Satan* may be referred to by its title, as "Book Three," "Item 3," or as "the third item."

3.3 RESEARCHER'S ROLE

In qualitative research, the researcher is the primary data collection instrument, and his or her relationship to subjects can range from cooperative participation to strictly observational, with no personal subject-researcher interaction at all. The levels of interaction for this study were determined by the particular data collection techniques employed. The researcher's role was most active during the in-depth semi-structured interviews, where it involved leading the conversation, probing, and interacting closely with the participant during the give-and-take of the interview. In the think-aloud sessions and during the observations, the researcher's role was closer to that of a non-participating observer, using only gentle, non-content-oriented probes when the participants stopped speaking.

In addition to the level of interaction, the researcher's level of openness about the nature of the study had to be decided. In this study, the researcher fully disclosed the intent of the research, as there was no need or justification for any level of secrecy. Since the research was not set in a particular professional workplace, issues of presence in the setting and issues of entry were irrelevant. The researcher addressed issues of anonymity and confidentiality with each of the participants during their initial meetings and then again at their conceptual analysis sessions.

In qualitative research, interpersonal considerations must also be addressed. The researcher's interpersonal skills are paramount. It is important to build trust, maintain good relations with the participants, use sensitivity in regard to ethical issues, and respect norms of reciprocity.²³⁶ There is no substitute for developing easy conversation, being an active and thoughtful listener, being empathetic and understanding, and showing a profound respect for the

²³⁶ Marshall and Rossman, *Designing Qualitative Research*, 65.

perspective of others.²³⁷ In order to practice these skills, and for myriad other purposes, a pilot study was conducted.

3.4 PILOT STUDY

Before the actual data collection for the dissertation research began, a pilot study was conducted to test all of the data collection instruments and methods for their viability. The pilot study was a chance for the data collection instruments to be refined, for the data collection processes to be rethought, and for the researcher to practice interviewing skills, observation techniques, the handling of the recording and transcription equipment, and using the qualitative data analysis software. It was also an opportunity to begin developing a coding scheme to be used for the final dissertation research, and to choose which books from a pool of six were to be used in the research. The three major data collection methods, i.e., think-aloud protocol, in-depth interview, and observation, were tested. Another data collection method was also tested during the pilot study; this method involved the use of an open-ended questionnaire for the participants to fill out after they had conducted their analyses. This data collection technique was dropped after the pilot study for reasons described in the next section.

The pilot study was conducted at the School of Information Sciences at the University of Pittsburgh. Three students from the Department of Library and Information Science were used as participants. For the purposes of creating a pilot study as similar to the final research as possible, it was important that the students did not have practical experience in subject analysis and had

²³⁷ Ibid., 65.

not been exposed to subject analysis concepts in their LIS courses. In the pilot study, each participant performed a conceptual analysis of two items and data were collected using two of the data collection techniques; observation was performed during all of the analysis sessions. Each participant was asked not to discuss the research with others.

3.5 RESULTS OF THE PILOT STUDY

The pilot study proved to be valuable for the final research. Its primary benefit came from the adaptations that were made to the study's design, based on findings from the pilot. These alterations included changing the overall approach to data collection and eliminating the open-ended questionnaire. The pilot study was also beneficial in that it provided the opportunity to begin to develop the coding scheme that was ultimately used in the data analysis phase of the final dissertation research.

In the original research design for the study, data collection was to be limited to one method per participant. The twelve participants were to be divided into three groups, each providing data in three different ways. One group would perform the think-aloud tasks, one would be interviewed after the analyses, and one would complete the open-ended questionnaire. This notion was a remnant from the researcher's earlier interests in experimental research design. The pilot study was conducted in this manner. During the pilot study, it became obvious that this approach was flawed. The most complex and interesting data were being provided through the think-aloud method and, to a lesser extent, the semi-structured interview. The most important change in the research design came from a realization that the one-method-per-person approach

did not support the goal of obtaining as much rich data as possible; limiting the ways in which data were collected subverted many of the benefits of using qualitative research methods. The data collection approach was changed to incorporate all methods for all participants. This revision allowed for the collection of fuller, richer data, which is more in line with the qualitative research paradigm.

The second major change was the elimination of the open-ended questionnaire. In hindsight, the questionnaire may have been a bad idea, and it is clear that its execution was flawed. In order to collect useful data, the questionnaire grew longer and more detailed. Ultimately, it expanded to six pages. During the pilot study, completing the questionnaire required more of the subjects' time than that was required to perform the actual analyses. It increased the length of each participant's session to over three hours. Due to the questionnaire's length, it also became clear that participants would either devote too much of the allotted time to the questionnaire, or they would shortchange the answers in an attempt to save time. Either result was unacceptable. It was decided that the questionnaire should be eliminated, although the final page, a checklist of possible approaches to aboutness, was kept for a little while longer. Ultimately, even that was eliminated, as it provided little useful data and caused confusion for the participants.

Another major benefit from the pilot study was the development of the foundations for the coding scheme used in the final research. In analyzing the participants' transcripts, using QSR's N6 (NUD*IST) software, the initial coding scheme was developed using an inductive approach. The content was analyzed for reoccurring themes and patterns. These themes were then grouped into four major categories with numerous subcategories. These are shown in Table 3.2.

Table 3.2: Pilot Study Categories

<i>Categories</i>	<i>Subcategories</i>
Aboutness Approaches	Author-based approaches Bibliographic feature/cues Categories/Types of information Document/Users approaches Text qualities/features Visual features/cues
Actions Taken	Cognitive processes Text analysis processes Whole item actions Writing aboutness statements
Influences On Process/Problems	Ambiguity in item Comfort levels Confidence level/Felt judged Difficult text to summarize Difficulty level Liked the books/Became engrossed in the text Need more time Purpose of conducting the analysis Worked slowly
Participant and Base Data	Data collection method Items Participants

These categories were the starting point for the coding scheme that developed throughout the data analysis process of the final study.

A final benefit of the pilot study was the opportunity to refine the tools to be used in the final dissertation research. The instructions that were presented to the participants, in both written and oral forms, were refined in the pilot study. The interview guide also went through extensive revision due to the feedback from the pilot study.

3.6 DATA COLLECTION

The primary data collection methods employed in this study were the think-aloud protocol, observation, and the in-depth, semi-structured interview. All three methods were used with each participant in order to increase the trustworthiness of the data collected. “The use of multiple methods, or triangulation, reflects an attempt to secure an in-depth understanding of the phenomenon in question”²³⁸ and to increase the robustness of the data collected in the study. All data collection techniques were first tested in the pilot study in order to refine the sets of written instructions, the interview guide, the researcher’s observation and interview skills, and the think-aloud process.

Individual analysis sessions were held with each of the twelve participants over a six-week period. During these sessions, the participants had no access to computers, classification schemes, subject heading lists or indexes, the CIP information, or the book jacket and back cover summaries found on the items. The researcher began each session by reading written guidelines to the participant. See Appendix E for the instructions for the think-aloud process and the interview. All participants received the general introductory script explaining the nature of the experiment and the tasks to be performed. See Appendix B for the introduction script.

Each participant was asked to conduct a conceptual analysis of each of the three documents and to write aboutness statements describing the subjects of the documents. No detailed guidelines were provided for determining aboutness, and there were no limits placed on the length of the aboutness statements or on the number of concepts included in the conceptual analyses. All participants were instructed to determine aboutness in any way they chose other than by attempting to read the entire document, which was not possible given the suggested time

²³⁸ Denzin and Lincoln, “Introduction: The Discipline and Practice of Qualitative Research,” 5.

frame. Each participant was instructed in the concept of exhaustivity so they understood the difference between depth indexing and summarization. This study was seeking summarization-level aboutness since the documents analyzed were books, and the context for the research was traditional subject cataloging. Each session was tape-recorded to guarantee complete data collection. An extra supply of batteries and audiocassettes were on hand in case of equipment malfunction. All participants were asked not to discuss the research activities with any of the other participants in the study.

Once the instructions were communicated, the participants performed the three conceptual analyses using think-aloud methods, i.e., they spoke aloud what was going through their minds as they performed the tasks. After the conceptual analyses and the creation of the three aboutness statements, in-depth, semi-structured interviews were conducted. It was important for the interviews to take place immediately after the analyses so that the material was fresh in the participants' minds. While some structure was provided through the use of an interview guide, the researcher wanted each participant's perspective of the process to be described in the participant's terms, not the researcher's.²³⁹ See Appendix F for the Interview Guide. Immediately after each session, the researcher transcribed the audiotapes. All documents, including transcripts, field notes, aboutness statements, and audiotapes, were organized by the participant identification number in a filing system. The transcripts were then imported into QSR's N6 (NUD*IST) software for data analysis.

²³⁹ Marshall and Rossman, *Designing Qualitative Research*, 80.

3.7 DATA ANALYSIS

Data analysis is:

the process of bringing order, structure, and meaning to a mass of collected data. It is a messy, ambiguous, time-consuming, creative, and fascinating process. It does not proceed in a linear fashion; it is not neat. Qualitative data analysis is a search for general statements about relationships among categories of data.²⁴⁰

Data analysis began in November 2004 after data collection was completed. The researcher originally intended for data analysis to begin at the same time as data collection. Since qualitative research is an iterative process, an advantage of qualitative methods is that data analysis of initial sessions can be used to inform subsequent data collection sessions. This can allow the researcher to continue to clarify and refine questions, processes, and probes as needed. Due to the amount of time it took to transcribe the tape-recordings, it was not possible to perform any significant data analysis before the next participant's session. Some questions changed based on what was being encountered in some of the participants' sessions, and some lines of inquiry were added as well, but the overall structure of the interview guide remained the same.

The data collected were all in the forms of documents. Therefore, qualitative document-analysis techniques were employed. The participants' transcripts and aboutness statements were examined using content analysis techniques. QSR's N6 (NUD*IST) software for qualitative analysis was used to analyze and code the data. The researcher was searching for patterns among the participants' conceptual analysis methods and in the use of bibliographic and content features of the analyzed items. The initial coding scheme, developed from the June 2004 pilot study transcript data using induction techniques, continued to be refined as the data from the final study were examined. The coding scheme also included concepts and approaches to aboutness

²⁴⁰ Ibid., 111.

based on the LIS literature, primarily Ranganathan's facet analysis, textual approaches, use-based approaches, and the works of Wilson, Langridge, and Taylor. The researcher's field notes were used to help clarify the activities that were observed and to help clarify the transcripts when questions arose.

Three rounds of data analysis were conducted between November 2004 and April 2005. The first round was a rough coding of the data to explore the transcripts and expand, develop, and refine the categories in the coding scheme using inductive analysis. After the first round of analysis, the coding scheme underwent an extensive examination during which all text assigned to each of the categories was reviewed. This process allowed for greater understanding of the nature of each category, for refining the definitions of the categories, and for developing an initial understanding of the relationships among the categories. During this examination of the coding scheme, many synonymous categories were merged, and others were separated into discrete classes. The revised scheme contained 225 active categories. As data analysis was ongoing, the coding scheme continued to evolve. A second round of detailed, line-by-line coding began in December 2004 and was completed in January 2005. In this second round of coding, more explicit patterns in the transcripts began to appear. A third round of data analysis was conducted between March and April 2005. It focused on refining the models of aboutness determination that will be discussed in later chapters. At its peak the coding scheme contained over 250 active categories. By April 2005, the number of active categories had been reduced to 202. These categories might be further refined with additional time. Quantitative or statistical methods were not used in the data analysis. With the small number of participants, statistical analysis was unnecessary and inappropriate. As the data were collected and interpreted, the

findings were shared with the participants and feedback was sought to enhance the trustworthiness and plausibility of the interpretations.

3.8 TRUSTWORTHINESS OR QUALITY CONTROL

Criteria addressing issues of quality or trustworthiness are as varied as the methods available to undertake qualitative research. Every text on qualitative research has its own approach to these concepts. Some embrace the use of the traditional evaluation criteria of reliability and validity, both internal and external. Some, like Wolcott (cited by Gorman and Clayton), believe that “neither concept should carry any weight outside quantitative circles.”²⁴¹ Others discuss alternative concepts such as credibility and transferability in their place.

Many members of the critical theory, constructivist, poststructuralist, and postmodern schools of thought reject positivist and postpositivist criteria when evaluating their own work. They see these criteria as irrelevant to their work and contend that such criteria reproduce only a certain kind of science, a science that silences too many voices. These researchers seek alternative methods for evaluating their work including verisimilitude, emotionality, personal responsibility, an ethic of caring, political praxis, multivoiced texts, and dialogues with subjects.²⁴²

This research study *does* address the issues of reliability, internal validity, and external validity, however. Merriam states, “In qualitative research, as in other kinds of research, there are ways to ensure for rigor in the conduct of the study.”²⁴³

²⁴¹ Harry F. Woolcott, *The Art of Fieldwork*, (Walnut Creek, CA: College Press, 1995) quoted in G.E. Gorman and Peter Clayton, *Qualitative Research for the Information Professional: a Practical Handbook* (London: Library Association, 1997), 58.

²⁴² Denzin and Lincoln, “Introduction: The Discipline and Practice of Qualitative Research,” 10.

²⁴³ Sharan B. Merriam, *Qualitative Research in Practice*, (San Francisco, Ca. : Jossey-Bass, 2002), 22.

3.8.1 Internal Validity

Internal validity addresses the question, “Are we measuring what we think we are measuring?” This is a question of reality. This can be difficult to address in the quantitative research paradigm, which does not embrace the notion that there are many varying and shifting views of reality. In the qualitative research paradigm, however, it is understood that at any given time, each participant is constructing his or her own reality, leading to an understanding that interpretation is standard practice in all research. As such, interpretation is not something to be feared or dismissed. Merriam states:

Because qualitative researchers are the primary instruments for data collection and analysis, interpretations of reality are accessed directly through observations and interviews. We are *closer* to reality than if an instrument with predefined items had been interjected between the researcher and the phenomenon being studied. Most agree that when reality is viewed in this manner—that it is always interpreted—internal validity is considered a strength of qualitative research.²⁴⁴

There are a number of ways in which qualitative researchers can augment the internal validity of a study. These include the use of:

- **Triangulation:** a method for using multiple data collection techniques, multiple theories, multiple researchers, or multiple approaches to confirm emerging findings;
- **Member checks:** asking some of the study participants to review the interpretations and findings for plausibility;
- **Peer review:** discussions with colleagues regarding the study; and
- **Reflexivity:** reflecting on the role, assumptions, worldview, and biases of the researcher, rather than ignoring them or believing that they can be controlled.

This research employed all four methods to help assure internal validity, relying most heavily on triangulation in data collection and member checks for the data interpretation. For example the researcher has met with four of the participants to revisit the process, review the transcripts, and

²⁴⁴ Ibid., 25.

discuss the researcher's interpretations of the results. It has been a valuable process, providing both feedback and reinforcement to the researcher.

3.8.2 Reliability

Reliability refers to the extent to which research findings would yield the same results if the study were repeated by another researcher. This traditional notion of reliability is steeped in a positivist worldview. Merriam states, "Reliability is problematic in the social sciences simply because human behavior is never static, nor is what many experience necessarily more reliable than what one person experiences.... The more important question for qualitative researchers is *whether the results are consistent with the data collected.*"²⁴⁵ Lincoln and Guba, instead of embracing the positivist approach to reliability, focus the discussion instead on *dependability* or *consistency*.²⁴⁶ In their view, "rather than insisting that others get the same results as the original researcher, reliability lies in others concurring that given the data collected, the results make sense—they are consistent and dependable."²⁴⁷ There are a number of ways in which qualitative researchers can ensure the reliability of the study. These include:

- **Practicing data collection techniques;**
- **Triangulation;**
- **Peer review;**
- **Reflexivity;** and
- **Creating an audit trail:** tracking and recording the progress of the research through a detailed account of methods, processes, and decisions; the most common way in which this is done is through the keeping of a research journal.

²⁴⁵ Ibid., 27. Emphasis in the original.

²⁴⁶ Marshall and Rossman, *Designing Qualitative Research*, 143.

²⁴⁷ Merriam, *Qualitative Research in Practice*, 27.

The research employed all five methods through the use of triangulation in data collection, through frequent peer review, exercising reflexivity and self-examination, conducting a pilot study to practice data collection, and by creating an audit trail by means of a research journal.

3.8.3 External Validity

External validity refers to the generalizability of the study. “The basic question, even for qualitative research, is the extent to which the findings of one study can be applied to other situations. But since small, non-random samples are selected purposefully in qualitative research, it is not possible to generalize statistically. A small sample is selected precisely because the researcher wishes to understand the particular in depth.”²⁴⁸ Generalizability, therefore, must be viewed in terms of the qualitative paradigm, i.e., “thinking of what can be learned from an in-depth analysis of a particular situation and how that knowledge can be transferred to another situation.... Probably the most common way generalizability has been conceptualized in qualitative research is as *reader* or *user generalizability*.”²⁴⁹ This refers to the idea that it is not the researcher who declares the generalizability of the data, but it is instead left to the reader to decide what is applicable to their own situation. There are ways in which qualitative researchers can improve the external validity of the study. These include:

- **Thick, rich description:** focusing on the descriptive, exploratory nature of the research, and providing enough detail and context to the reader so that he or she may decide for himself or herself whether the research is applicable to his or her own situation; and
- **Maximizing variation:** including as much diversity as possible in the sample selection and the sites selected to allow for greater applicability.

²⁴⁸ Ibid., 28.

²⁴⁹ Ibid.

The research employed both to whatever extent was possible. This measure of trustworthiness, though, is the most problematic due to the small number of participants necessary to gain an in-depth understanding of a particular phenomenon. While thick description has been incorporated into the dissertation, maximizing variation was not as achievable. While the group was appropriate for the research study, the sample was self-selected and largely homogenous in demographic characteristics. In the group of twelve participants, only one participant was not Caucasian, only three were male, and only four were above the age of 30. This study's sample was therefore one of mostly young, white, English-speaking, native-born American women who have recently finished their undergraduate degrees, which obviously does not provide much diversity in terms of cultural background.

3.9 PARTICIPANTS

Participant 1 is in her late 40s and is making a career change. Her undergraduate degree was in nutrition, and she has been working as a sales representative for a food supply company for two years. She had just begun the MLIS program at the University of Pittsburgh at the time of the study. Participant 1 has had some work experience in two different libraries as a clerk or library aide. Her primary professional interest is in young adult services. At the time of the study, she had not had experience or coursework in cataloging, indexing, or the organization of information. She was a direct, open, and enthusiastic participant.

Participant 2 is in her mid-20s. Her undergraduate degree was in political science with a minor in computer science. She has been working in a technology-related position for a local

university. Participant 2 has had some volunteer experience in a local public library, but has yet to be employed in a library or information center. Her primary professional interest is in digital libraries. At the time of the study, she had not had experience or coursework in cataloging, indexing, or the organization of information.

Participant 3 is in her mid-20s and is making a career change. Her undergraduate degree was in psychology, and she has been working in medical billing for a medical diagnostic service. She had just begun the MLIS program at the University of Pittsburgh at the time of the study. She had worked for two years in the interlibrary loan department of a college library. Her primary professional interest is in academic libraries. At the time of the study, she had not had experience or coursework in cataloging, indexing, or the organization of information.

Participant 4 is in her mid-20s and she, too, is making a career change. Her undergraduate degree was in theatre, and, before beginning the MLIS program at the University of Pittsburgh, she had been working for a large arts organization in another city. She had just begun the program at the time of the study, and she had no work experience in libraries. Her primary professional interest is in children's services in public libraries. At the time of the study, she had not had experience or coursework in cataloging, indexing, or the organization of information.

Participant 5 is in his early 40s and is making a career change. His undergraduate degree was in history, and he had worked in public relations and retail. He had just begun the archives track in the MLIS program at the University of Pittsburgh at the time of the study. Participant 5 had had some work experience in special collections at a local university archives. He had not had experience or coursework in cataloging, indexing, or the organization of information. This participant was very comfortable in performing the tasks in the study; he was the only participant

to take off his shoes and put his feet up on the desk. He speaks very quickly and has a tendency to mumble, but his pace slowed considerably when he had to read aloud.

Participant 6 is in her mid-30s and is making a career change. She has a B.A. in liberal arts, and she had been working in customer services for several years. She had just begun the MLIS program at the University of Pittsburgh at the time of the study, and she had not had any library work experience. Her primary professional interest is in archives. At the time of the study she had not had experience or coursework in cataloging, indexing, or the organization of information.

Participant 7 is in her mid-20s. She has a B.A. in history, and she has worked in retail and as a legal secretary. She began the MLIS program at the University of Pittsburgh one semester before the beginning of the study. She had just started working for the university library system two weeks before the study began. Her primary professional interest is in public libraries. At the time of the study, she had not had experience or coursework in cataloging, indexing, or the organization of information. She stated that although she had no experience in cataloging, she was a “fairly organized individual who enjoys things to be orderly.” This participant was very quick; she determined aboutness faster than any of the other participants without losing any depth in her interpretations of the material.

Participant 8 is in his early-20s and is just beginning his career in library and information science. He has an undergraduate degree in psychology. He had just begun the MLIS program at the University of Pittsburgh at the time of the study. His primary professional interest is in reference work. At the time of the study, he had not had experience or coursework in cataloging, indexing, or the organization of information. His work experience in libraries had been limited to

volunteer work as a page in his church library. This participant had one of the most logical, linear, hierarchical approaches to analyzing the materials.

Participant 9 is in her late-20s and is beginning her career in library and information science. Her undergraduate degree was in sociology. She had just begun the program at the time of the study, and she had not had work experience in libraries yet. At the time of the study, she had not had experience or coursework in cataloging, indexing, or the organization of information.

Participant 10 is in her mid-20s and is just beginning her career in library and information science. She has an undergraduate degree in anthropology. She had just begun the MLIS program at the University of Pittsburgh at the time of the study. Her primary professional interest is in preservation management. At the time of the study, she had not had experience or coursework in cataloging, indexing, or the organization of information. Her work experience in libraries had been as a library assistant in two libraries.

Participant 11 is in her early-40s and is starting her third career. She has an undergraduate degree in industrial management and computer science. She also has a law degree. She had just begun the MLIS program at the University of Pittsburgh at the time of the study. Her primary professional interest is in academic or law libraries. At the time of the study, she had not had experience or coursework in cataloging, indexing, or the organization of information. Her work experience in libraries has been in a university law school library working at the reference desk.

Participant 12 is in his mid-20s. He has an undergraduate degree in journalism, and has had work experience with a newspaper, in a law office, and in retail. He began the archives track in the MLIS program at the University of Pittsburgh at the time of the study. He had had “minimal” experience in libraries working as a microform reference aide. At the time of the

study, he had not had experience or coursework in cataloging, indexing, or the organization of information. This participant's process was difficult to follow because he provided little information during his think-aloud session. Like Participant 6, he took a very personal, subjective approach to the process, but it was also a very thoughtful approach. During his interview, he showed great insight into the aboutness determination process.

CHAPTER 4.0 ITEM EXAMINATION

Four major categories of components are described in the next chapters and illustrated with examples from the participants' transcripts. The four major categories are: 1) item examination, 2) content examination, 3) processes and operations, and 4) aboutness determination models. Other types of components, particularly those related to the individuals' feelings about the texts and the process, were observed, but in order to provide enough attention to what the researcher considers the most important components of aboutness determination, these will not be included in this research. They will be addressed in further investigations following the dissertation. This chapter addresses item examination, the first of the components of aboutness determination that were identified during the research process.

This first major group of components is related to the examination of the physical item. This is the process some participants referred to as "peeling the onion." Participant 7, when asked how she examined the items, used this metaphor to describe the process. She stated that the examination was like peeling back the skin of an onion. "You start with an outer layer, the cover, and peel that back and move to the core of the onion." Participant 12 used the same imagery when he was asked about the process. "Peeling away the layers of an onion" is an apt metaphor for the examination of the physical item.

This group of components has been subdivided into three categories of concepts: bibliographic features, visual features, and examination strategies. Each of these categories is

addressed in turn. Each component is described in this chapter, its usage or non-usage is detailed, and examples from the transcripts are used to illustrate its place in the process of determining aboutness.

4.1 BIBLIOGRAPHIC FEATURES

The bibliographic features addressed in this section contain both textual features and publishing conventions because, at times, it can be difficult to separate the two. The bibliographic features are described in the order in which they appear in most published materials: this section begins with the spine and the cover and closes with a look at the end features. While the research in this section largely serves to confirm the assumptions made in the LIS literature about the types of bibliographic features readers are likely to find useful in determining aboutness, a few surprising results are discussed as well.

4.1.1 Spine

The participants in this study rarely used the spine in their aboutness determination processes. Only one out of twelve participants paid attention to the spines of all three items. Participant 5 stated:

The vast majority of books I see, I see the spine first. So I guess that is really where I would start. That would tell me an author name and at least part of the title and who published the book. Then, I would go from there to the cover.

He was the only participant to purposely look at the spines. Other participants looked at the spines only when there was no information on the item's cover. Both the covers of *We've Got*

Issues and *The Crazy Makers* contained titles, subtitles, and the authors' names. *The Death of Satan*, however, had only a blank grey cover with the title proper written on the spine; the subtitle was not included there. *Folklore and the Sea* had only a blank blue cover with the title proper written on the spine. When beginning their examinations of *The Death of Satan* (or *Folklore and the Sea*), seven additional participants looked at the spine for that item, but did not do so with either of the other two books. In this study, most participants did not seriously consider the spine unless the title and the author information were not available on the front cover of the item.

4.1.2 Title and Subtitle

The title and subtitle are key features in the determination of aboutness. Despite the presence of a title page in each item, the majority of participants relied on the cover for obtaining the title of the work. This might have been problematic if the cover titles had differed from the information on the title pages, which was not the case for any of the items used in the study. For the first and third items, the spine titles were somewhat different from the title as it appeared on the cover. The publisher only placed the title proper of each book on its spine. For *The Crazy Makers*, the spine title contained the title proper and a variant form of the subtitle. Instead of *How the Food Industry is Destroying Our Brains and Harming Our Children*, the spine subtitle was abbreviated to: *How the Food Industry is Destroying Us*. Only Participant 5, the participant who deliberately examined the spines of all three items, encountered the varying subtitle. He read the spine title aloud, but did not appear to notice that there was a difference in the subtitle, even when he viewed the title page of *The Crazy Makers*.

Eleven of the participants acknowledged that the title of the book was particularly helpful in understanding the nature of the work. In many cases, they felt they could assume that the title would be a brief statement explaining the premise or subject of a book. Participant 3, when asked what she did in her conceptual analysis process, stated, “I think looking at each book, taking the title into account at first. It gives you a little hint of what the book will be about.” Her first impression of *The Crazy Makers* came from the title and the cover. She stated:

This is obviously another person with an agenda. My husband is big into these books, where it's *How Disney is Destroying America*.... I am just looking at that and thinking I don't even need to open the book to know.

From the title and cover, she felt able to make assumptions about the content of the item, and to make associations between this item and others of a similar nature, and eventually to lump them together into an ad hoc category: “my husband's favorite corporate conspiracy books,” or something of a similar nature. Her first assumption of aboutness, derived from the title and visual presentation of the item, was created without opening the book's cover.

Participant 7 provided an example of the importance of the title in conveying the author's approach to the subject and/or point of view. “From the title it sounds like this is going to lambaste ... the food industry.” In some cases, the title can help provide some context for the book. Participant 8 used the title to get a sense of the discipline in which *The Death of Satan* might fall: “Just from the title and subtitle, I would assume the book is about religion or philosophy, something in there.” Participant 8 also stated that the title and subtitle were valuable for beginning to establish his first assumptions of the item's aboutness.

I remember with *The Crazy Makers* I didn't know from the main title what it was about, but from the subtitle, you get a good idea of what it is about. So you get the author's slant on the aboutness from that subtitle. I think my aboutness reflects some of that. It does give me a clue that it is about food and how it's harming us.

Participant 10 believes that in some situations, the title and subtitle are enough to provide a fairly good understanding of what the item is about. “With this one, *The Crazy Makers*, it was definitely the title. I didn’t need to go further than that, and I could have had a paragraph written on what I thought it was about.” This approach, of course, could be dangerous in other circumstances when the meanings of the title and subtitle are not self-evident.

Other participants, and sometimes the same participants, found some titles and subtitles misleading, unhelpful, or opaque. The title of the first item caused some participants to make incorrect assumptions about its contents. Some participants, such as Participant 4, found the title confusing, misleading, or non-informative: “*We’ve Got Issues: The Get Real, No B.S., Guilt-free Guide to What Really Matters*. I don’t know what that means.” Participant 9 simply found the title “really vague.” She stated, “It could be about a lot of things.” Others were misled by the title into thinking the book was of an altogether different type or genre. Participant 7 stated:

From looking at the title, it sounds like some sort of self-help book on maybe how to not stress or how to get to what is important in your life. There are all these symbols on the cover that look stressful....

Similarly, Participant 11 stated, “I am going to start with the title: *We’ve Got Issues: The Get Real, No B.S., Guilt-free Guide to What Really Matters* by Meredith Bagby. Based on that title, I am thinking this is some kind of self-help book.” Participant 7 also found the title of the third item to be confusing.

The Death of Satan—I am thinking it might be a novel. It could possibly be some sort of biblical book, some sort of treatise on Satan. I am assuming it’s a novel because the title is very eye-catching. It’s possibly a mystery.

Participant 12 thought:

We’ve Got Issues could be a “don’t sweat the small stuff” kind of self-affirmation thing. Or it could have been an ironic, new age, witty exploration of breaking taboos. I really didn’t have an idea that the issues were going to be the issues of a

lobbyist. I didn't know it was going to be so overtly political. That didn't happen until I started reading the introduction.

Other participants made sure they were not relying solely on the title for their aboutness assumptions, feeling that the title could possibly be misleading. Participant 5, after looking at the title of a work, stated that he “wanted to get into the book, because sometimes ... what I perceive the titles [to] mean isn't really what the book is going to be about.” Participant 8 also found the subtitle of *We've Got Issues* to be unclear. He stated:

The subtitle, *The Get Real, No B.S., Guilt-free Guide to What Really Matters*, implies that the author knows, or wants us to think that she knows, what she's talking about. It's still really vague.... The subtitle wasn't any help at all. What really matters about what? I had to get in and look at the chapter headings and saw it was all political stuff. Then, it is what political issues really matter.

After completing his examination of the second item, he stated, “*The Crazy Makers*—the title still doesn't make sense to me.”

Depending on the book and the analyst, a title might be considered to be clear and concise or very confusing and vague. While the title and subtitle are good places to begin the analysis, one must be cautious about accepting the title at face value. Lakoff's *Women, Fire, and Dangerous Things*²⁵⁰ is an example of a title proper that may confuse or obfuscate. One can never rely solely on the title to provide the aboutness data; a full examination of the item will always be helpful, even if it is only to reinforce ideas created after looking at the title.

4.1.3 Author

Eight participants in this study mentioned the authors' names in the beginning of their examinations. Little information was gleaned from this as none of the participants recognized the

²⁵⁰ George Lakoff, *Women, Fire, and Dangerous Things: What Categories Reveal About the Mind*. (Chicago, Ill.: University of Chicago Press, 1986).

authors. Some, like Participant 5, acknowledged this stating, “I am not familiar with the author or the publishing house;” most, however, did not comment on this at all. Three participants did note the gender of each author. Participant 9 stated that *The Crazy Makers* was “another book by a woman.” Participant 11 noted that for *The Death of Satan*, “this time we have a male author.” When she began to examine it, Participant 6 found that she had made an assumption that the author of *Folklore and the Sea* was a man. She realized that this was ridiculous because there was absolutely no reason for doing so; she had yet to examine the title page with the author’s full name on it.

It is interesting because I am assuming automatically that this person is a man, even though I have only seen a last name: Beck. It’s interesting how things like that come up—like only men can know about folklore and pirates.

She then laughed.

In this study, the author’s name provided little information to the participants, but it does seem to be a logical piece of data to collect during these examinations. In other cases, it may provide some context for the item, if either the author is recognized or some additional identifying information is found on the item. Four participants, however, never mentioned the authors at all during their aboutness determination processes.

4.1.4 Back Cover and Book Jackets

In this study, the researcher blacked out the information on the back covers of the two paperback items and removed the book jackets from the two hardback books used in the study. This was done so that the participants could not rely on the publisher’s summary often found on the back covers or on the jackets of books. Author photographs on the first two items were not obscured, nor were barcodes or cover designer information. Despite being told that the back cover

summaries were blacked out, eleven of the participants attempted to look at the back cover for at least one of the items. All indicated that they thought this source of information would have been helpful in determining what the items are about, because back covers are especially helpful when browsing in a bookstore to find something to read.

4.1.5 Dedication and Acknowledgments

Of the three items, only *The Crazy Makers* contains a dedication. All three items contain acknowledgements. Four participants read the dedication in *The Crazy Makers*. No other participants mentioned the dedication at all. The same four participants, plus one other, read the acknowledgments in some of the items. Only one participant looked at the acknowledgments in each item. Three participants looked at the acknowledgments in *The Crazy Makers* only, and another looked at the acknowledgments in *The Crazy Makers* and *We've Got Issues*.

Of those who examined them, some participants found helpful information in the acknowledgments, but most made statements indicating that the dedication and acknowledgments were unnecessary features to examine. This attitude is best summed up by Participant 1 who stated: "Acknowledgments – who cares?" Some participants, however, used the acknowledgments to provide some context for the item. Participant 3 remembered in her examination that the author was concerned about children. She stated, "I think she has her own kids, she mentions them in the acknowledgments. She's worried about her kids." It helped her to understand the context of why the author wrote the book. Participant 8 deemed at least some of the content in the acknowledgement to be relevant to his interpretation of the author's intentions:

I just remembered that I glimpsed something at the end of the acknowledgments.
"Most of all to my Heavenly Father who designed the most wonderful food,

perfectly suited to nourishing our brains and our spirits.” Perhaps this book is suggesting something along the lines of organic foods.

Other participants saw only an author thanking friends and family for support. Participant 11 stated, “I am skimming through the acknowledgments. There’s not much in the acknowledgments.” Unlike Participants 3, 7, and 8, she did not find anything she considered helpful.

Participant 7 explained why she was interested in reading the acknowledgments: “I am going to go through the acknowledgments [in *We’ve Got Issues*]. I will skim through because she will probably say thank you to a certain type of person or people.” Although she did not find the acknowledgements in *We’ve Got Issues* that useful, when Participant 7 reached *The Crazy Makers*, both the acknowledgments and the dedication were extremely helpful in determining aboutness.

I am going through the acknowledgments to see if she has thanked anyone in particular. She thanks her children, her husband, and a teacher. “Thank you Nature’s Life for providing the breakfast drink and flax oil for the project. I appreciate your support, and the kids benefited from this great nutrition.” So, she’s going to talk about nutrition in the book.

She’s thanking some doctors. “Your knowledge of nutrition and medicine was invaluable.” Thanked some other people. Then, she thanks God, “who designed the most wonderful food, perfectly suited to nourishing our brains and our spirits.” From that it seems like she’s going to talk about eating a lot more natural food, not the processed foods; maybe raw foods; things that are not necessarily manufactured, but that the earth produces.

Then she’s talking about mental troubles. She says, “To the mental health practitioners and educators, frightened at the increase in mental disorders, searching in the wrong places for the answers.” It sounds like she’s going to talk about the effects of what she considers poor nutrition on mental health. Most of these problems are going to result from poor nutrition.

From the dedication and acknowledgments alone, Participant 7 developed a well-formulated understanding of the aboutness of *The Crazy Makers*. From these two “minor” bibliographic

features, she determined what the item was about: nutrition, “eating a lot more natural food, not the processed foods,” and “mental troubles.” Before she had even reached the table of contents, she had synthesized these concepts into a workable assumption of the item’s macro-level aboutness.

While some participants found valuable information in the acknowledgments and dedication, most ignored these features completely. If one chooses to look, valuable information may be found, as was the case for Participant 7. Due to the variance in content from item to item, these sections are not consistently good sources of useful information, but they have the potential to provide rich sources of data on an item’s aboutness.

4.1.6 Also By the Author

The Crazy Makers and *The Death of Satan* both contain a page, found in each book’s front matter, with a list of the titles of other books written or edited by the authors. *We’ve Got Issues* did not contain this page. Five of the participants examined this feature. Participant 8 felt that he might gain some insight into *The Crazy Makers* by looking at the title of the other book written by Carol Simontacchi.

The author has written another book called *Your Fat is Not Your Fault*. It suggests that the author may be trying to lay some blame that Americans are unhealthy because we don’t have any choice about what to eat, so we are condemned to eating things that are horribly unhealthy.

While he was able to make a connection between a past work and the current book, no other participant expressed anything other than mild curiosity about the other titles. Not one stated that these other titles were of any help in the process. Participant 7 summed up the more common attitude about this feature when she said:

Another book by her is called *Your Fat is Not Your Fault*. I am not quite sure what that is, but that doesn't really help me figure out what this book will be about.

Seven participants paid no attention to this feature whatsoever.

4.1.7 Publication Information

Aside from an interest in the dates of publication, most participants did not look at the publication information for any of the items. Participant 5 was an exception; he looked at the publication information in each book. Participant 5, when examining *The Crazy Makers*, stated:

I am not really familiar with Tarcher and Putnam.... I know occasionally books do include this panel on the back or a couple sheets about other books they have done or other authors that they publish. That gives me some sort of information about the book—at least about the publisher and/or about the authors they publish.

With all three items, Participant 5 looked at the publication information; in all three cases, this proved unhelpful to him because he was not familiar with the publishing companies. Participant 6 was the only other participant to examine the publication information. “I unconsciously look at publishers. I don't know that much about them, but I know enough of the names to know who is more scholarly or literary.” She noted the publishers of the items, but did not find the information helpful.

Eleven participants were interested in knowing the dates of publication. It provided some context for the items. Each participant sought out the publication or copyright date in order to verify the age of the work or the currency of the content. Concerns over currency were focused solely on *We've Got Issues*. Participant 1, when examining Book One, stated, “I wish I knew when this was written too. 2000, well, copyrighted in 2000.” She stated that since *We've Got Issues* was four years old, it should be updated to reflect the concerns of 2004 and the current

presidential election. She saw that it was “out of step.” Participant 2, too, found *We’ve Got Issues* to be dated, but mentioned this topic infrequently. Participant 3 was concerned about currency of the ideas. While examining the first item, she stated, “This is probably written right before the 2000 election.” She noticed that the author “makes a bunch of references to the 2000 election and the differences between the candidates.” She wondered how soon before the election had the item been published and whether the book was an attempt to sway members of Generation X toward a certain political party. Her interest went beyond just curiosity about the publication date; she was interested in the currency of the content, because it provided context for understanding the entire item. She wanted to know how current the item was in order to understand the purpose and the potential uses of the item. Participant 3 also noted that the currency of some items can be determined just from the look or the style of the cover; it may not provide information helpful in determining aboutness, but the appearance may provide an estimate of the age of the item. She “didn’t check the publishing dates.” She stated: “Looking at the topics, I could tell, these are things that are being talked about right now.”

Participant 6 was also very interested in the currency of *We’ve Got Issues*, seemingly because she hoped to dismiss the work altogether. She began by questioning the currency of the language being used by the author. Shortly thereafter, she encountered some more concepts, terms, and names, which she tried to place into the context of the events in recent history.

Then she uses the word “slacker,” which I think I am hesitating about this, because it has a conversational tone and the use of the so-called vernacular that dates it quite a bit. “Slacker”—I don’t know if the kids are talking like that now.... This must be from—I don’t know when the Monica Lewinsky thing happened. Here’s “Gen X” on page 17 on the same page with a Monica Lewinsky reference and “slacker” reference a few pages ago, which dates it around 1996. I am going to look. No! It’s 2000. That’s weird. I don’t think Gen X exists anymore; we are all married and have babies.

The text was published more recently than she expected, but still she found some of the content very dated: “This third chapter is talking about the budget and the so-called surplus, which is long gone now. It is very focused on the 2000 election.” This understanding of the currency of the material and the time period of the subject matter were reflected in her aboutness statement, in which she included the following statements: “the grounding of the text is the 2000 election year. It is rather date and time specific in that respect.” Participant 8, like the others, identified the 2000 election as the time period for *We’ve Got Issues*.

Participant 9 stated that the item “is pretty recent, it is just from 2000. They are mentioning Gary Condit.” She stated during the interview:

I was a little concerned about the currency of ideas, especially in *We’ve Got Issues*, because it is politics and that changes quickly. *The Crazy Makers* was timeless and *The Death of Satan* was historical in nature.

Based on the cover art, some participants made assumptions about the ages of the items before viewing the actual dates. Participant 11, like Participant 3, considered the design of the item as being helpful in determining its age and its currency. She was surprised to find that *We’ve Got Issues* was only four years old. Participant 11 originally assumed *We’ve Got Issues* was published in the 1960s because of its retro cover. Once she encountered the publication date and the content, however, she realized the item was more current than she thought, since it contains information about the political scene in the late 1990s. “This book is newer than I thought it was; it looks like it’s from the 1960s from the discoloration.” Participant 12, while aware that *We’ve Got Issues* was not current, thought the book was still relevant. When he encountered the chapter that deals with terrorism, he stated, “It is a few years old, interestingly, written before the terrorist attacks in New York and Washington. I guess it’s always been an issue.” This demonstrated another way that currency helps the participants to understand the item.

Understanding that it was written in a pre-9/11 world provides an understanding of how the book can/must be read and what might be missing or inadequately discussed. That context puts boundaries around the aboutness of the item.

From the participants' experiences it appears that the currency of the content is not a concern with all types of items. Their examinations intimated that currency of ideas is most important with items that could be categorized as *current events*. An item that discusses political issues of concern should probably indicate whether these are political issues from 2000 or from 1964. In this case, an understanding of currency provided important context for determining if an item is of any use to the patron and what the item is about. Its currency—its context—plays a large role in understanding the parameters of the item's aboutness.

4.1.8 Table of Contents and Chapter Titles

The table of contents, which contains the title of each chapter, was considered a primary source of aboutness data by all of the participants. All twelve participants used this bibliographic feature in their aboutness determination processes. If the wording of the chapter titles is descriptive and clear, the table of contents can provide a subject analyst with each chapter's main theme(s) in a single location. Participant 2 stated, "I look at the contents because I really think this is where the true summary of the book is.... It is essentially, the chapter headings. And it is shown to you all on one page." When asked about using the bibliographic features found in the front of the items, she stated, "I really skipped over most of them to get to the table of contents."

Many of the participants used the table of contents to develop their first guesses regarding the item-in-question's aboutness. Participant 8 stated, "At the beginning when I was looking at the titles and tables of contents ... I made more assumptions." For *We've Got Issues*, he used the

table of contents to understand the meaning of the subtitle (*The Get Real, No B.S., Guilt-free Guide to What Really Matters*), which to that point had made no sense to him. “It’s still really vague. What matters about what?” When he reached the table of contents, he stated:

A lot of things sound like political issues, political commentary. So, I would assume that the title refers to political issues. The subtitle is talking about political matters or the political issues that really matter.

Others used the table of contents to refine or readjust their cover-based and title-based assumptions. Participant 4, while looking at the table of contents in *The Crazy Makers*, was able to refine her initial idea of its aboutness.

I will start by reading the table of contents and going from there: Our Food and Suffering, Building the Infant Brain, Nourishing the Baby’s Brain, Feeding Your Child’s Brain, Feeding the Adolescent Brain, Feeding the Adult Brain, A Case for Optimism, A Recipe and Menu Primer. From the table of contents, I am guessing that they are talking about how your brain works as you are growing, from birth to adulthood, and maybe the effects that food will have on that.

This was an improvement on her initial, cover-based assumption that the book was going to be about the obesity epidemic in America, which was not featured in *The Crazy Makers* at all. Some participants used the table of contents to develop an idea of how the writing was structured.

While examining *The Death of Satan*, Participant 10 stated:

I am looking at the table of contents. It’s broken into two different parts: the first is The Age of Belief and the second is called Modern Times. So, it looks like it is going to be a historical perspective and then looking into the present and the future.

Participant 12 conveyed a similar understanding: “So, it’s a history, roughly half and half with a contemporary overview.” Participant 7, based on this division of chapters into two parts, speculated, “Part One is where people feared the devil and Part Two is now when people don’t.”

Some participants did not find the tables of contents to be helpful. To some participants, the chapter titles lacked clarity; others had trouble connecting the discrete titles into an overview

of the item. Participant 10 found the table of contents in *We've Got Issues* to be unhelpful because, "they look like they are all over the place. They are each on a very different topic." She stated:

I guess my impressions are that it's looking at America specifically and what kind of issues are going on in America. It looks like it is reaching all over the place; a little bit of politics, a little bit of children, as you go on in life to "The Graduate."

Participant 2 thought the table of contents in *We've Got Issues* was unhelpful because "some of the [chapter titles] were a little misleading." Participant 3 similarly stated that the table of contents in *The Death of Satan* "wasn't helpful at all because the titles of the chapters are not descriptive." Participant 11 stated, "It doesn't look like I am going to get a lot of information from the table of contents because they are all cute titles." She was referring specifically to *We've Got Issues*; her experience with that item influenced her approach to the other two books. At the end of the examination, she wondered if she spent too little time examining the table of contents in the other books.

I knew right away that the table of contents wasn't going to work for *We've Got Issues*, so perhaps I skipped over the table of contents too quickly in *The Death of Satan*.

Participant 4 had a similar complaint about *We've Got Issues*.

I am looking at all the different chapter titles, which aren't really telling me a whole lot. They are using cutesy titles for the chapters, which don't tell me anything.

Participant 5 also found some of the chapter titles in *We've Got Issues* to be "a little obscure ... The Graduate? I don't know what that's about." He, however, found the chapter titles in *The Death of Satan* to be quite helpful; so much so, that he decided not to look at the actual chapters. "That is why I didn't bother to go looking into the chapters. They seemed to be very clear and it seemed to be a chronological approach to evil, and how it's transforming over the ages." This

choice did not serve him well because he struggled greatly with determining the aboutness of *The Death of Satan*.

Despite their opinions on the helpfulness of the chapter titles, most participants used the tables of contents. Not all of the participants examined the tables of contents in all three items, however. Participant 8 examined the table of contents in two of the three items, skipping over the table of contents in *The Crazy Makers*. He gave no particular reason for this. Participant 6 examined only one item's table of contents, the one in *Folklore and the Sea*. The remaining ten participants looked at all three tables of contents. Only Participant 6 stated that she purposely avoided this bibliographic feature; she stated that she does not consider herself, "a go-through-the-index-and-table-of-contents person." She much preferred to jump into the text. When asked why she did not go through the table of contents, she replied:

I like lists; I do it when I am looking at history books. It is not the first place that I go. I go to the body of the text and skip around in there to see how it is written and see what the tone is and find something that catches my eye. Then, I go to the table of contents or the index and see [how] it is presented.

She only used the table of contents for her examination of *Folklore and the Sea*, stating: "This one I want to go through and look at what the chapters are about, to get a sense of it." She looked at the table of contents for this item because she liked the book and wanted a better sense of what it contained.

While all twelve participants used at least one table of contents, the usefulness of this feature in aboutness determination is ultimately dependent upon the nature of the writing. "Nourishing a Baby's Brain" is a fairly clear and helpful chapter title. Combining it with other chapters such as, "Feeding Your Child's Brain," "Feeding the Adolescent Brain," and "Feeding the Adult Brain" creates some context for the work as a whole in terms of its content and its approach to the material. This can be very valuable information. A chapter title like "Poor Fred,"

however, may not be quite as clear or helpful. The judgment of how useful the table of contents is, however, will always be dependent on the nature of the author's writing and the clarity of the author's chapter titles.

4.1.9 Introductory and Concluding Materials

The introductions and conclusions were some of the most heavily used of the bibliographic elements in the texts. Introductory material was used to varying degrees by eleven of the participants as a means of gathering key aboutness data; all twelve participants used at least one of the conclusions to do the same. Eight participants read or skimmed the introductions in all three books; seven participants skimmed the conclusions in all three books. Participant 1 was the only participant who did not use the introductions at all. At the beginning of her session, she decided she would not read or skim any of the introductions. For *We've Got Issues*, she stated, "Introduction. Nope, I will make up my own mind." She did not wish to be influenced by the authors' descriptions of the aboutness. When she reached its conclusion, she stated "I don't care what the last chapter is because I know what this book is about." For other items, however, she looked at the conclusions. This strategy of ignoring the introductory material, however, did not serve her well in *The Death of Satan*, where she struggled to find the aboutness. Participant 4 did not skim the conclusions in *We've Got Issues* or *The Death of Satan*. She failed to notice the conclusion in the first item. With the third book, she stopped her analysis long before reaching the final chapter because she was having a difficult time analyzing the material. Participant 8 skimmed the introductions, but did not spend much time with them. He stated:

It might be force of habit, but in my experience, there isn't as much useful content information about the book itself in the introduction. A lot of times, the introduction will give part of the story about how the author was able to write the

book because of some idea or experience. It helps you understand the author's biases or the author's purpose, but if you want to find the chunks of the argument, you are going to have to go to the content. I find, especially in *We've Got Issues* and *The Crazy Makers*, the first actual chapter gives a strong outline of what the book is about, whereas the introduction just gives some background and it is trying to convince you to read the book.

Participant 9 did not read the conclusions in either of the first two items; she did not give a reason why. Participant 10 did not read the conclusion in *We've Got Issues*. When asked why, she replied, "I am not really sure why." Participant 11 skipped the introduction when examining *The Crazy Makers* to go straight into chapter one. "So, this book is a little bit easier than the last one. I think this one is pretty straightforward. I am just going to read chapter one." Participant 12 skipped the introduction in *The Crazy Makers* and the conclusion in *We've Got Issues*, but did not say why.

Most of the participants found the introductions to be important sources of aboutness data. When asked why they depended on the introductions, they gave a variety of answers, but all responses focused on a single, basic idea. That idea is best summarized by Participant 3, who stated:

The introduction and conclusion are usually the most helpful.... If I could look at nothing else, I would go right to the introduction for all three of them to get a good overview. That's really important. I want to know what the author thought the book was about. That is where they will lay it out. Everything else in the middle is going to validate the argument and give me a better sense of what the book is about. All it is supporting is whatever argument is being laid out in the beginning of the book.

Participant 2 stated: "Reading the introduction to the chapters gave you a good idea what it was going to be about. So I was able to quickly establish what it was going to be about." Ironically, she spent little time in such a rich source of data. She skimmed the introductions quickly and read only the last paragraphs, stating, "I am skimming over because normally I think you can sum up an introduction by the last paragraph. [*The Crazy Makers*] looks at Congress and cells."

Her statement, however, shows how misguided that approach can be. Later, she admitted that she should have spent more time in the introduction for *The Death of Satan*. “If I had read the introduction, it probably would have helped with *The Death of Satan*, but with the others just reading the last paragraph of the introduction tended to help.” Actually, that is not the case. The introduction to *The Crazy Makers* covers much more than just “Congress and cells.” Had she read or skimmed more of the introduction, she might have included the concepts of processed foods and their effects on brain health in her aboutness statement. Participant 3 stated that she found “the introduction and conclusion are usually the most helpful [features].” Participant 5 described the importance of the introduction:

Ages ago, I was taught basically I should read the introduction. And so, I am going to do that. Literally, I am just going to read the introduction to myself... The introduction in *The Death of Satan* also gave much more of a sense of what the book was going to be about and really laid out what I thought was the author’s plan.

Participant 6 used the introduction not only to learn about the content of the chapters, but also to get a sense of the author’s point of view. “This is going to take me back to the introduction, so I can get an idea of where he is coming from; what the information and perspective he is trying to present are.” In *We’ve Got Issues*, she found a summarizing statement in the afterword that reinforced her understanding of the overall aboutness. So, she found that feature to be helpful too. Participant 7 stated that the reason she favors introductions and conclusions is because “those are very general.” She stated, “They are 2-20 pages about the text of the book, summing up, introducing and ending thoughts. That’s a good way to get a general overview of the books.” She was looking for specific kinds of information in the introduction.

I was looking for sentences that said things like, “This book is about...” or “I wrote this book because...” or “The purpose of this book...” I looked for very clear, definite statements like that from the author. I looked for those in the introduction. In the conclusion, I looked for more general, sweeping statements.

Participant 9 stated that she used the introductions because, “those usually give you an overview of what the book is about.” She stated that is what she looked at first during her examinations.

This was not true for *We’ve Got Issues*, however, in which she looked at the introduction last.

When discussing her approach to the aboutness determination process, Participant 10 stated:

I will skip through to the end of the introduction and hope that he maybe states his exact point someplace.... I think sometimes you can just read a little of the introduction and the last, concluding paragraphs of certain things and get a lot of information without reading the book.... I expected them to start by telling me what they are talking about and finish by telling me what I should have gotten out of it.

Participant 12 found that when he started examining *The Death of Satan*, he needed to spend more time “immersing” himself in the introduction because of the more complex language and argument. Instead of simply skimming the introduction, he found he needed to read some passages.

The Death of Satan, it [has a] much richer feel and complements the impression I got from the cover. With something this rich, skipping around will probably get you lost in the more complex argument—not able to figure out where you are. So, the introduction is the place to start.

Despite its popularity, some participants had difficulty finding the information they wanted or needed from the introduction, especially from the introduction in *The Death of Satan*. Participant 4 stated, “I am just paging through. I am not really sure that the introduction is telling me what I need to know.” Later, she explained her difficulty with *The Death of Satan*:

The introduction was long and it was talking about what I believe the book was going to be about, but it seemed to me almost a chapter in itself. There wasn’t any other information that stood out.... I think if I actually sat down and read the whole introduction, and [were] able to process that a little more, I might be better able to explain it.

When she examined the introduction to Book Two, Participant 6 wanted it to tell her about the credentials of the author of *The Crazy Makers*. She felt frustrated that she could not find this

information until nearly the end of her examination. She did, however, learn more about the origins of the book.

The introduction is the background behind [the writing of the book]. She is not presenting her credentials though. She brings up nutritionists and how she first walked into a health food store and changed her life through learning about nutrition and food.

The introduction provides a large amount of information useful in determining aboutness. It is highly important in the aboutness determination process, although Participant 1 did manage to create workable aboutness statements for the first two items without reading or skimming the introductions. Most participants, however, relied heavily on the introductions to find key data in developing their early assumptions of aboutness. The participants' experiences would also seem to suggest that the more scholarly the writing is, the more complex and/or more abstract the concepts and arguments are, the more time will be needed to examine the introduction.

Conclusions, when present, can also be very rich sources of aboutness data. From the participants' reports, one could infer that conclusions are particularly helpful in tying together all of the elements observed during the entire aboutness determination process into a cohesive whole. It summarizes the content of the book and provides an opportunity for the analysts to compare their final thoughts on the item with those of its author. It provides some indication of whether the participants' assumptions of aboutness were on the right track. Participant 11 stated, "I think I will go to the last chapter to see what the conclusions are. Maybe that will help me make sure that's the right assessment of the book." Introductions and conclusions are especially important when using the two-ends approach to examining the item. They are, in fact, the foundations of this approach. The two-ends approach, as the name suggests, is an examination strategy where the participants concentrate most of their energy on the features found in the very beginning and at the end of the work. It is discussed further in Section 4.3.2.

4.1.10 Opening Quotes and Chapter Synopses

Eleven participants used opening quotes or chapter synopses when they were available. Opening quotations were found in *The Crazy Makers* on separate chapter title pages. Chapter synopses were provided in *We've Got Issues* on separate chapter title pages. *The Death of Satan* did not have either of these features. Participants stated that they noticed the opening quotes and chapter blurbs primarily because they stood out from the rest of the text. They quickly found that they could determine the aboutness of the individual chapters in *We've Got Issues* from chapter blurbs, but the opening quotes in *The Crazy Makers* were less helpful. About *We've Got Issues*, Participant 3 stated:

It had those little blurbs in front of each chapter, which were great because then you don't read the chapter. You go right to the page, you look at the blurb and it tells you what the chapter is about.

Participant 5 found that the blurbs at the beginning of the chapters, “explained the chapter titles basically. They were almost like a subtitle.” The use of these features was far more prominent among the participants who used a linear (front-to-back) approach to analyzing the items. Those using either a two-ends or a non-linear approach generally focused on the introductions and conclusions and did not encounter these features in the middle of the item. There were, however, one or two participants using a two-ends or a non-linear approach who, after developing an understanding of the aboutness of the item, looked at some of the middle chapters and read their synopses to reinforce their already-established understandings of the aboutness.

Participant 4 relied heavily on the chapter title pages in her examinations of the first two items. She used the chapter synopses quite successfully when analyzing *We've Got Issues*: “It had a blurb on the chapter title page. It told you what the chapter was going to be about.” When she moved onto *The Crazy Makers* though, she had some difficulty. While it does contain a

separate title page for each chapter, these pages in Book Two do not have chapter synopses or abstracts. What they contain instead are opening quotes by other authors that are related to the content of the chapters, but do not directly refer to or preview the content. Participant 4 made the assumption that the opening quotes in *The Crazy Makers* performed the same functions as the chapter synopses in *We've Got Issues*. This assumption led her astray. After going through half of the second item, she had to stop, regroup, adjust her process, and start over. "I am not going to keep reading these. They seem to be quotes that aren't really helping me...."

4.1.11 Section Headings

All twelve participants used the section headings within chapters during their aboutness determination processes, though they approached them in different ways. Some participants did not depend heavily on the content in the section headings, but instead used them for navigation through the text. Participant 3 used the section headings in this way.

I glanced at the section headings ... the section headings are helpful if you know you read something, and you want to refer back to the book. For categorizing the books, I don't think I tend to glance at those as much. I was aware that they were there, but if I looked at them, I also looked at the information in the paragraph that followed.

Other participants relied heavily on use of the section headings to determine the aboutness of the items. For the most part, these were the participants using strictly linear text examination processes, i.e., Participants 1, 2, 4, 8, and 10. These participants used the section headings primarily to reinforce their assumptions of aboutness. Section headings often represented concepts found in an item's title or introduction, or concepts that were a part of the participant's initial assumption of the item's aboutness, which made them a particularly valuable resource. The participants trusted the section headings to summarize the aboutness of individual chapters.

Participant 2 greatly relied on the section headings in the first and second books. She stated: “You can get away with not reading the whole book because once you look at the headings you get a good idea of what [the author is] talking about.” With *The Death of Satan*, which contained no section headings, she had some difficulty.

I tried to read the first sentence of the section, but that didn't really sum up the chapter at all for me. And I tried to read the last sentence of the section or chapter. That really didn't sum up anything at all. So, for me, that was much harder because if I had a section heading, it would have summed up the section for me.

Participant 4, in response to difficulties she encountered using the opening quotes in Book Two, adapted her examination strategy to include the section headings. “I see that some chapters have subheadings. I am going back to chapter one and looking at the subheadings.” Her new approach for *The Crazy Makers* was primarily built around reading the chapter titles and the chapters' section headings. Her account of Chapter 4 of Book Two was a simple litany of its section headings.

Chapter 4 Feeding Your Child's Brain: Beyond the Developing Brain, Growing a Child's Brain, What Goes Into a Child's Food, Pesticides, MSG is a Natural Food, Real Kids and Fake Foods, The High-Sugar, Low-Nutrition Diet, Following Sugar Through the Body, Minerals and Brain Health, Magnesium, Sodium, Zinc, Iron, Food Additives, Allergens in the Diet, Nutrition Primer for Young Children, Nutritional Guidelines for Young Children, another Conclusion.

When asked to describe her process, she stated, “I paged through the different chapters in each book to see if there was any information under the chapter headings.... I was looking for different bolded section headings like in *The Crazy Makers* and *We've Got Issues*.” While this strategy had worked well for her in Book Two, she, like Participant 2, found analysis of the less obvious bibliographic structure of *The Death of Satan* to be far more problematic. The third book did not have “sections that said exactly what the chapter was about.” This made her examination and her aboutness determination process much more difficult. “Those sections make it a little easier and

more obvious. They are telling me exactly what the chapter is going to illustrate for me. *The Death of Satan* didn't do that." Participant 6 also found that the book's structure helped her to determine aboutness. She stated, "In a book like *The Crazy Makers* ... I would look at the section titles to see if there were subjects being covered that I found interesting." Participant 7 stated that she too thought that the section headings were helpful.

It definitely helps me. It creates a flow in the book, whereas with *The Death of Satan*, with Sections 1-2-3-4, it seemed a lot more factual and doesn't help at all. Definitely having a title on your subsections helps.

Participant 10 found the section headings to be a great substitute for reading the text. "I think I am just, instead of reading it, going to scan these little section headings throughout the chapter to see what's going on." When asked what stood out to her, she mentioned, among other things, "Section headings—I think that's the author's way of summarizing what the section is about. So, I often use those." Participant 10 found it more difficult to conduct the analysis when only section numbering was present: "It is broken down into sections, but again, it is not very clear as to what is going on in these chapters." Whether they were used to reveal, refine, refute, or reinforce notions of aboutness, each participant found the section headings in the chapters to be of use, and their absence to significantly increase the difficulty of the process.

4.1.12 First and Last Sections in Chapters

Just as a book's introduction and conclusion can provide an overview of the entire book, the participants in this study indicated that the introductory and concluding paragraphs or sections served the same purpose within each chapter. All twelve participants considered the introductory section of a chapter to be a rich source for chapter-level aboutness data. Eleven of twelve

participants considered the concluding section or paragraph also to be helpful. Participant 10 summarized the participants' thoughts on these features.

I am looking at that first paragraph just to get an idea of what the chapter is about.... I am targeting first and last paragraphs to see what is going on there. I don't have time to read the whole book.... I think looking at the opening sections and any closing remarks is a really good way of quickly finding what a book is about.

More participants looked at the conclusions of chapters than at opening sections. No association between the different examination processes and the use of first or last sections is evident in the data. It seems to be a simple matter of preference.

Participant 1 used introductory sections of the chapters, but did not think to look at the concluding sections until she was into the process. Once she read the conclusion of Chapter 2 in *We've Got Issues*, she decided to go back to the conclusion of the first chapter. When asked about how she examined the chapters, Participant 2 stated, "It was pretty easy just to look at the first part of the chapter and move on." She also stated that when she examines a book's introduction, she tends to skim it, and then goes to the last paragraph. "Normally, I think you can sum up an introduction by the last paragraph." As mentioned before, this strategy did not always work well for her, especially when she analyzed *The Crazy Makers*, which was not about "Congress and cells." She needed to examine more of the introduction and the text in order to get a better sense of that item's aboutness. Participant 7 expected the concluding sections of the chapters to be helpful. "I am going to flip to the last paragraph in this chapter to see what she says there. I am hoping she may summarize the point of the chapter." When asked about her process, she mentioned her use of these introductory and concluding sections of the chapters.

I was trying to pick up key points. In the chapters, I would read the first paragraph and the last paragraph. You try to put all those pieces together to discover what the book is about.... I tended to look at the first and last sentences, first and last paragraphs of all parts of the books really, in chapters, introductions, and

conclusions. Those tend to be the most general and the most specific as to the purpose of the book. I tended to look at the first and last sentences of sections. Sometimes I would read the last paragraph of a chapter and move up the page or I would read the first paragraph and move down the page for more information. I tend to skip over the middle in just about everything.

Participants are not just targeting aboutness data when looking at these features. Some are looking for other clues about the nature of the book. Participant 12 stated, “I usually read the first two paragraphs of some things until I get a feel for the tone and cadence. Then I try to skip around a little bit.” Overall, whatever their purpose in looking at the first and last sections of a chapter, the participants did gather helpful chapter-level aboutness data from these locations.

4.1.13 First and Last Sentences

In addition to targeting first and last chapters and first and last sections, each participant sought out first and last sentences in their aboutness determination processes. Most used the first and last sentences in the same way they used the first and last sections and the first and last chapters—as a device to summarize the whole. Participant 1 stated, “First sentences are like the titles of chapters to me. It’s really the introduction’s introduction.” Participant 2 stated, “I looked at first sentences and I looked at last sentences. It was definitely a conscious decision. Most people tend to sum up their ideas in the first sentence and the last sentence.” Participant 5, stated, “I guess I am just going over the first and last sentence for each paragraph.” When asked what he skipped over or ignored, Participant 5 stated, “I would only read one or two sentences. When I am skimming, I am basically reading the first few sentences and the last few sentences of a paragraph.” Participant 6 also stated that she skimmed over first sentences to get an idea of a paragraph’s aboutness. Participant 7 stated that when skimming the items, she “tended to look at first and last sentences, first and last paragraphs of all parts of the books.” Participant 8 used the

first sentences of the sections in Book Three as if they were section headings. Like many of the participants, he explained that his approach to skimming paragraphs was based on his search for specific content and his knowledge of good writing.

In school I learned that the subject sentence of a paragraph is likely to be the beginning. If it is not the beginning, then I will probably skip to the next paragraph, instead of checking the last sentence of the paragraph.

Participant 8, while appreciative of first sentences, does not appear to hold last sentences in such high regard. The other participants did not express this attitude.

4.1.14 End Features

The participants in this study rarely used the bibliographic features found at the ends of the books. These features include indexes, bibliographic references, appendices, and the “About the Author” pages. The researcher fully expected that the participants would use the indexes to help them determine the aboutness of the items, but this was not the case. Participant 3 looked at the index in Book Two, but this was based only on her personal interest in whether the concept *hyperactivity* was included in the index. It was not there, and she did not use the index for anything else. Only Participant 8 incorporated the indexes into his examinations of the books. He found that the indexes were useful sources of data to reinforce his notions of aboutness. He scanned the index in each item to see which concepts, names, or events had the largest index entries.

These are the stars of the book ... so I would assume that those are some of the larger sections of the book and also the things that the author or indexer thought that the readers would care about or that the author thought was important.

When asked if he usually looked at the back-of-the-book indexes in unfamiliar items, he stated:

It was something I hadn't even thought about until I got to the index of *We've Got Issues*. When I got to the index, I thought, this might be interesting. It will show what ideas or words the author or editor or publisher considered to be relevant to the material of the book. So, the things that are mentioned more often would be more important in someone's evaluation.

During the interviews, the researcher asked every participant whether they considered using the indexes in their examinations. Participant 3 stated, "No. I didn't. Now that I am thinking about it, it would have been a good plan. I didn't look back there." But, after considering it further, she stated:

On the other hand, I don't know if that would be any more helpful. Looking at that gives you an idea of the key terms, but you can also do that by flipping directly through the books, seeing what terms are coming up over and over again, what jumps out at you.

Participants 5 and 6 both considered indexes as something to be used to find specific information about topics of interest to them. Without any particular goal in mind, they saw no reason to scan the index. Participant 12 did not look at the index because the index entries lack context; they are "disassociated from" related concepts. "It doesn't tell me what this author thinks."

The bibliographic references found in the items were examined somewhat more frequently than the indexes, but were not used extensively. Participants primarily used them to determine when authors were using references to other works in order to bolster their own arguments. Participant 3 was particularly interested in the bibliography in *The Crazy Makers*. She had expressed doubts about the validity of the author's conclusions, and did not trust the science in the book, so she scanned the bibliographic references to see if the author was citing "legitimate" sources. She did the same thing with the third item and decided that the references used in *The Death of Satan* were more scholarly than those in *The Crazy Makers*.

For some reason, I was not convinced by *The Crazy Makers*, but I was convinced by *The Death of Satan*. If I thought about this logically, I don't know that his references are any better than hers. But, I made the judgment that hers were lousy because of the title of the book and how the book read. I made the judgment that his are okay because of the dense nature of the text.

Participant 6 was also interested in looking at the bibliographic references. But she, like most of the other participants, was only interested in the presence or absence of bibliographic references, not the content of those references. The presence of references was an indication that the item was "somewhat more scholarly," while the absence of bibliographic references indicated that the item was probably an opinion piece whose legitimacy, value, and validity might be questionable. *The Death of Satan*, in particular, benefited from the perception that the presence of references signaled a more academically legitimate or rigorous work. Participant 11 stated about Book Three:

I did see that it was well documented, lots of endnotes. That told me it was a well-researched, scholarly book, which may not be fair, because there were quite a few references in the others.... With *The Death of Satan*, it made me think of it as a scholarly work.

The other participants acknowledged the presence of the bibliographic references, but did not examine them or comment on them in any of the items.

Few participants examined the other features found at the ends of the books. Four participants looked at the "About the Author" page at the end of *The Crazy Makers*. All found it helpful because it stated the author's occupation, and therefore, her qualifications to write the book. The question of her background, occupation, and point of view arose in several examinations of this item. Some participants scanned the appendices found in the ends of all three books. None noted that these were helpful in determining the aboutness of the items, although one participant did mention content from the appendices in her aboutness statement for Book Two.

In general, the participants considered the bibliographic features at the beginning of the books to be far more important than those found at the end. Once they examined the conclusion or the final chapter, most participants went no further in the books. While a “first and last” approach appears to work well for some participants when they examine the content of a text, that approach does not seem to work the same way with the bibliographic features. In considering bibliographic features, most participants found material in the front of the books to be helpful, and end material to be of little use to their investigations.

4.2 VISUAL FEATURES

The visual features addressed in this section include illustrations, charts, and numerous aspects related to the design of the physical items themselves, and also aspects related to the visual presentation of text, such as page layout and typography. It includes discussions of how the look of an item affected some participants’ impressions of the books.

4.2.1 Book Design and Cover Art

The first notable thing about a new book is its cover and the overall physical design. First impressions of an item based on its cover and book design can affect one’s sense of the tone, intellectual level, age, currency, form/genre, and/or the type of content found in the item. The cover art and the overall design of the information package may be the first exposure to the item’s title and author, and these can sometimes provide the analyst with enough information to begin making assumptions concerning the item’s aboutness. Some participants found cover art to

be quite helpful in establishing their first assumptions of aboutness. This was particularly with *The Crazy Makers*, which had a cover illustrated with a repeated pattern of hamburgers. Upon seeing the item's cover design and reading the subtitle, most participants immediately established that the book dealt with issues related to food and nutrition. Some thought it might be about fast food in particular and others assumed it was about obesity, but these ideas were quickly corrected once they began skimming the front matter, the table of contents, and the introduction. All twelve participants made their first assumptions of the aboutness of the first two items from their cover art. The absence of cover art for *The Death of Satan* was also mentioned by each of the participants. While some found the cover of *We've Got Issues* to be misleading, particularly when attempting to gauge the age of the item, others felt they were able to get a sense of the author's tone from the retro design. The cover of an item represents a rich source for developing initial impressions and assumptions, which may or may not prove accurate when the content is examined.

All twelve participants paid some attention to the overall design and cover art of the books they examined. Participant 1 played down the importance of the books' designs in the aboutness determination process, despite making an accurate assumption about the subject of *The Crazy Makers* based solely on its cover. "I feel this is going to be totally about processed food. I could be wrong." She later stated that, "It has to be a pretty striking cover I guess for me to make [an assumption of aboutness]." Others, however, felt that their initial impressions from their first encounters with the overall packaging and "the look" of the books certainly played a role in the process. Whether those impressions were actually helpful or not was sometimes in question.

Participant 3 was particularly affected by visual presentation. Her opening remarks, upon receiving *We've Got Issues*, were: "Nice, trendy retro cover here, which either means it's really old or ... actually looking at it, it is in pretty good shape. It's probably new and taking advantage of the retro style." From there, she read the title and the author's name, and then stated, "This is going to be flip and trendy I'm sure." That initial viewing of the cover allowed her to make two important assumptions about the item: about the age of the book and the tone of the writing. While her initial impressions of Book One were correct, the assumptions she made about Book Two was not. "Just looking at it, I can imagine it's going to have information about genetically-altered crops, Mad Cow disease, I am guessing from the cover." Those assumptions were incorrect. On seeing the plain grey cover of *The Death of Satan*, she stated, "It looks a little less exciting than the other two." When asked about her use of visual features and how they affected the process, Participant 3 stated:

I hate to say it but the packaging really does make such a difference ... the other ones had such bright beautiful covers and this one looks very—without its jacket—scholarly. It looks like something I would actually find at [an academic library].... It's a little scary how much the physical design of the book can influence what you think the book is about, or at least to sort it into the entertainment or academic slots. As a customer in a bookstore a million times, you go in and judge books by their covers. You are drawn to whatever the cover art is or something looks really boring. When I was doing research, I'd go in to look for, to browse a section, for a book on the library shelf. I would look for stuff that was newer. I wouldn't even open the thing up to see when it was published. You look for the stuff, that I wanted the most accurate up-to-date stuff, so I wouldn't take the textbook from 1960. You can just tell looking at it.

Participant 3 stated that a lot of information can be obtained from an examination of the item's physical presentation. But whether physical presentation is helpful beyond attracting readers to an item is unclear. Sometimes physical presentation gets in the way, leading to unfair or inaccurate impressions of the nature of the items; it tells very little about the actual content of the items. The retro design of *We've Got Issues* may be appealing, but is the content worth a reader's

time? The physical design of *The Death of Satan* makes it appear to be a very scholarly, serious work, but is it? These questions cannot be answered by visual presentation alone, but that did not stop the participants from making attempts at answering based on physical features. Participant 3 found herself questioning her assumptions.

I don't know how useful the layout [in Book One] is to conveying the content. The graphics and layout give it a hip feel. If you present a Gen Xer with book that looks like *We've Got Issues* and a book that looks like *The Death of Satan*, and ask them to pick one of them from which to get political information, they will immediately go to *We've Got Issues* because it looks cool, not *The Death of Satan* with no pictures. It will be boring. So, they will cut to what is going to serve their needs best.... It is the packaging. If I had to just look at the covers of the three of these and tell you what they were about and which one was better, I would say *The Death of Satan*, but that's not necessarily true. It's all in the packaging.

Other participants made incorrect assumptions about the contents of items based on their covers and physical design. Participant 2, for example, searched through the symbols on the cover of *We've Got Issues*, "to see what types of issues might be in the book." The symbols, however, did not necessarily reflect the contents of the item. What exactly were the meanings of the BMW symbol, the check mark, the anchor, and the ampersand? While these may be relevant in a tangential way, they are not immediately reflective of the book's topics. Based on the cover of *The Crazy Makers*, two participants made an association to the documentary *Super Size Me* by Morgan Spurlock, and two others made associations to the book *Fast Food Nation* by Eric Schlosser; neither covered the same territory as the item in hand. Participant 4 found the cover of *The Crazy Makers* to be both misleading *and* helpful. She stated that she initially thought it was going to be about obesity, but later stated that the cover directed her more toward the idea of nutrition. Participant 5 thought Book Two was about fast food, as did Participant 11; Participant 6 thought it was specifically about McDonalds. None of these assumptions were accurate, and were quickly corrected once the participants began skimming the item.

Some participants made cover-based assumptions about other aspects of the item. Participant 7 assumed that *We've Got Issues* was published in the 1970s when she first saw the cover; this impression changed when she scanned the text. She also made an assumption about the item's genre. Her initial impression of the item was that it might be a self-help book or a book on "how not to stress or how to get to what is important in life." This assumption came primarily from the title, but she tried to use the cover design to support her assumption, noting, "On the cover, there are all these symbols that look stressful, like the skull—but then there are things that don't look stressful, like corn. So, who knows?" She stated that she felt that the look or style of a book can tell you something about the item. It may not convey the aboutness exactly, but it might *help* someone to determine the aboutness of the item. Regarding *We've Got Issues*, she stated:

The word that keeps coming to mind is fun. I've thought that a couple of times now. I am not sure why. There isn't as much text on the page. There are pictures. Her font isn't just Times New Roman; it is different. The chapters are pretty short. I think they play a role, but I am not sure they play a role in determining aboutness. It determined a role whether I would read the book or not. I do think of *We've Got Issues* as fun and that is possibly because the look of the text is different. *We've Got Issues* is also not as serious. It deals with a serious topic, but not in a serious manner. That does, in some way, help me to determine the aboutness because the book is not trying to be serious.

Some participants used the cover design and physical presentation as indicators of tone, intellectual level, and/or audience. Participant 8 agreed that, while the item's design might not address the aboutness *per se*, it might help with the aboutness determination process. He stated, "*We've Got Issues* is more casual, which may have contributed to my assumption that it wasn't a professionally political piece, but that it was intended for a popular audience.... I can see it is for a younger audience." Participant 9 thought the cover of Book One was "kitschy," which led her to understand that it was "a bit of a lighter book." She stated, "I thought it would be aimed to a

younger sensibility. Maybe that it would be something the average person could read with a certain amount of ease; that it was not necessarily scholarly.” Participant 5 stated that Book One was “hip and trendy,” but then corrected himself by adding: “At least it is supposed to look that way.” Participant 10 stated:

You could look at the cover and you could easily get a sense that it is going to be fun. It’s going to be pop culture, whereas with the last book, *The Death of Satan*, it is going to be much more serious, even though the pictures were kind of funny.

Participant 12 explained the associations and assumptions he made based on the appearance of the covers of the three items.

This is a hardback, severe, simple dark color. It seems to be more academic, a little less pop culture, a little less how-to. It is more of an academic rumination, especially considering the title: *The Death of Satan*.... Soft covers are an indicator of modernity. The crazy colors and the repetition of the hamburgers, Xeroxed-looking images, they are all very pop culture. The simple forms, the repetitious forms, the bright bold colors, those tell me it is not necessarily going to be a particularly imaginative, provocative, intellectually stimulating.... These are associations I have with pop culture and pop culture tracts that not everyone else might have.... With no dust jacket on *The Death of Satan*, the tone is grey and ashen. The hard cover and the typeface are very academic. It speaks of the academy.

Most of the other participants did not provide quite as much detail on how the covers affected their impressions of the items. Nor were they as forthcoming with descriptions of their pre-conceived notions about book designs, but almost all of echoed the same ideas: the first two items’ vividly designed soft covers reflected a pop culture sensibility for a younger, less educated audience, and the plain grey hardcover of Book Three seemed more scholarly and academic. These impressions of the items remained consistent among all of the participants throughout all of the examinations.

4.2.2 Internal Visual Elements

All of the participants noted the presence of internal visual elements, such as illustrations, photographs, diagrams, tables, and charts. There were mixed opinions on the usefulness of these elements in determining the aboutness of the items. They were, however, helpful in determining other aspects of the work. Many participants used the photographs in *We've Got Issues* to help them to determine the audience for that work. The visual features included in the items often assisted participants in determining the tone of the book as well.

To the participants, the frequent photographs, sassy captions, and the retro cover of *We've Got Issues* were indicators of a sardonic tone and a “hip and trendy” approach taken by the author. In *The Crazy Makers*, the lack of illustrations and the presence of numerous charts and tables were seen by some participants as an indication of a more serious, scientific, and earnest nature. The few illustrations included in *The Death of Satan*, aside from two photographs reflecting popular culture, were of a more sophisticated nature. They contained works of art, woodcut drawings, prints, and *New Yorker*-style cartoons from the periods covered in the chapters they fronted. These were a “better class of illustration,” befitting a more scholarly work.

Participant 1 stated that she did not give the visual features of the work a great deal of weight, “Forget the picture; it’s not the text.” Throughout her examinations, however, she noted the presence of many of the visual elements. She stated, “I did notice them, but I was more focused on the actual text.” While she disregarded most of the photographs scattered throughout Book One, Participant 1 did look at the charts and tables found in Book Two. In the third item, she commented on most of the illustrations found in the book, but there were far fewer illustrations in *The Death of Satan* than in the other books. When asked whether the visual

elements helped her, she stated that she felt that the visual information found in the items was not very important in determining aboutness.

Participant 2 found the internal visual elements much more helpful. She stated, “I looked at the pictures and graphs: things that visually stimulate you, get your attention.” She found them to be of particular use in determining and confirming the audience in *We’ve Got Issues*. At the beginning of the book, she began to notice the photographs.

Now I’m going to start skimming the book. I am noticing some pictures. Apparently there are some young people in there.... Again, more pictures of young people, so it looks like this is marketed toward a younger generation.... And personal opinions from young people [from the caption].... Again, more young people, so that’s really who the target market is.... Then I am going to read the quote that one young person has.

The photographs scattered throughout the text were of members of Generation X with accompanying captions. The captions were clever statements based on the real-life experiences of the persons quoted, but were often only tangentially related to the content found in the chapter. The concept of *Generation X* might not have been clear from the photographs alone. However, participants were able to use the photos to reinforce their assumptions about the intended audience for the book, when they combined the photographic information with passages in the text addressed to members of that generational cohort.

When asked about features of the books that were important when determining aboutness, Participant 2 pointed out, “pictures, of course, are definitely helpful.” She stated that the visual elements in *The Death of Satan* were more important than those in the first two items. “I think in the third book, it was most important since I didn’t have the verbal clues. So, I was more or less looking for some kind of visual or pictorial clue.” This, however, did not work out so well. “You really couldn’t derive any information from the pictures that they presented either. It ranged from Adam and Eve to Pollock.” The problem was that each picture was not

necessarily representative of the aboutness of the chapter. Each illustration was related to the chapter's content, particularly its time period, but in no way summarized the aboutness.

Participant 2 hoped to rely more heavily on the illustrations in *The Death of Satan* because the text was much denser and the argument was much more complex. This seems to be a pattern among the participants. Each participant, no matter how much they relied on the visual features in the other works, paid more attention to the illustrations in the third item. This appears to be because the rest of the pages contained little typographical variation. *The Death of Satan* primarily consisted of long passages of unbroken text. It was visually monotonous, so the addition of other visual elements caught the attention of the participants. It also appears that *The Death of Satan's* more academic language made its text the most difficult to analyze. In response, the participants tried to find other helpful features in the book to help them understand the aboutness of the item. In this case, however, the illustrations were a less than an adequate substitute.

Participant 3 found that the importance of the internal visual elements depended on the nature of the material being examined. She stated:

In *The Crazy Makers*, the visuals were charts and graphs that would give you a lot of information in a scientific study. It was aiming to be science, so those could be really helpful. If I trusted the science in this book more, I would have been looking at those charts, but I wasn't. In this one [*The Death of Satan*], it was clear right away this is a picture that is not meant to add content to the book. It's just added as a quick distracter and a popular thing. If you are looking through this in a bookstore for a fun read, you might say, "Oh, John Lovitz. This is going to be a great book; I will buy it." So, I think they were a good visual distracter, but not very helpful in categorizing what this book was about.

Others expressed similar feelings about the photographs and illustrations in *The Death of Satan*.

Overall, the participants found them to be entertaining, but not helpful in determining the aboutness. Participant 4 stated, "Illustrations are catching my eye. They seem to be ... on page

56, a witch is kissing the devil beneath his tail. I am not really sure what that's about." She saw them, but did not necessarily relate them to the content of the book. "The illustrations in *The Death of Satan* weren't all that helpful. I was looking to see if they would give a clue to what that was about. They didn't seem that helpful to me. They give you a kind of idea, but I am not really sure." She stated, however, "In *The Crazy Makers*, there were a lot of tables and graphs talking about nutrition that were catching my eye.... The charts and graphs in *The Crazy Makers* were helpful."

Participant 5 made note of some of the photographs in *We've Got Issues*, but stated, "I don't necessarily concentrate on captions to pictures. I might see the picture; I might not. I am more likely to spend a little bit more time on a table or a graph, something like that." He realized that the illustrations and photographs caught his attention, but ultimately were not that helpful in his process. "Well, like I said, my eyes are drawn to those things. I don't necessarily believe that helped me determine what that book was about or not about. It was more a question of content." Participant 6 disliked the photographs in *We've Got Issues* along with almost everything else in the book. "The pictures aren't doing a thing for me. I don't understand them at all. They are mostly people with coffee beverages, which I suppose is meant to imply youth culture somehow." She went on to question the legitimacy and the purpose of the photographs:

I think that the pictures ... I can't tell from looking, since I am skimming, if the people in the pictures are actually represented in the text. Not identifying where the people are from makes me question the content even more; they could just be random I-want-to-be-in-television models and have quotes attributed to them.

Participant 7 noticed a small number of photographs from *We've Got Issues* and two of the illustrations in *The Death of Satan*, but when asked about the visual elements in *The Crazy Makers*, she stated that she did not see them. She stated that visual elements in the first item were somewhat helpful in establishing, or reinforcing, her assumptions about the book's audience.

“*We’ve Got Issues* had the pictures of people. I did look at the quotes of the people, because they had the picture there, to help me reinforce in my mind it was this Generation X-type group. I looked at pictures when I saw them.” Other than that, she did not spend much time with the illustrations or other visual elements. Participant 8, too, noted the visual elements in all three books, but he did not rely on them to help him determine aboutness. He noticed a few charts in the first book and more in the second, but did not express much interest in the visual elements until he reached Book Three:

The illustrations in *The Death of Satan* were a welcome relief between the big chunks of text, but the white space and the breaks in *The Death of Satan* didn’t have as much impact as the chapter and section breaks in the other two. I didn’t do much with the illustrations in *We’ve Got Issues*, but I did pay attention to the headings on tables or charts or inset boxes.

He and Participant 9 noticed that the photographs and illustrations in *The Death of Satan* were a visual reflection of the progression of time through the content. While he found this to be a helpful device for reinforcing his assumptions about the historical/chronological organization of the text, it was only moderately helpful. This realization provided little help with determining the macro-level aboutness.

The photos and illustrations in *The Death of Satan* were mostly just a visual progression of the change of ideas, as you go from the fresco of Adam and Eve getting kicked out of the Garden of Eden from the 1400s, up to Jon Lovitz with horns and a red cape. You see the progression, but it doesn’t give much substance to it, only that there is a progression there.

Participants 10 and 12 both stated that the illustrations were helpful in determining the tone of a work. Participant 10 found that *We’ve Got Issues* contained funny photographs, while Participant 12 noted that *The Death of Satan* “had very visceral illustrations.” With its many photographs scattered throughout the text and its “fun,” “handbook” appearance, Participant 12 felt, “the way things are laid out in *We’ve Got Issues* is very MTV.” This was a typical participant reaction.

They saw *We've Got Issues* as a book for Generation X, and felt that “it was not necessarily scholarly.” On the other hand, the dearth of illustrations in *The Death of Satan* helped to support the participants’ impressions that it was a scholarly work. Though scholarly, some of its visual elements were considered misleading by participants.

The use of two specific photographs in *The Death of Satan* sent mixed messages to some participants. Book Three uses a photograph of actor Anthony Hopkins as Hannibal Lecter, the serial-killing cannibal from the film *The Silence of the Lambs*, as the opening page of its introduction. The second half of the book opens with a photograph of comedian Jon Lovitz, dressed in a devil costume complete with horns and pitchfork. Both iconographic images caused some participants to mistakenly assume a popular culture orientation for this item, which was not an accurate assumption. The participants quickly corrected this misconception, but some still expressed feelings of being misled by the inclusion of these two images. Participant 9, upon reaching the first photograph in *The Death of Satan*, stated: “It looks like it also has a bit of a pop culture sensibility because of the picture of Hannibal Lecter.” After looking at the other illustrations and a few small passages of text, she retracted that statement. “So, I would say it is probably not as pop culture-infused as I would have guessed from opening it and seeing Hannibal Lecter.” She noted that its illustrations were indicative of time periods. “On *The Death of Satan*, the illustrations seemed like they were more from the time of the chapter.” Participant 9 stated, “The illustrations actually misled me a little bit; I thought this would be a lighter book with more pop culture references due to the Hannibal Lecter photograph.” About the same photograph, Participant 3 remarked, “it was clear right away, this is a picture that is not meant to add content to the book.” Participant 1 explained why she would not trust the illustrations as indicators of aboutness: “Because it can really throw you off. You know, especially a

photograph, no matter how carefully it is chosen by the author, for the reader it is not necessarily representative.”

No participant in the study stated that the illustrations, tables, etc., were essential (or even useful) to aboutness determination. If the illustrations had been removed from the items, the participants felt their ability to understand the aboutness of the items would not have been hampered. In fact, some participants indicated that the presence of the illustrations might have been a detriment to their aboutness determination processes, since the visual information can be misleading. Ultimately, there is not much support for the use of internal visual elements in the determination of aboutness, when seen through the eyes of the study’s participants. This, however, may have been related more to the nature of the three items chosen than to the overall importance of visual images in determining aboutness. In other items, visual features may play a much bigger role in determining aboutness. This is an area for further research.

4.2.3 Typography

All twelve participants mentioned issues related to page layout and typography, including the use of sidebars, bullet points, lists, fonts, and indicators of emphasis, such as bold, capital letters, and italics. As with illustrations, no participant found any of these elements to be particularly helpful in the process of determining aboutness. There was some consensus among participants that, while not of primary importance, typographical elements could help determine auxiliary elements that were themselves of use in their aboutness determination process.

From the participants’ statements, it appears that the role of page layout in the process is primarily related to how it affects the readability of the documents. Participant 7, for example, stated:

These books are definitely easier to read and easier for me to figure out what they were about because they had pictures in them. It wasn't just all text. *The Death of Satan*, it's a lot of letters and words on a page.

Participant 8, after opening up *The Crazy Makers*, noted, "This book isn't as broken up as much as *We've Got Issues* with pictures and sidebars. It looks like the text is a little bit denser, so it is harder to get into." Later, he stated:

With *The Death of Satan*, it is a much denser piece, closer spacing and fewer illustrations. It was harder to get through that one because there was more material, regardless of page count; more ideas, denser ideas, and more densely packed text, so it was slower doing that one.

Participant 10 also stated that *The Death of Satan* was "much harder because there is not much structure to it.... because it is not broken down very well." In response to its lack of section headings and its many long unbroken sequences of text, she targeted the content of first and last paragraphs. Participant 2 stated that the "sameness" of Book Three "made it more difficult," and "on top of that, you get bored with it."

The participants also found that page layout and typography assisted them in understanding the tone and the level of the work. This is similar to the thoughts expressed by the participants when discussing the designs of the items. Participant 6, when reviewing *We've Got Issues*, stated:

It's got a big font, which sometimes actually puts me off a little bit; like I don't think that it's as smart of a book, or something ... the bigger the font, it makes me lean toward thinking that book isn't very smart.... Fonts help me to determine how serious it is in presenting the subject.

While the font does not tell Participant 6 that the book is about political issues important to Generation X in the 2000 United States presidential election, it does give her a sense of the tone and the author's approach to the material. The other typographical features recognized by the participants are listed in Table 4.1.

Table 4.1: Use of Typographical Features

<i>Feature</i>	<i>Number of Participants</i>	<i>Percentage</i>
Emphasis	12	100%
Inset text	12	100%
Font	9	75%
Bullet points	8	67%
Lists	8	67%
Sidebars	8	67%

These features all played roles in the process, though not necessarily directly related to the determination of aboutness. Sidebars were mentioned quite frequently, but not because of the vital information found in them. Participant 6 stated that sidebars annoy her, so she ignored them when they appeared in the texts. Seven other participants, however, mentioned that they looked at the sidebars because “they stood out,” and that they contained helpful information only occasionally.

Like sidebars, bullet points and lists are also eye-catching features. Not one participant praised bullet points or lists as helpful in determining aboutness, though most of the participants did scan them when they were encountered. Although they looked at other lists, two participants stated that they did not examine bullet points. Participant 2 stated, “I really didn’t read the bullets, because once I read the sentence in front of the bullets, you understood what the rest of the bullets would be about.” Participant 6 simply stated, “Bullet points and things don’t seem to impress me.” She did not use them.

As mentioned above, Participant 6 found that the font size affected her overall impressions of the items. Participants 1, 3, and 4 only mentioned font in connection to the size of section headings found in the books. They noticed bold section headings in larger fonts, but stated that they were “pretty oblivious” to differences in fonts. The participants who noticed

fonts primarily mentioned them in terms of a comparison of font sizes among the three books they analyzed, and whether larger fonts indicate a more popular culture-oriented book. Participant 5 mentioned that he had “a little bit more difficulty with *The Death of Satan*; it is a smaller font.” Later he stated, “A larger font seems to be more of a popular culture book, a light read; whereas *The Death of Satan* has a smaller, more academic type of font.” In describing *We’ve Got Issues* as “fun,” Participant 7 mentioned, “Her font isn’t just Times New Roman; it is different.” Participant 10 agrees. “This one is definitely a bigger font; it is a lot more fun in terms of using italics and bold.”

All twelve participants looked at passages of inset text throughout their examinations, but whether helpful information could be found in these blocks of text is another question. Participant 4 mentioned, “In *The Death of Satan*, though it wasn’t helpful in figuring out what it was about, they had a lot of quotes or poems or different pieces of literature that were indented into the paragraph. Those caught my eye.” Participant 6 explained why she did not bother reading the inset text. “Lots of things like poems and quotes—I don’t have much patience for them. I am not really sure why. I don’t think of them as serious as the full text. It is supplementary.” Similarly, Participant 7 stated, “Overall, I tend to skip them.” Participant 8 stated, “If it was an extensive quote of a couple of sentences, I would usually skip it.” When opening to a random page in an item, Participant 10 was asked what she saw first. She replied:

Here, this is indented; that will catch my eye ... that is why I definitely looked here first, because it was indented. I didn’t want to read it, because there is nothing sticking out within it, but I noted it was there—a big quote on this page.

Participant 11 stated that what catches the eye is guided by white space. While the material may not be as informative, the white space around the inset text focuses your eye there.

It’s the same theory as a resume. You always want to have lots of white space. That’s telling me to look there. If I go to another page, nothing stands out. On

113, there is text from another book. Since that is indented, and again there is white space above it, on these two pages 112-113, I would probably look at the first sentence of that. Now, I go to page 74, and there is a poem. I would be drawn to skim through the poem and look at the sentences above and below it.

Participant 12 concurs that white space is what catches the eye, but acknowledges that this is not a particularly helpful tendency.

The instinct of the eye, the physical, the first thing the eye is drawn to, aesthetically, is the balance between dark and light space. They are immediately going to be a target. But intellectually, you know that that is a sub-argument or tangent within a larger argument. So that is not the first place you want to look.

Those things that catch the eye and those things that provide helpful aboutness data do not always match, or so it would seem.

Bold, italics, and the use of capitalization are all ways to emphasize specific pieces of information within a text. While they were examining the items, the participants' eyes tended to focus on words employing some form of emphasis. Authors and/or editors use emphatic devices to draw attention to some feature or thought. Apparently, they work quite well. While the device may grab one's attention, the substance of what is being highlighted is not always related to the macro-level aboutness of the item. Emphasized information may reflect primary or secondary themes of chapter-level aboutness, or it might simply be, as Participant 3 stated, a "visual distracter." All twelve participants found themselves drawn to words in bold, italics, or all capital letters, including acronyms and initialisms, whether those words were helpful in determining aboutness or not. While scanning the texts, Participant 1 noted several instances where these features caught her attention.

- WEB OF DECEIT. It jumps out at everybody.
- Fast Facts. Facts, see they're highlighted or bolded. So, it makes me jump toward them naturally, which is the purpose, of course.
- Skimming, skimming, skimming, looking for a capitalized word.

But when the discussion turned to features important in discovering aboutness, techniques of emphasis were never mentioned. Though eye-catching, text emphasis on its own rarely led to gains in determining aboutness. It was most often a case of style without substance. Each participant mentioned bold type, capitalization, or italics, but few actually considered them an essential part of determining aboutness. Participant 4 mentioned that she was looking “for different bolded section headings like in *The Crazy Makers* and *We’ve Got Issues*,” but that was primarily due to an interest in the section headings, rather than in bolded text in general. Participant 7 mentioned that “capital letters pop out in the middle of sentences,” and that she noticed them often. Participant 8, in the middle of examining *The Death of Satan*, stated, “I guess I am drawn to capitalized words, italics, quote marks, [but] this book has so many quotes that they tend to blend into the background.” When asked in the interview what stood out in the text, he again said:

Words in quotes, some acronyms (especially in *The Crazy Makers*), three capital letters all in a row, I would look at the first 5-6 words in a paragraph. Then, sometimes, if there was a content word that started off a sentence, I would look at that. Other capitalized words stuck out, like *Salem* in *The Death of Satan*.

Participant 8 described how the word *Salem* came to his attention. He explained that it was a combination of it being a capitalized word, a proper noun (a place name), and a reflection of the book’s content. “I think, besides being drawn to it because it is a capitalized word, I tended to attend to it more because I could link it to other ideas within the book. It was in itself a concrete event and place.” In his case, the typographical style got his attention, but it was the content of the text around that word that kept him there. This is typical of the participants’ uses of typographical features in general. If the typesetting is used to emphasize important content, the style may draw attention to it, but it is the ideas represented that are useful in the aboutness

determination process. Emphasis, like the other elements of typography, played no more than an auxiliary role in the conceptual analysis process.

The participants learned that what is eye-catching may not always be important in determining aboutness. In fact, the things that draw one's attention or visual focus may not be of any importance at all at the macro-level. Poems, inset quotes, font sizes, white spaces, quotation marks or other symbols, etc., may focus the eye on less pertinent information than what is found in the monotonous, unbroken blocks of text. Eleven of the twelve participants had repeated instances in which their eyes were drawn to content that proved to be unrelated to the immediate process. When asked if the visual features were helpful in determining the aboutness, Participant 3 remarked, "They were helpful, but I don't think any of the visual features explicitly made it clear. You could remove all of the illustrations without destroying clues about the aboutness." Participant 7 echoed this by stating that the visual features were "more interesting than helpful in aboutness." She felt:

The only way I see that they could help with the aboutness is that they attract your eye to a certain section and then you look at it. I think if I pulled them out and looked at them, I would have no idea what the book was about.

4.3 DOCUMENT EXAMINATION STRATEGIES

The ways the participants examined the three items are divided into strategies for examining: the text and the entire item. Strategies for examining individual pages of text include skimming, word mining, flipping, sampling, and reading. Strategies for examining the entire item include linear, non-linear/random, and two-ends approaches. These strategies, illustrated in Figure 4.1, are described in the following sections.

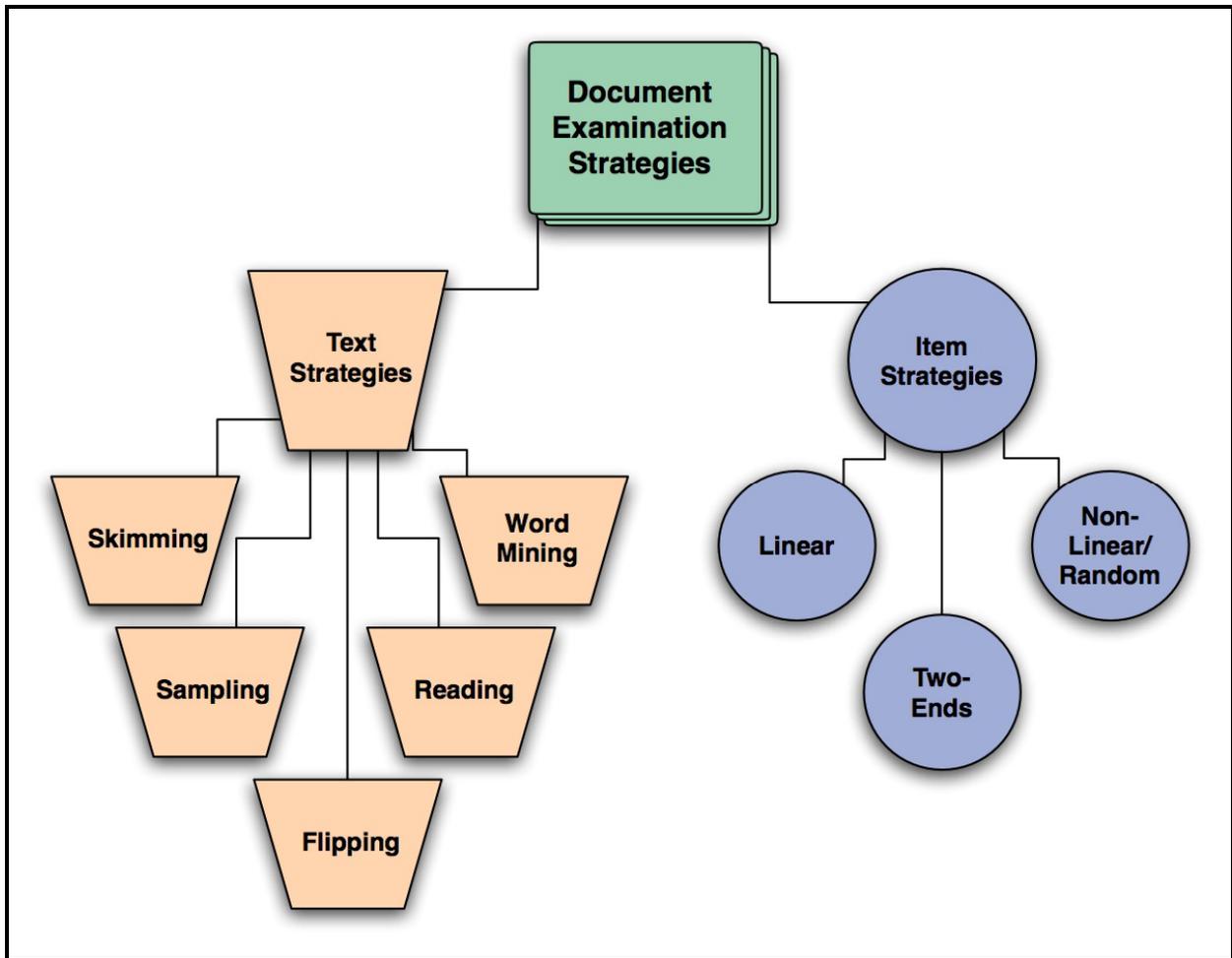


Figure 4.1: Document Examination Strategies

4.3.1 Strategies for Examining the Text

The participants employed a number of strategies to examine the text. *Skimming* is the process of examining or scanning a page, book, or some other form of text in order to get an idea of the content without reading the item. While this process is performed rapidly, some content is absorbed and the reader will have an idea of the nature of the content. Skimming may involve reading a few words, an entire sentence, or numerous section headings found in a chapter. This activity is different from the process the author refers to as *word mining*. Word mining is

performed by quickly and superficially glancing at a page to find words that stand out. Little of the content is actually registered though certain content words may be recognized during the process. Once a word of interest is spotted, the reader might then skim that section or even *sample the text*, which is reading a few sentences or even an entire paragraph. Word mining is similar in nature to *flipping*. Flipping is defined by this author as rapidly paging through a text to see if something stands out or catches one's eye. While flipping through a text, the reader might be mining the pages for words that stand out, although flipping lends itself more to spotting changes in page layout and spotting visual elements included in the text. The last strategy for examining the text is *reading*. Reading is the examination and processing of strings of text to understand the messages found in the sequence of alphanumeric characters comprising the text. The researcher uses the term *reading* to indicate that a participant examined passages of text that were longer than a single paragraph. For example, participants who examined anywhere from two or three sentences to an entire paragraph were identified as having *sampled* the text; participants who examined consecutive paragraphs were identified as having *read* the text. In addition to these standard strategies, there were two supplementary techniques that deserve mentioning. One was rare, but the other was observed with regularity. The first was scanning pages in a spiral pattern and the second was scanning preceding paragraphs in response to finding useful data.

When asked how she examined the items, Participant 1 stated that, “the process was more like just skimming through, analyzing, picking out things that were interesting for me.... Picking out key words, key phrases.... I was actually cruising for words that were jumping out at me or concepts that caught my attention.” In her description, she identifies skimming and word mining as processes she used. Participant 1 sampled some passages of text, but did almost no flipping;

her process generally entailed page-by-page, linear examinations of the three books. She did not read any extended passages of the text, but often stated that she would like to read more.

Participant 2, too, primarily used skimming to examine the texts. She stated that the process of skimming for aboutness data felt familiar. “I tend to do exactly that. I skim before I buy it or take it from the library. It wasn’t really difficult for me; I felt comfortable doing it because I have done it before.” During the process, she stated that she was skimming for statements like “This chapter is about....” Participant 2 did not read any extended passages of text, nor did she use flipping in her very linear examination. She did use, however minimally, text sampling and word mining as strategies in approaching the text.

Participant 3 stated that she approached the task of examining the items like she would handle writing a summary of a book for a class. She wanted to figure out how to get as much information as possible without reading the items. To do that, she used all of the strategies except reading. “I was skimming a lot.” That strategy worked well for her for the first two items. She, however, felt that with the more scholarly text of *The Death of Satan* that she needed to read more. Book Three was the only item in which she used the sampling technique in addition to skimming and word mining. Participant 3 used flipping in her examinations too. To get a good understanding of the aboutness, she felt it was important to look through the entire item. Unlike some participants who tried to look at each page, Participant 3 preferred to flip instead. “When I am flipping through stuff, I try to do it in a very spaced out fashion.” Her flipping was done in a somewhat unusual way: backward. “I don’t know why I do that. It confuses many people. I will pick up a book to figure out if I want to read this book ... I am comfortable skipping around. It didn’t make me lose track of where I was.”

Participant 4 used four of the five strategies to examine the text. She did not, however, use all four techniques for each item. Unlike most of the other participants, Participant 4 did not use skimming as her primary strategy. She used skimming only when she was examining Book Two, and this was only when she realized that reading the opening quotes for each chapter was not working. In response, she began skimming the section headings in each chapter instead. In order to do this, she used flipping to move from section heading to section heading. Participant 4's approach to the items primarily involved sampling and reading. She chiefly sampled discrete paragraphs spaced throughout the items, but from time to time she did read extended multi-paragraph passages. In *We've Got Issues*, she focused on reading the chapter abstracts and the first few paragraphs of the introduction. In *The Crazy Makers*, she read nearly the entire introduction, but in *The Death of Satan*, she stopped after reading the first two pages of the introduction. When she stopped reading, she began flipping through the item. This was primarily due to her difficulties in understanding the aboutness of Book Three. When she realized she was having difficulty, she began flipping randomly through the pages hoping to spot something that might give her some direction. "I am just paging through. I am not really sure that the introduction is telling me what I need to know." Her flipping around in *The Death of Satan* did not help her. She did not use word mining in any of the three items.

Participant 5 used three of the strategies to examine the text: reading, sampling, and skimming. He was primarily a skimmer, despite stating at the beginning of the session, "Ages ago, I was taught that basically I should read the introduction. And so, I am going to do that. Literally, I am just going to read the introduction to myself." He did read the first two sentences of the introduction to *We've Got Issues*, but then began to skim. He read large portions of the afterword in the first item, but then alternated between sampling the abstracts and skimming the

text. The other two items were handled in similar ways, except that he focused only on the introductions and conclusions. After he completed the examinations, he was asked how he approached the task. He replied that he “read the introduction,” which he had not.

Participant 6 did not read any extended passages in her examinations of the items. She did, however, use the other four strategies. She primarily skimmed the items, but she did a certain amount of flipping once she finished her linear examination of Book One. For the second and third items, she spent more time randomly flipping through different parts of the book, and skimming, word mining, and sampling the text. When asked how she approached the text, she stated:

I mostly ... jumped and let my mind catch on things that I found interesting. [I was] skimming or finding words that caught my eye, [following] trails to other things to see if they would be present in the book. I did a lot of skimming and assumption making.

Participant 7 used all five strategies to examine the text. She, too, was primarily a skimmer, although she did considerable flipping and text sampling in her process as well. However, she read only one extended passage of text from the introduction in *The Death of Satan*, and did very little word mining. When asked how she examined the text, she mentioned skimming, but also addressed an issue related to combining the think-aloud and text examination processes.

Something I had trouble doing was verbalizing what I was seeing when I was skimming. It's hard to say what you saw. I only verbalized when I found something that was interesting. Reading aloud, I would look for words that popped out at me.... When I skim, I just look for words that will pop out at me. I think you absorb a lot more skimming than what you are cognizant of absorbing.

This highlights one of the limitations of using think-aloud as a data collection technique. Only verbalized thoughts can be recorded; participants cannot speak as quickly as they think, and they cannot be aware of all of their internal processes and activities. Because of these limitations, the data are inevitably incomplete. In this case, Participant 7 only mentioned what she considered

interesting in her think-aloud sessions and, thus, only this information was passed on to the researcher.

Participant 8 used three of the five strategies to examine the text. In his examinations, he neither read nor flipped through the texts. He primarily skimmed, but with *The Death of Satan* he occasionally sampled passages of text. He stated that in his examinations, he spent more time on the content, just skimming through the books and the chapters to see what they said. He was not sure, however, if this was the most efficient strategy. “I guess, given another item to look at, if I had a more limited time frame, I would focus more on the external aspects, rather than on the content itself.” He did state, however, “I think skimming through the content backed up my evaluation of each work.... I think by skimming through the content, I have memories of specific elements about each of the books.” Another benefit to skimming the text, he feels, is a certain level of objectivity that can be achieved.

I think that [objectivity] is helped by not reading the book. That way you are not getting as much of the author’s persuasion as you would by just reading it. By skimming, you are just pulling out the main ideas so you can get the gist of the argument without the power and force of it, which might make you lose some of the objective focus. For example, “*The Crazy Makers* is about how organic foods are good,” instead of “*The Crazy Makers* is about nutrition, diet, and organic food.” It leaves the value decision up to the reader.

Participant 8 used word mining more often than most of the other participants. This may be partially a result of his very linear examinations of the items, but also from his use of the indexes as a way to determine which topics had the greatest number of entries. His word mining also increased as the process went on. As he neared the end of his examination of *The Death of Satan*, he began to rely more heavily on word mining than on skimming. This was due partially to fatigue, but was also a response to the more difficult content found in the third item.

Participant 9 used three strategies to examine the text. She neither read, nor mined words during her process. She primarily skimmed and flipped through the items, and occasionally sampled small passages of text. When she did sample the text, it was never more than a single paragraph in a chapter or a section. She feels skimming can be a successful strategy for this process. “Just by skimming through the book, I got an idea [of the aboutness].” Participant 10 concurs, “I do think you can definitely skim books and get the main concepts.” In her examinations, Participant 10 skimmed and sampled the texts. She used word mining intermittently, and flipping was limited to just a few instances during the entire process. She did not read any lengthy passages of text.

Participant 11 used skimming and text sampling as her primary strategies. She also flipped through the pages of the texts. She stated that when she is examining a book, she does “usually fan through the book.” She did not read the text, nor did she mine for words. She, too, stated that her skimming process really helped her to reinforce her notion of an item’s aboutness. “In *We’ve Got Issues*, I thought it was about politics, so I skimmed through and saw topics that you would expect with politics. So, I guess I used that to reinforce an idea, once I had a general idea.” Participant 12 used skimming and sampling as his primary strategies too. He used word mining only briefly in the beginning of the very first item to get his bearings. After that, he did not use the technique again. He did not read passages of text longer than a paragraph. He flipped through the first items, but when he reached *The Death of Satan*, his process was focused primarily on the introduction. “The only substantial difference was probably the introduction focus on *The Death of Satan* versus the flipping of the other two.” In *The Crazy Makers* and *We’ve Got Issues*, he would generally, “flip through to wherever the thumb stops.”

Participants 8 and 12 were the only participants to use a somewhat unusual technique in their examinations of the texts. During the interview, in order to get a clearer picture of their text examination processes, they were asked to examine some random pages from the texts to find aboutness information and to describe how they did this. Both observed that they scanned the pages in a spiral pattern. Participant 8 replied, “I start in the center and work my way out in a spiral pattern, mostly noting capital letters.” Participant 12 stated, “I tend to start in the center and go up and then down. I think it is just easier to see those things; it is easier to move your eyes in a small circle in the center of a page.” Neither participant had any further explanation for this unusual and unplanned technique.

The other supplementary technique observed in the examinations was sampling a preceding paragraph in response to finding useful data. Unlike scanning in a spiral pattern, this approach was not unexpected. Eight of the twelve participants used this approach in their examinations. Participant 7 illustrates the use of this technique.

That is page 16, so I will flip back to 15 to see how that sentence started. “This shame arises.... Some people still stubbornly harbor such a view.” He is just going on. “The pages that follow are an attempt to tell the story of this reticence....” I need to skip up a couple of paragraphs because I am not sure what he means by “this reticence” and there’s a quote in the middle, so I am going to start above.

After reading the paragraph, she stated, “That’s the ‘reticence’ he’s talking about.” Through skimming the text, she recognized a passage that was meaningful for the aboutness of the item, but because she was skimming, she could not understand the meaning of the passage without further support from the text. By looking at the preceding paragraph, she was able to understand the meaning and find context for the raw data gathered via her standard skimming process. This supplementary process was used by each of the eight participants in a similar fashion.

Of the strategies employed to examine the pages, the one most frequently observed was skimming the text. All twelve of the participants skimmed the books as an examination technique. All twelve of the participants also used text sampling. Examples of skimming, however, were identified far more frequently than that of text sampling. Eight participants used word mining in their examinations. Flipping was performed by nine of the participants. Only three participants actually used reading as a strategy, though four others mentioned that they would have liked to have read the texts to get more information. It appears that all of the strategies have a place in the aboutness determination process, though the need for some depends upon the level of the text, the nature of the item, the organization of the text, and the visual layout of the pages.

4.3.2 Strategies for Examining the Item

The researcher observed three primary strategies for examining the items. These included: linear, two-ends, and random/non-linear approaches. Eight (or 67%) of the participants used the same approach for all three items. Five of these participants used linear approaches, and three used the two-ends approach. No participant relied solely on a non-linear/random approach (although it appears that had some uncertainties about the process been clarified, Participant 6 would have used a non-linear approach for all three items). The four other participants varied their approaches. Of those mixing their approaches, one participant used a different approach for each item, and three participants used two approaches. None of these four participants had identical configurations in their approaches to the different items. A breakdown of the participants' strategies for the three items appears in Table 4.2. Of the 36 total examinations, 18 (50%) were

linear in nature, 14 (39%) were conducted using the two-ends approach, and the remaining four (11%) were non-linear/random examinations.

Table 4.2: Participants' Approaches to the Three Examinations

	<i>Item 1: We've Got Issues</i>	<i>Item 2: The Crazy Makers</i>	<i>Item 3a: The Death of Satan</i>	<i>Item 3b: Folklore and the Sea</i>	<i>Approaches Used</i>
Participant 1	Linear	Linear	Linear		Same approach to all items
Participant 2	Linear	Linear	Linear		Same
Participant 3	Non-Linear	Two-Ends	Linear		Mixed approach to items /3 used
Participant 4	Linear	Linear	Linear		Same
Participant 5	Two-Ends	Two-Ends	Two-Ends		Same
Participant 6	Linear	Non-Linear		Non-Linear ²⁵¹	Mixed /2 used
Participant 7	Two-Ends	Two-Ends	Two-Ends		Same
Participant 8	Linear	Linear	Linear		Same
Participant 9	Two-Ends	Linear	Two-Ends		Mixed /2 used
Participant 10	Linear	Linear	Linear		Same
Participant 11	Two-Ends	Two-Ends	Two-Ends		Same
Participant 12	Non-Linear	Two-Ends	Two-Ends		Mixed /2 used
Total	6 linear 4 two-ends 2 non-linear	6 linear 5 two-ends 1 non-linear	6 linear 5 two-ends 0 non-linear	1 non-linear	8 participants used the same approach 3 used two 1 used three

A summary of the approaches is found in Table 4.3.

²⁵¹ Participant 6 did not analyze *The Death of Satan*. She had read that item previously. *Folklore and the Sea* was substituted as Book Three.

Table 4.3: Summary of Participants' Approaches

	<i>Participants exclusively using this approach</i>	<i>Participants who used this approach at least once</i>	<i>Number of examinations in which this approach was used</i>
Linear Approaches	5	8	18
Two-Ends	3	6	14
Non-Linear	0	4	4
Mixed	4	N/A	N/A

Linear approaches were observed more frequently than the other two approaches; half of the examinations used this approach. Its appeal and usefulness was obvious to many of those employing it, but there are questions about the role of *observer effect* on the participants' choices of examination approaches, i.e., how the researcher's presence affected the participants and their performance of the tasks. Some participants admitted that their participation in a study caused them to make changes to their process, while some insisted that the presence of the researcher had no effect on how they performed the tasks in the study. They stated that their performance was influenced by the requirements of the tasks, not by the desire to provide the researcher with helpful data or to try to do meet the researcher's expectations. When asked about her very linear process, Participant 1 stated, "I read books cover to cover. I can't overemphasize that is my standard style...." She later referred to herself as a "cover-to-cover gal." Participant 2 felt that her linear approach might be related to the research situation rather than to her natural inclinations. Starting at the beginning of the book and proceeding straight through is what she thought she should do to determine aboutness, but if she were trying to determine what the items were about to see if she wanted to read them, she stated she instead would have just read a part of the last chapter. Participant 4 did not explain why she used a linear approach for the three items; she just did. It is not clear, however, that she *did* use a linear approach for the last item

because Participant 4 gave up on *The Death of Satan* fairly early in the examination; categorizing that examination as linear is somewhat speculative. Had she continued beyond the introduction, perhaps her approach would have changed, but for the short length of time that she was examining Book Three, she did proceed in a linear manner. Participant 8, however, made a conscious choice to use a linear process when examining the items.

I went through page-by-page of each book; so I was fairly confident I hadn't missed anything. If I had just flipped through, I think I might have gone back for a more thorough look or do some spot checking on it to make sure I was making a reliable statement. Having gone straight through, I assumed that I had enough of the gist to make a good statement.

Participant 10 was asked about her linear approach to all three items, and if it was typical of her or if it was related to the activity. She stated, "It has definitely become my method. I am working and going to school; I feel very busy. I feel like [I just want to] get to the point." To the researcher, this seemed to indicate that she had not changed her usual approach. But moments later, when asked if she considered skipping over the chapters, she stated:

No, because you wanted to know what the whole book was about. So, for that I felt obligated to look at each chapter. If you had said, tell me what this book is about, I *might* have just looked at the introduction and the conclusion and that's it. I felt I needed to hit a little bit more.

So, it is unclear how much her linear process reflected her instincts and how much it reflected her desire to fulfill the responsibilities of a study participant.

Participant 3, who used a linear approach for Book Three only, felt it was the most appropriate approach for *The Death of Satan*. "I needed to go through it forward because it was a history. He was obviously presenting everything in a very linear way. So, I wanted to make sure that where he started progressed in a consistent way." In order to do this, she used a completely different approach from her earlier examination strategy. The study did not affect her choice of process; it was the content that dictated her approach. Participant 6 used a linear approach only

with the first item. Her use of the linear approach did not reflect her innate preference; it was clearly related to her desire to do what she thought she was supposed to do.

Partly because I didn't like it and partly because it was the first one, I felt like I needed to be more thorough—as part of my process of figuring out what I needed to do to analyze the book. And then, after that, you said, “If you feel like you are done with the book, you can stop.” That gave me permission to not go chapter by chapter and not be as thorough.

After examining the other two items in a completely different fashion—one that was more random and more reflective of her stated proclivities—she admitted that her non-linear approach was probably not the most efficient approach for determining aboutness; jumping about the text might actually make it more difficult.

The two-ends approach, used by three participants exclusively and by six participants in total, was the second most frequently observed approach for examining the items. There were slight variations in this approach. Some participants did not look at the middle of the items at all, while others looked very briefly at content in the chapters. Participant 5 favored the two-ends approach, and used it for all three items. When asked to describe his process, he mentioned that he would read the introductions and then he would “skip to the back and read the conclusion or last chapter.” While he varied somewhat in his examination of the first item, his process was primarily focused on the two-ends: “I basically skipped the interior chapters.” In the first item, because of his interest in the content, he spent time looking at the chapters in the middle; he later admitted this was unnecessary for his process because he already knew what the book was about. Participant 7, who also used this approach for all three items, stated, “Flipping through the chapters and reading some of the text did not help me as much. It just helped to reinforce what I already thought the book was about.... I skip middles a lot.” When she did look at content in between the introduction and conclusion, it was only at the end of the process, and she “intended

to only use those as a way to clarify.” Participant 9 used the two-ends approach for the first and third items. She explained her use of this approach:

Since I was looking for an overview of the whole book, I didn’t think it was relevant to look at the individual chapters. On *We’ve Got Issues*, I thought I had a decent understanding of what the book was about, and I didn’t need to look at the specific issues.... For the most part, I skipped the inside of the book. I just looked at the end, just because I wanted to figure out what the whole book was about.

Participant 3, the only participant to use all three approaches, used the two-ends approach for *The Crazy Makers*. She was pleased to have the opportunity to use this approach on the second item because she really disliked the book. She was happy that she didn’t “have to read all the supporting arguments in between.” She stated, “I had to look, flip through. I couldn’t just look at the introduction or the conclusion, I had to look at the middle too,” despite the fact that she did not really do this for Book Two. She did page through the book, but spent almost no time with the content in the middle of the item. Participant 11 used this approach for all three items and Participant 12 used it for the last two items. Neither had much to say about their use of the two-ends approach.

The final approach to the texts, the non-linear/random approach, was used primarily by Participant 6, but was also used by Participants 3 and 12 for one item each. The approach showed no particular pattern in the text examination. It was neither focused on the entire item in order, nor on the two ends of the item. It was characterized primarily by random jumping about within the text. Participants 3 and 12 used the non-linear approach when they examined *We’ve Got Issues*. Participant 12 stated that after an initial examination of the front matter and introduction, he flipped through the book to wherever the thumb stopped. When asked why he did not use a linear examination, he stated, “It was—in the introduction. But after that, it told me what I needed to know to be able to go and to peck and hunt with some reasonable degree of

acuity.” He used a different approach, however, with the second and third items. When Participant 3 was asked about her non-linear process for Book One, she stated:

I like to multi-task. I always flip through books backwards.... I will flip to the middle to read a little bit, then flip back to here.... I am comfortable skipping around.... I’m not into being that methodical. I like to operate a little bit on gut instinct. If I can pick up at random and read a page and know what it is about, I’d rather try that technique first and then see whether that works better for me than trying to go through chapter by chapter.

Participant 6 used the non-linear/random approach for both the second and third items. She stated that this was more in-line with her instincts, as opposed to the linear approach she used for Book One, which was based on pre-conceived notions about what she could and could not do in the examinations. Once this was clarified, her process changed. “That gave me permission to not go chapter by chapter and not be as thorough.” She described her preferred approach to examining a book.

See when I get interested in a book or a subject, I don’t go through in a linear way. When I read a book, I go through it from front to back. When I am looking at a book and I am interested even in the slightest in the subject matter, I am much more likely to [skip around], and my mind jumps from subject to subject; there are more things that catch my attention.

And that is exactly what she did with the second and third books; she skipped all around the items following trails to find interesting things. This process, she admits might not be the most efficient way to determine aboutness. “My approach would take a lot more time. It rises from a different point—whether I would like it. If it is focused on aboutness, then I probably would go to the contents and then do a little compare and contrast between chapter title and content.” This personal interest-based approach was typical of her process.

It appears that all three approaches can be used successfully in the aboutness determination process, although the non-linear approach may not be the most effective way of finding aboutness data. The choice of approach simply seems to be a matter of personal

preference. There appear to be no qualitative differences in length, complexity, or level of detail among the final aboutness statements written by participants using different approaches. There were great variations among the linear participants, and great similarities among the statements written by one participant using different approaches for each item.

CHAPTER 5.0 CONTENT EXAMINATION

The second major group of components important in the aboutness determination process is related to the examination of the intellectual or creative content of the item. This group has been subdivided into two categories of concepts: content characteristics and content examination strategies. Both of these categories are addressed in this chapter, with the usage of their components detailed and examples from the participants' transcripts used to illustrate their place in the process of determining aboutness.

5.1 CONTENT CHARACTERISTICS

The content characteristics addressed in this section contain both author-related and text/document-related aspects because, at times, it can be difficult to separate the two. Included, among others, are issues related to point of view, tenor of writing, audience, form, and validity. Table 5.1 summarizes the use of these characteristics.

Table 5.1: Content Characteristics Used by the Participants

<i>Content Characteristics</i>	<i>Number of Study Participants Considering These Characteristics</i>
Genre, Form of Thought, and/or the Type of Writing	12
Language, Tone, and Intellectual Level	12
Structure of Content	12
Audience	11
Point of View, Approach, and/or Perspective	11
Author's Background	10
Validity of Content	9
Epistemology	0

5.1.1 Epistemology and Theoretical Orientation

Despite the Swift, Winn, and Bramer's inclusion of epistemology and theoretical orientation in a list of content characteristics to consider,²⁵² the participants in this study showed absolutely no interest in the authors' epistemological backgrounds. Not a single participant spoke of a concern about this topic, and when asked directly if they had taken it into account, not a single participant indicated this was something they considered, or even would consider. This is not something the participants were instinctively concerned about, particularly with works of a popular, rather than a scholarly, orientation. Perhaps in highly specialized, academic collections, this might be a consideration, though it seems unlikely.

5.1.2 Research Methods and Validity

Nine of the participants expressed interest in the authors' research methods and/or the validity or truthfulness of the material. The participants expressed interest in these topics to varying

²⁵² Swift, Winn, and Bramer, "A Multi-Modal Approach," 91; Swift, Winn, and Bramer, "'Aboutness' as a Strategy for Retrieval," 186.

degrees. Simply identifying the methods used by the authors satisfied some participants. Other participants, however, questioned and criticized the authors' choices of research methods. Some participants doubted the validity of the authors' conclusions or the authors' truthfulness in general. All nine of these participants expressed interest in sorting out "facts" from "opinions," although they did not always agree upon which was which. While Participant 1 was particularly concerned about the validity of statements made in Book One, statements in *The Crazy Makers* incensed Participant 8. Depending on their concerns and interests, each participant found different types of content to be questionable. The widespread interest in this topic was surprising to the researcher, since these issues are rarely discussed in the LIS literature of aboutness; the researcher did not expect such a focus on the validity of the work.

During her examinations, Participant 1 did not express interest in the methods used by the authors to reach their conclusion, but did express doubts about some of the statements and conclusions made by the authors. While looking through *We've Got Issues*, she exclaimed, "This is not correct," and "It all depends on who you listen to—he is just stating his own opinion, not any facts," in response to claims made by the author. When discussing her thoughts on the process, she stated: "When a book is informational, I sort of discount the opinion." She did not want to be influenced by opinions; she was more interested in the "facts."

Participant 3 was concerned about the methods used by the author of *The Crazy Makers* to reach her conclusions. Early in the process, she began to identify some of the author's research methods. She saw that a case study was being cited, and that the author was "going to throw some statistics around;" but by the time she reached page 30, she began to question the rigor of the methods used:

She's making all these statements about the rise in anxiety and children hurting themselves and SAT scores going down, but I don't know that she's building up a

really good, strong case, because there are a lot of other factors in the environment that could be doing that as well. She's got a purpose to serve; she's using these statistics to support her argument that we're not getting the right things that we need for our brains. I don't know that necessarily that she ... she hasn't made the statement here; I don't see it in here, anything to indicate, "Well, these things could be caused by something else." That is what I would look for in a scientific study. She would really say, "Well, we could have taken into account this, we could have taken into account that," but she's really just got facts and facts and facts lined up about poor nutrition doing things to you, what artificial coloring can do.

Later, she saw that the author cited numerous sources to back up her claims, but wondered whether those sources were of good quality. "She's got a lot of really legitimate points here, but I don't know how scientifically sound they are. She is definitely serving an agenda." Her doubts led her to describe the book as a "layperson's literature review of the current scientific articles in favor of [the author's] point of view;" she felt it was important to point out in her aboutness statement that she did not view the work as fair and balanced. It was only, "presenting the articles favoring her viewpoint," instead of including both sides of the argument. She felt the item was, "presented as entertainment," and "presented in a very biased fashion." Her skepticism about the research affected her ability to take some of the text seriously. "If I trusted the science in this book more, I would have been looking at those charts, but I wasn't." Without evaluating the charts and tables, she completely dismissed them. While these features might not have provided useful information to enhance her understanding of the item, completely dismissing a large unseen portion of the item is not helpful either. She admitted, "I know how I would treat it if I were reading it. But I don't know how I would treat it as a librarian. That sort of crosses a line there." She felt that there should be some statement of *Caveat emptor* placed on this item. "You can't take everything as neutral fact. All things are colored by the author's opinion." She felt that librarians should be concerned about protecting patrons from this type of work.

How could you even consider this as fact? I don't think the points are presented accurately and bias-free. I think that anytime an author purports to write nonfiction, everything should be as bias-free as possible. That's not reality, and in a collection, you would have to include that stuff anyway because people want to read it. It's out there. It's got some validity, but it is still biased. I think every librarian would want to pick this up and recognize that it isn't science; instead it is a persuasive argument. Should I really put it with the science books or is there a better way to index that? That gives it more of a popular reading spin.

Participant 3 had some of the same concerns about *The Death of Satan*, but after examining the text, she felt more comfortable with Book Three. "As I flip through it, I see more citations, which is good. He's backing up his arguments with other texts.... This seems to be a fairly academic book." When asked why she felt the third item was more trustworthy than the second item, she stated:

If I thought about it logically, I don't know that his references are any better than hers. But, I made the judgment that hers were lousy because of the title of the book and how the book read. I made the judgment that his are okay because of the dense nature of the text.... The density of the text is more convincing than the references—the look of the thing. It is the packaging. If I had to look at the covers of the three of these and tell you what they were about and which one was better, I would say *The Death of Satan*, but that's not necessarily true. It's all in the packaging.²⁵³

This is another example of the power of the visual image and the influence of the "packaging." To Participant 3, *The Death of Satan* is a scholarly work because it presents itself as scholarly, or, at least, it appears to her as scholarly.

Participant 5 expressed concerns about the "biased nature" of *We've Got Issues*, as did Participant 6, though they came at it from slightly different perspectives. Participant 5 was concerned about the author's lack of sources and was somewhat bemused by the content; Participant 6's distrust, however, was fueled by her intense dislike for the book. She disagreed with the approach, the tone, and the politics of the author, and continually questioned the origins

²⁵³ This passage was used earlier in this document to describe the participant's thoughts on the end features and the cover art and design.

of the information she encountered. At one point, she even asked, “Is she making stuff up?” Her opinion of the second item was somewhat higher. She noted early that *The Crazy Makers* included bibliographic references, which she took as an indication of seriousness of purpose. But she still had some doubts about the validity of the arguments. “It is interesting that she is connecting nutrition with brain function, but I don’t feel convinced she has any right to.” Her reaction to *Folklore and the Sea* was far different from her reaction to the first two books. Within moments of reading a few randomly selected sentences from the book, she stated:

There is something about the way those two sentences are written that tells me that I can trust, at least to some degree, what this guy is going to say, even if I disagree with some of it, in terms of politics.... I also picked it up and assumed credibility; I gave this book a much more instant assumption of credibility than the other two that I looked at.

When asked whether she paid attention to the author’s research methods, she replied:

In the sea book and the food book, I was pleased to discover notes and a bibliography. That reinforced the fact that it contained—that it wasn’t just some guy or some lady sitting in a room making things up—there was at least some amount of research and reinforcement. I don’t recall seeing that in *We’ve Got Issues*. It doesn’t seem that credible to me. It increases my expectation of credibility. In terms of research, I look at the bibliography and notes if they exist. If they don’t exist in them, I am not as likely to pick up the book.

Participant 8 had serious doubts about the information presented in *The Crazy Makers*. This lack of trust began early in the examination when he read the author’s statement about, “the increase in mental disorders.” This was a warning signal for this participant, who has an undergraduate degree in psychology. “I am instantly skeptical of the information in the book.” Although he felt it went to an extreme, Participant 8 did not doubt the authenticity of the nutritional information in the book; but, he had serious qualms about the author’s proposed cause-and-effect relationship between poor nutrition and brain health with the suggestion that poor diet leads to an increase in mental illnesses. Despite his attempt to “lay aside [his] skepticism in favor of figuring out what it

is about,” he continued to pick apart the author’s claims. This, as a result, took time away from the process at hand—determining aboutness.²⁵⁴ Participant 8 saw that the author had notes at the end of the book, but that did not change his opinion. “It has citations for all sorts of things. She does have some credible sources in here. It just takes some rather extreme positions from them.”

During the interview, Participant 8 stated:

I think with the second book, more than the others, I had trouble focusing on the figuring what it was about because I disagreed or had problems with the content and the statements the author was making. Because I didn’t regard it as a reputable or reliable book, I tended to write it off more, disregard it, and not take it seriously. I was distracted by the material.... I think I lost some objectivity on *The Crazy Makers* because I disagreed with some of the material that was in it.... It detracted from determining aboutness.

Participant 9 was also concerned about the methods and approach of the author in *The Crazy Makers*, as was Participant 10. Both considered the author to be exaggerating her point.

It was kind of a silly title, and also, *Destroying Our Brains*, which seems like exaggerating a little. I automatically was a little skeptical when I was looking through there because it seemed so extreme.

With a title as melodramatic as it is, some participants approached *The Crazy Makers* with a healthy skepticism. Participant 10, when asked about her thoughts on how issues of validity and research methods affected the process of determining aboutness, stated:

With *We’ve Got Issues*, a lot of the facts, I kept thinking, “Where did she get that?” It is not really well cited. What? I am supposed to just take your word that this a fact? They even have a section that had fact numbers; it doesn’t make any references to where it is coming from. I am not going to believe that. Same thing with *The Crazy Makers*, it tried to be factual with nutrition charts, but when you are telling me that something is destroying my brain, in that manner or that tone—instead of saying it could be harmful to your health, you are saying it is destroying your brain—obviously, that is going to affect how I feel. Same thing with *The Death of Satan*; I wondered what his religious view is and how his own personal experiences with evil affected how he talks about evil. I couldn’t read it on a scholarly, I-trust-your-opinion-completely way. It is partly because of the content (religious). So, that is something that you can’t necessarily assume—everyone is coming from the [same place].

²⁵⁴ This also occurred with Participants 5 and 6.

Participant 11 was not as concerned with the validity of the items, but did notice the methods that the authors used to support their points. About *The Death of Satan*, she stated:

I did see that it was well documented, lots of endnotes. That told me it was a well-researched, scholarly book, which may not be fair, because there were quite a few references in the others. But, it was written above an eighth grade level, which is where all newspapers are supposed to be written.²⁵⁵

Participant 12 also noted the use of statistics and the “the good homework” done by one of the authors. “She backed it up with evidence. I need to see facts, figures, experts, or prior texts.” Surprisingly, he was referring to *We’ve Got Issues* when he said this. This is in direct contradiction to the complaints of several of the participants who noted that Book One did not cite any sources and was primarily focused on the opinions of the author.

While these topics are not often addressed in the LIS literature of aboutness, the participants in this study were deeply interested in questions of validity and research methods. While three participants maintained a position (or a façade) of neutrality, nine participants addressed these issues directly. Their impulse to evaluate the materials, in addition to their task of determining aboutness, raises a question about how much these issues play a role in everyday subject analysis practice. How prevalent is this evaluative inclination?

5.1.3 Point of View

Eleven participants in this study addressed issues related to the author’s point of view or perspective. Many of the participants in the study were deeply interested in determining the point of view of each author, but others were only interested in determining the context or approach from which the author was addressing the material. This topic was brought up by almost all of the participants, but it, too, is rarely mentioned in LIS discussions of aboutness—at least not in

²⁵⁵ This passage was also used earlier in this document to illustrate the use of bibliographic references.

North America. Langridge and Swift, both Europeans, have included point of view as something to consider in determining aboutness, but they are in the minority.²⁵⁶ In the United States, subject indexing and classification do not include point of view when describing the aboutness of an item. Taylor mentions point of view in her subject analysis steps, but as something one might encounter when examining the introduction; she does not advocate seeking out this information or attempting to include it in translation activities.²⁵⁷ Weinberg also briefly mentions point of view among things to consider when indexing.²⁵⁸ Despite the scarcity of literature addressing this topic, the participants in this study were clearly interested in knowing where the authors were “coming from.” In *We’ve Got Issues*, this was primarily focused on political orientation. In *The Crazy Makers*, the participants were interested in the author’s “agenda,” and in *The Death of Satan*, participants were concerned with the author’s religious background.

Participant 1 had a mild interest in the political orientation of the author of Book One. On several occasions, she stated, “I wonder if this guy’s a Republican” and acknowledged that she was attempting to understand “where he is coming from.” Participant 2 was less interested in identifying a political party affiliation; she instead identified the author’s cultural and generational orientation. “I looked at point of view, because she was definitely coming from the perspective of a Gen Xer and how we should get more involved and concerned about these issues.” Participant 3 addressed point of view when examining all three items. While looking at the table of contents in *We’ve Got Issues*, she was already making assumptions about the author’s point of view, “I am guessing that this is an anti-current establishment book.” After

²⁵⁶ Langridge, *Subject Analysis*, 136; Swift, Winn, and Bramer, “A Multi-Modal Approach,” 91; Swift, Winn, and Bramer, “‘Aboutness’ as a Strategy for Retrieval,” 186.

²⁵⁷ Taylor, *The Organization of Information*, 247-255.

²⁵⁸ Weinberg, “Why Indexing Fails,” 3-6.

scanning the first few pages, she also made an assumption about the political orientation of the author and her readers.

I am going to guess, this is a pro-Democrat, anti-Republican look—although they don't look like they are going to be too kind to the Democrats either. These people usually never let the favored political party off any easier than they let off the one they really hate.

In addition to being concerned with the political point of view, Participant 3 also identified another perspective coming through the material.

According to this, Gen X is interested in making more money; we're not interested in politics; not interested in voting. I'm guessing this is a book urging Gen Xers to vote, based on the fact that because we are definitely interested in money, and if we are not careful, the government is going to take it away. I am definitely guessing that's what this is.... It's funny how it really appeals to money issues, because it seems like the Gen X and the next generation, it seems like it really appeals to their wallets because that's all we care about.

We've Got Issues never actually says this outright, but this is how Participant 3 interpreted the author's point of view and perspective. When she began to examine the second item, the first thing she stated was, "This is obviously another person with an agenda.... This is definitely slanted to the anti-food industry direction." Immediately, she made an assumption about the political perspective of the author. Later, she stated, "She's got a purpose to serve." For the final item, she was more concerned about how the author was approaching the subject, noting: "He's also talking about something that is more philosophical than scientific. You cannot really perform a study; that this is something testable. It is really more of a combination of philosophy and history." These statements addressed not only the way the author dealt with the content, but the overall disciplinary approach. After examining the three items, Participant 3 was asked if the author's point of view played a role in her process. She replied:

Yes, a little bit. Not so much from *The Death of Satan*, which came across as very neutral. Although he had an argument to make that was very buried under the stuff he was talking about. He had a purpose. He had a side. All three of these

books had that. So, I think that was sort of in there. Buyer beware—you can't necessarily take everything as neutral fact. All things are colored by the author's opinion.

Participant 5 was concerned with the political orientation of the first author and with the religious background of the third author. He stated, "I was interested in how she was putting together her argument and what she was buying into," but ultimately he could not tell if the author of *We've Got Issues* was a Democrat or a Republican. At first, Participant 5 thought Delbanco, the author of *The Death of Satan*, "was arguing from the lunatic—no, I guess I should say 'evangelical'—fringe." Then, the more he read, the more he saw Delbanco had a fascination with Augustinian thought: "So maybe he is Catholic. I am not really sure where to place him. That is probably why I had not as much understanding, because I don't know where he is coming from, and I think that helps me to determine aboutness." To Participant 5, point of view is a key part of determining aboutness; it helps determine where the author "is coming from." In other words, it provides much-needed context in aboutness determination. Participant 6 agrees. She interpreted all three items through a highly political lens and was the most openly concerned about the political perspectives of the authors. Point of view played a major role in how she determined what the books were about, but also in how she reacted to each item. It was the political perspective of Bagby that completely turned Participant 6 against *We've Got Issues*. After a few moments of examining the first item, she stated:

I haven't gotten the sense of what perspective she is coming from, except from the conversational tone. I assume that she, as an author, has a political perspective. In looking at the book, I am not getting a sense of what that political perspective is or what she is trying to accomplish.

Participant 6 was not so much concerned about the author being overtly Democrat or Republican, but by the fact that author was *not* identifying her political perspective or orientation. It was not the overt statement that concerned her; it was the possible covert motives

of the author that were more worrisome to her. Soon after, she read a passage describing the dead-end prospects of those without a college degree:

Let's face it, the money is not in being a Starbuck's barista, a Wal-Mart clerk, a Taco Bell manager—the only jobs now available to those without a high school diploma.²⁵⁹

In response, Participant 6 vented her anger about the author's opinions on socio-economic issues and education.

And that encapsulates why I don't like her. I could go on to some kind of political diatribe, but I won't. It is coming from such an assumption of upper middle class privilege, and that is imposed on me partially because of her picture. She looks too clean to have worked her way up. The expected audience is younger people who come from a middle class, upper middle class background. That is who she is trying to relate to, at the same time as pretending to be the everywoman.

As a result, Participant 6's aboutness statement for the *We've Got Issues* addressed both her major concerns about point of view and her feelings toward the item:

There isn't much depth to her analysis of the issues and limited amounts of context. She doesn't present her perspective, except that I inferred that she was a 20-something, upper middle class, privileged white woman. It was obviously directed toward the apathetic youth, ages 16-26, who reportedly don't care about politics or believe it concerns them. Its purpose was to reach this demographic and encourage them to get involved. I found it rather glib and off-putting, and very specific in scope of audience. There are large segments of the youth demographic that she has no relevance for.

While Participant 6 was somewhat more receptive to the two items that followed, her examinations were most likely colored by her experience with *We've Got Issues*. Both of the following items were examined through the same lens of political perspective, although it is unclear if this would have been the case had the first item not induced such ire. Her examination of *The Crazy Makers* focused primarily on the author's perspective on the material. Throughout her assessment of it, she was attempting to determine the author's approach: "It seems to be from a political perspective; it is not a pure nutrition book where it talks about just what's needed—

²⁵⁹ Bagby, *We've Got Issues*, 138.

how to eat enough celery to give yourself enough fiber, but about the relationship between childhood development and nutrition.” She noted later:

It does have a political perspective in the sense that the food manufacturing companies have a plot against America. It has nothing to do with personal choice.... I am clear on the perspective she is coming from. I still don't know where she gets her credentials to be writing this book. Oh, apparently methanol poisoning from aspartame is the possible cause of Gulf War Syndrome on page 187. I don't know why people who write diet and nutrition books always think their way is the only way.

When the author reveals her background, Participant 6 expressed relief to see that the author might actually be qualified to write the book. After finding out that the author was a nutritionist, she was more comfortable with Book Two, but her politicized approach continued into her examination of her third item, *Folklore and the Sea*.

I also want to find a way to get a sense of what his perspective is. Although the titles are interesting, if he has a Golden Bough-Frazier perspective on it, it doesn't matter how interesting the subject matter is. I am looking to see if there is at least some amount of neutrality, rather than a distinct, “look how cute the simple people are with their silly, silly beliefs.”

When asked about her process, Participant 6 mentioned perspective or point of view several times. “I made a lot of assumptions about who the author was; not so much their credentials or what school they went to, but who the author is in terms of their perspective. That's an important factor about whether I am going to like the book and what I think about it.” When asked if that perspective, slant, or point of view was necessary in understanding what the book was about, she replied:

I think yes and no. It doesn't explain everything; it isn't important in understanding what the book is about. It is more important in whether I like how the book is presented, which is sort of irrelevant to knowing what the book is about. I think understanding or getting a sense of where the author is coming from and their perspective helps me to determine the presentation of the information. And the perspective of the author naturally skews how they are presenting the information because they obviously have opinions and getting a sense of what

their opinions are, at least to a small degree, helps me to understand the context of the book.

Like Participant 5, she feels that without the point of view or perspective, context is lost, and that context helps with the overall understanding of the document.

Participant 7 was not as focused on this issue, but she did bring it up occasionally when she was examining *The Crazy Makers*. She noted:

- She's clearly going to come down hard on the food industry.
- She clearly supports breast-feeding.
- With *The Crazy Makers*, you get this impression of this fanatical or crazy hippie person.
- I took it more with a grain of salt. As in, not everyone is going to be able to puree their children's vegetables. You have to be practical about life.

While the author's perspective was addressed, it was not her major focus. Participant 8 did pay attention to issues of point of view and realized quickly that the first book was actually *about* the author's political perspective. He stated, "So, after reading the book, you realize or learn at least the author's perspective on what issues are important when selecting a political candidate or maybe working in politics." In other words, the purpose of the book was to look at important political issues. Who decides which issues are important? The author decides, of course. The book, therefore, is about what the author thinks are important political issues. With a subject such as politics, it is hard not to see a connection between point of view and aboutness. Participant 9 paid little attention to the perspective of the authors, but commented that Book One "looks somewhat leftist," which is never clearly addressed in the work. While most participants ultimately assumed a perspective from the left or a Democratic orientation, the author never addressed this issue directly, and some of her political positions did not reflect that orientation. The item's appearance, however, is somewhat "hip and trendy," which is often associated with

liberal or leftist politics, and usually associated with youth culture. Participant 9 made her assumption without much content to support it.

Participant 10 was interested in the political orientation of the author of *We've Got Issues*, but this was not the focus of her examination. "I still haven't gotten a feel for whether this is directed toward one political party or the other." In *The Crazy Makers*, though, she felt that she had more of handle of the author's perspective. "I can already tell what her position is on it. She is very against our current food industry and the way that we make and eat food." When asked to describe her process, Participant 10 stated part of it was "to find out information about who the author is so you kind of know where they are coming from; it will help you figure out what their position on their topic is." Participant 11 stated that she was curious about the authors' perspectives, but really did not spend time trying to figure out their points of view. Participant 12, on the other hand, was excited about the content in the first book. "It's political affairs-oriented, so I think it is hoping to interest me. I am automatically going to see where they are coming from; how they approach it." His first instinct, on seeing that the book dealt with politics, was to address the point of view of the author. Participant 12 felt that *We've Got Issues* "takes a balanced tone" and had "an even-handed stance." When examining Book Two, he was looking for a condemnation of the large food conglomerates; he was surprised to find it was missing. Participant 12 noted that the examination process and the determination of aboutness really were not that difficult, but his ease may have been because he was fundamentally sympathetic to the messages of all three books.

But none of these three books have really floated anything too radical or too unfamiliar that I am going to resist them. Most of these tend to be parallel to my judgments and personal proclivities. It is easier to be less critical; and it saves time, because you can sum up without having to do the critical work of dissecting the argument.

He did not challenge the aboutness of the items, because his thoughts were *simpatico* with the thoughts of the authors. Participant 6, however, can attest that when there are differing opinions on the topic, it can become much more difficult to determine aboutness.

5.1.4 Language, Tone, and Intellectual Level

All twelve participants in the study discussed these three interrelated issues: the use of language, the intellectual level, and the tone of the writing. One participant discussed these issues only when she was asked directly about them during the interview, while the eleven others brought these issues up themselves. Those who spontaneously commented on these issues primarily stated that language, intellectual level, and tone did not reveal to them the aboutness of the documents, but instead conveyed characteristics of the documents that were useful when conducting the aboutness determination process. They stated that these attributes provided context that helped them determine the aboutness. Participant 1, when asked about language and tone, stated about the third book: “I could tell by the grammar he used that it was something to be taken with more depth.” She was then asked if it seemed like more of an academic or intellectual work, she said:

Not academic, but something more serious—something more serious, not light. Not that the other two were light, but my 14 year old could read the first two books.... When I was reading the first book about Gen Xers, I was thinking to myself, “this is good but any Gen Xer I know would be far beyond this by now” or anyone that I would have any relationship with would be far beyond this. This would be something good geared toward a 16-year old, not a Gen Xer.... The third book was geared toward a deep thinker.

She felt that the intellectual level and the language of *The Death of Satan* were beyond that of a high school freshman. Others concurred with her opinion. Nearly every participant commented that *The Death of Satan* was a scholarly work, while the other items were for popular

entertainment. Participant 2 noted the lighter tone of *We've Got Issues* and the scholarly nature of *The Death of Satan*, but otherwise did not mention issues of language or tone. When she was asked if they played a role in her process, she replied:

The Death of Satan was definitely a bit more formal. *We've Got Issues* was a bit more sarcastic. I tended to look at that because it does appeal to somebody who's younger. *The Crazy Makers*, the language was more scientific, but yet, it wasn't too complex so that someone wouldn't understand it. I did pay attention to it slightly, but it really didn't have a huge effect on me one way or another.

Participant 3, however, was very much concerned with these topics and mentioned them frequently throughout her examinations. From the tone of the chapter titles in *We've Got Issues*, she got a sense of the author's point of view. "I am guessing that this is an anti-current establishment book." Later she stated:

This is a really flip book. This is one of those books that sort of looks like fact on the outside, but when you read—you just look—it's just trying to be clever and sarcastic.... This really isn't a serious academic book. We are looking at something you would pick up in a bookstore for beach reading and that hopefully you'd vote for Gore and not Bush.

Ultimately, she saw that the author's use of language and tone worked for the item, because it meshes well with the target audience for the book. "It is definitely written in a way to appeal to Gen Xers looking at this." When examining *The Death of Satan*, she stated:

I think this is more of an academic book, but the topic is so juicy that it is going to be of interest to the layperson who necessarily wouldn't be researching this topic. Looking at it, it is written that way. As though, we want this to be an academic book, but we also want to attract a wider audience. We want people to walk into a bookstore to pick this up.... The text is fairly dense but not unreadable. You would have to be a fairly intelligent layperson to really understand what is going on here, to really pick up information that would be useful to you.... The text is pretty dense. It's harder to talk about. I really have to look at it. If I want to know what this is about, I really have to take a look at the text, because it doesn't have clever little blurbs at the front of his chapters to tell me what's going on.... The third one was the densest and most academic.

In these statements, Participant 3 addressed several issues related to tone, intellectual level, and language. The first is that the use of language can help to place the book into an appropriate intellectual category or type, i.e., academic or popular works. She felt this particular work might be aiming for both. As she continued with the examination, though, she started to see that the language was, in fact, a little more “dense” than she originally thought. This affected her thoughts on the audience and the intellectual level of the work. She realized that it was not only an academic book, but it was also written with an advanced vocabulary; the language and vocabulary used went beyond that of the average reader. During her examination, she also recognized a consequence of the use of scholarly language on the process of determining aboutness. It is more difficult to determine the aboutness of a scholarly work with challenging terminology. It is harder to find key aboutness data and harder to piece it together to create an understanding of the aboutness.

I identify popular reading versus academic reading. The first two [items] are popular reading; the third one is definitely academic. The academic books are the hardest to read; those are the hardest to figure out what they are about, although the titles are usually very descriptive.

Her theory that academic works are more difficult to examine was supported by the performances of the eleven participants who examined *The Death of Satan*, which was simply harder to read and figure out; a large part of that difficulty is the author’s use of language.

Participant 3 stated:

On the third book, I was picking up a lot of philosophers’ and historians’ names that I didn’t recognize. Or, language that I didn’t recognize. Whenever you see vocabulary and it’s obviously crucial to what’s going on in the book and you don’t know what it is, that will make it even worse.

When asked what made *The Death of Satan* so difficult, she stated:

The difficulty came from the number of words and the language being used. The wordier and the longer the words are—it is still going to take you longer to read

longer words and understand what they are about. With this, to get a sense of the book, you need to be able to put the major sentence together and really look at a few. It takes longer. You're sloggng through all this language, asking, "What's this guy really saying?" ... You get bogged down in all the language.

In order for her to deal with the challenges created by the levels of language and scholarship, she had to adapt her examination strategy. For this particular item, she moved to a linear process. She also had to "skim the most text and read the most text to understand what the book was about because of the format of the language. There was no other way to do that." She ended up spending more time on *The Death of Satan* and examining much more of the text than she did with the other two items. Finally, when asked again if there was a role for language, word choices, and tone in determining aboutness, she stated: "None of those things determine what the book is about. They play a role in the authoritativeness of the book, but not in the perceived aboutness." Participant 4 would agree with Participant 3's statement. When asked the same question, she stated they did not really play a role. "Not really. *We've Got Issues* was more informal. It made it easier to read, but it didn't necessarily help me." To the same question, Participant 5 replied, "A little bit. *The Death of Satan* was written in a much more formal style; the other two are much more popular culture—easy to read." He found Book Three "a little bit frustrating" because discerning the author's purpose was more challenging. "The other two were pretty easy, pretty quick. They were definitely written for different audiences. I would imagine *The Death of Satan* is geared to a college-educated crowd, whereas the other two were popular culture books."

Participant 6 paid more attention to issues of intellectual level, language, and tone in her examination than most of the other participants. In the very beginning of her examination of the first item, she stated, "This book, *We've Got Issues*, the cover reminds me of a Chronicle Book. They publish mostly reprints and it's, oftentimes, rather glib and pop culture with a retro sort of

thing.” She stated that whenever she first looks at a new item, she likes to read a few passages “to see if the style of the book and the way it is being presented engage” her. The tone and language of Book One did not engage her. It, in fact, appalled her. The following is a list of statements based on her reaction to the use of language and the tone in the first item.

- I don’t know that I like the conversational tone it’s taken so far.
- She uses the word “slacker,” which I think I am hesitating about this, because it has a conversational tone and the use of the so-called vernacular that dates it quite a bit. “Slacker”—I don’t know if the kids are talking like that now.
- She’s trying to address very meaty, difficult subject matter and doing it in a glib, common denominator way that doesn’t work for me all the time. I think there is a way you can present information intelligently and conversationally; you don’t have to pull out slang terms in order to get the kids to listen....
- Maybe I am in the wrong kind of mood, but the tone of the book is not drawing me into it at all or making me want to hear anything she has to say.
- Tax Moola? I don’t mean to keep harping on the tone, but it is annoying.

She continued her criticism throughout her examination of the rest of the book. Her focus on language and tone lessened for the second and third items. She only noted the easy language used in Book Two and the scholarly language used in *Folklore and the Sea*. When asked about the role of writing and language in the process, she pointed out:

You can write about all of the issues for an audience of six year olds or middle-aged people. You can write about the same content, but it does change for audiences and presentations; it does have to affect, to some degree, the content. Part of the reason *We’ve Got Issues* made me so angry is that there is an assumption that you have to dumb it down for that age group. If it had been written with a 42 year old in mind, it wouldn’t have been so glib. There might have been an attempt to go deeper into the issues.

Participant 6 primarily used the language and tone to help identify the author’s approach, intellectual level, and the audience for the work. “I think that is how it helps me is with the seriousness and the tone. The presentation and the grammar validate my trust in the information that is being presented, which seems to tie together.” With Book One, she realized that “the conversational, glib tone” bothered her, and that it affected her ability to gather information: “I

am having a hard time making a separation between what the book is about, and how it is written.”

Participant 7 noted the humor and sarcastic tone of *We've Got Issues*, but had little else to say about the writing. “And it doesn't feel like the book is going to be very ‘textbook,’ but she will instead use real world examples and bring some humor to it. Making it something young people can approach.” She primarily described these issues in terms of their effect on her ability to determine the aboutness of the work.

The last one, *The Death of Satan*, I had more trouble with than the others. It didn't seem as straightforward and it seemed to be written on a much deeper, heavier level than the other two. So, I read a lot more of the text in that book than I did in the other ones.... It is really dense text, so I had trouble in that book because its introduction was 20 pages and it wasn't light hearted. *We've Got Issues* was funny and light-hearted and her point was to teach an apathetic group. So, she had to have sharp points and wit. *The Death of Satan* clearly was waxing poetic on some of these things.... It is more dense in his writing. Each word seems to be important.

This participant, too, felt that she spent more time examining the item's text in order to determine the aboutness. She stated that the more scholarly the book is, the more text one will have to examine in order to understand the aboutness. Participant 7 stated that the author's use of language and the intellectual level both played roles in the process.

I think it was easier for me with these two books—*The Crazy Makers* and *We've Got Issues*—to reiterate what I thought the book was about. What I already thought this book, *The Death of Satan*, was about was evil. I don't think the text helps me as much, because I had to really read it and think about it. It was hard to pick sentences out. It was very dense; it was very interrelated; whereas these two books were written on a lower intellectual scale. So, it made it much easier to pick out key concepts. I was able to reiterate what the book was about.

Participant 8 paid attention to the tone of the first item. He stated that the author was “trying to be clever” and she made “another attempt to make it funny.” He also stated, “I consider *We've Got Issues* as more of a popular work than a work from a discipline. It wasn't written by a

political expert or government employee, but by someone who cares about politics, which could be anybody really.” He noted that *The Death of Satan* “is a much denser piece, closer spacing, and fewer illustrations.” He stated, “It was harder to get through that one, because there was more material, regardless of page count. More ideas, denser ideas, and more densely packed text, so it was slower doing that one, but I didn’t feel like I was having difficulty with it.”

Participant 9 felt that there was clearly a pop culture sensibility to *We’ve Got Issues* that was reflected in its use of language. She also felt that its cover was rather kitschy. That, combined with the pop culture sensibility, indicated to her this was “a bit of a lighter book.” She thought it was “aimed to a younger sensibility.” She associated this orientation to Generation X, but quickly wondered if the phrase *Generation X* was still being used today. Like Participant 6, she felt that the language dated the material. She concluded that *We’ve Got Issues* was a book that, “the average person could read with a certain amount of ease—[it is] not necessarily scholarly.” She, like the other participants, felt that *The Death of Satan* used “more formal language, and is probably not intended for a general audience.” It was more difficult to analyze

I didn’t feel that by skimming it that I could get a good idea of what the book was going to say. It was not necessarily that the author was unclear, but just that the other books were less dense to me, and *The Death of Satan* seemed a lot more dense. It is not necessarily a harder read, but you would have to be more focused and more dedicated to read that.

Participant 10 stated that she felt that *We’ve Got Issues* was “easy reading;” she stated, “It doesn’t seem very factual.... I wouldn’t necessarily say this is a very scholarly book; it is much more of a social commentary.” She noted that the author’s tone was “irreverent.” She also identified the writing in *The Death of Satan* as “scholarly.” When asked about how difficult the process was, she replied:

The first book was much lighter reading, so it had a lot more section headings in each of the chapters; so, you could easily pick a couple of those out to figure out

what the book was about. Whereas the last one was much thicker reading, so you really didn't have as much of that to do.... It got more difficult. It was definitely harder [with the last book]. I think there are some books—because of the way they are written, because of what they are about—that are much easier to tell right away what it is.

When she was asked about the author's use of language, Participant 10 stated that it was helpful in determining aboutness. "They give you a feel for the author's commentary, whether it is a serious tone or a lighter tone." When asked how much of a role tone plays, she stated:

I would say a big role. If something is presented to me very clearly and concisely and in a direct way, then I am going to get more out of it; whereas, if something is written humorously and irreverent, I am not going to take it as seriously. If something is written using really big words, some authors think they will sound like they know what they are talking about; sometimes it has either the effect where it appears important and I think it is important, or that I realize how unimportant it is. Either way, it is going to persuade me in thinking one way. The tone is definitely going to persuade me into feeling one way or another about it.

When asked if there is a role for tone in the description of the book in library practice, she stated that she did not know, but probably not:

I don't think I would want someone to tell me that this book is sarcastic right up front. I think I would want to decide. So, I don't think it is the library's role to interpret that much. They are already putting their two cents in, but they don't need to say, "This is funny." Your funny might not be my funny; so, don't tell me that. Tell me a topic; don't tell me how I should feel about it.

Participant 10 also noted that the cover designs helped her to distinguish between the intellectual levels of the works.

If you look at the covers of the books, that's another way you could see. That first book, *We've Got Issues*, you could look at the cover and you could easily get a sense that it is going to be fun. It's going to be pop culture, whereas with the last book, *The Death of Satan*, it is going to be much more serious, even though the pictures were kind of funny.... It is definitely academic.²⁶⁰

Participant 11 seemed to disagree with Participant 10 regarding a role for tone in the description of the item's aboutness. She noted that the first item contained "a lot of satire and a lot of tongue-

²⁶⁰ This quote was used earlier in the document to illustrate the influence of cover art and design.

in-cheek discussion,” and included this in her final aboutness statement by using the phrases, “colorful look,” “entertaining,” and “in a manner appealing to the X generation.” She included this because, “You don’t want some father to buy this for his teenage daughter thinking this is great for a kid. But, in the same regard, you want to say that it is fun, so a younger adult would be inclined to read it.” She, like the other participants, identified Book Three as “a well-researched, scholarly book,” and that makes it “harder to skim.” She also noted that *The Death of Satan* “was written above the 8th grade level ... where all newspapers [are] supposed to be written.” She felt that the nature of the writing influenced whether one could understand the aboutness of an item or not.

I think it is the writing because he does mention in the conclusion what it was about, but he didn’t really say it clearly. To me, what I was looking for was the purpose of the book.... That’s what I couldn’t pick up in *The Death of Satan* from just skimming it.... It definitely hindered me on *The Death of Satan*.

Participant 12 included language, tone, and intellectual level as elements in his examination strategy. While looking at the table of contents in Book One, he stated, “it’s witty; there’s wordplay in the table of contents.” He also noted the use of language in Book Two’s subtitle: *How the Food Industry is Destroying Our Brains and Harming Our Children*. “It is reactionary language. To destroy is really to obliterate, damage.” He was also surprised by the lack of humor in Book Two. “It feels a little more earnest, it feels a little more genuine, more serious, which puts me off a little more. It’s got a more serious tone.” When he reached Book Three, he noticed the difference in appearance.

This is a hardback, severe, simple dark color. It seems to be more academic, a little less pop culture; a little less how-to. It is more of an academic rumination, especially considering the title: *The Death of Satan*.²⁶¹

²⁶¹ This quote was used earlier in the document to illustrate the influence of cover art and design.

This item, unlike the others, had a hardback cover, which he saw as a sign of a more academic work. To this participant, a brightly colored, paper cover is an indication of an item firmly planted in the popular culture side of the intellectual-pop culture divide.

The crazy colors and the repetition of the hamburgers, Xeroxed looking images, they are all very pop. The simple forms, the repetitious forms, the bright bold colors, those tell me it is not necessarily going to be particularly imaginative, provocative, intellectually stimulating.... It is going to appeal to a popular, wide audience.²⁶²

He, too, decided that he needed to approach this scholarly item differently. “I am immersing myself in the text here. There’s a more complex tone, a richer range.” He saw that it contained, “some academic arguments.... It is a very scholarly work. Instead of drawing on stats, he tends to draw on illustrations, both historical and [literary].” He felt that with something this rich, “skipping around will probably get you lost in the more complex argument; not able to figure out where you are.” While looking at *The Death of Satan*, he stated that before he tried to get a sense of the aboutness, he wanted “to establish the tone and cadence of the presentation.”

According to participants, tone, language, and intellectual level do play roles in the determination of aboutness. They are not necessarily related to the subject matter directly, but each can affect how the subject analyst is able to navigate the items that they are analyzing. Some felt that tone and intellectual level could, and should, be communicated through aboutness descriptions, but others felt they had no place in the process. Some participants felt that the contextual information gained by an understanding of tone, language, and intellectual level was invaluable to the aboutness determination process.

²⁶² This quote was used earlier in the document to illustrate the influence of cover art and design.

5.1.5 Author's Background

Ten of the participants were concerned with the authors' backgrounds while analyzing the items. Because the back covers of *We've Got Issues* and *The Crazy Makers* were blacked out, the information was not readily available to the participants without further investigation. Participant 1 was interested in determining how Simontacchi, the author of *The Crazy Makers*, came to her positions on the issues. She wondered several times whether the author was a nurse or a nutritionist, and also was curious about the age of the author. Participants 3, 5, and 6 were also interested in determining Simontacchi's background. They also tried to figure out whether Bagby, the author of *We've Got Issues*, was a Democrat or Republican. Participant 6 had her doubts about Simontacchi, because she could not find a statement of the author's qualifications to write the book:

I am not sure how that qualifies her to write this book, if she is not telling me how she is qualified, other than she changed her health through changing her diet. She is coming at it from a very personal perspective.... I haven't been convinced that I should believe that she knows what she is talking about, other than that she cares about it a lot.... I still don't know where she gets her credentials to be writing this book.

When she finally saw that the author was a nutritionist, she stated, "That's good." Participants 7, 8, and 9 noted the qualifications of this author when they examined *The Crazy Makers*, but did not speak further on the matter. Participant 9 was also interested in the background of Delbanco, the author of *The Death of Satan*. She wondered if his background was in theology or in the social sciences. Some of the other participants were interested in Delbanco's religious background. Three participants noted his statement that his parents were Jews who escaped from Nazi Germany, but expressed no further curiosity after that. Others thought it interesting that he quoted St. Augustine and wondered if he were a Catholic.

Participant 10 showed interest in Bagby's age, as well as her political orientation. "Again, she is saying 'our generation.' So, it is targeted to a certain generation and there are a lot of references to pop culture." She was also interested in the professional background of Simontacchi and the religious background of Delbanco.

I was trying to gain a quick idea of what the author was trying to say. I think by looking at broad things like title and trying to find out information about who the author is—so you kind of know where they are coming from—it will help you figure out what their position on their topic is.

Her statement points out the relationship between author's background and author's point of view. This association is very logical; one may lead to insights into the other. Both allow the participant to gain a better understanding of the context in which the books were written.

Participant 11 showed only minor interest in the background of Delbanco, noting that his parents fled the Holocaust and that the author began the book at the National Humanities Center. She obtained this last bit of information from the acknowledgments in the back of Book Three. She was the only participant to look at the acknowledgements in this item and was, therefore, the only one to be aware that the item stemmed from a humanities background. This, however, was not reflected in her aboutness statement. Of the three authors, Simontacchi was the object of the most speculation. Of those ten participants concerned about background, eight were curious or concerned about the background of the author of *The Crazy Makers*. This may be related to the item's form of knowledge: science; because this item was purporting to be science, the participants may have felt it was more important to understand the author's qualifications to write authoritatively on the subject matter. It raises a question about how different types of materials may require different sorts of examinations, or perhaps, that there are concerns related to the different disciplines or forms of knowledge that should be addressed in the process. This is an area for further study.

5.1.6 Audience

Eleven participants were interested in identifying the audience for at least one of the three items they examined. Only Participant 8 did not address this issue. Audience is not a frequently mentioned concern when discussing aboutness determination, but perhaps it should be. Of those writing about aboutness determination, only Langridge addresses this issue. He includes audience in his discussion of the “form of thought,” and it may also appear as the answer to his third subject analysis question, “What is it for?” Few others address this concept at all.

The participants’ focus on audience primarily appeared during their examinations of *We’ve Got Issues*, but it did arise in the other examinations. This concern for audience, however, may not be an organic interest. It may stem from their exposure to the first item, in which the concept of audience is built directly into the aboutness. Bagby identifies the book as being written to inform Generation X of political issues important in the 2000 presidential election in the United States. The inclusion of the audience in the aboutness of this book may have forced this characteristic to the forefront of participants’ concerns, whereas if this book had not been used, it may never have arisen in their processes. The answer to this question is unknown, as it is impossible to obtain an uncontaminated answer from the participants. This, of course, could occur with any number of the other concepts as well.

Participant 1, shortly into her examination of Book One, identified the work as being “geared toward young adults.” She repeated this several times before refining that statement to “Generation X.” She was asked if she considered the audience of the work in her examination. She replied:

This would be good geared toward 16 year olds, not a Gen Xer. The second book I was thinking about a mom reading the book, a pregnant mother, or a mother of young children. The book was geared toward a young middle age person. I was

thinking that the reason that they left out the part that was obviously missing (seniors) was because she was gearing it specifically for those people. It was even evident that she was. The third book was geared toward a deeper thinker.²⁶³

While she mentioned audience during her examination of *We've Got Issues*, it was never mentioned in conjunction with the other books, and it was only addressed when she was asked about it during the interview. She included, "Generation X," in her aboutness statement for Book One, but did not include the audiences for the other items.

Participant 2 primarily identified the audience for Book One by the use of its internal visual features. "Again, more pictures of young people, so it looks like this is marketed toward a younger generation." A few pages later, she stated, "Again, more young people, so that's really who the target market is." She, too, did not focus on the audience for either of the other two items, except to mention, "*The Crazy Makers* was probably for a parent. *The Death of Satan*, I am not really sure who it's for," when she was asked about the role of audience in aboutness determination. She also made a connection between audience and point of view. She stated that in the first book, she looked at point of view, because the author "was definitely coming from the perspective of a Gen Xer and how we should get more involved and concerned about these issues." She related the point of view, not necessarily just to the individual author, but to the group to which that individual belongs. Other participants made the same connection.

Participant 3 noted the audience numerous times during her examination of Book One. Early in the process, she stated, "Okay, it looks like it's aimed at Gen Xers here," and then quoted the author: "Our generation is making it where it counts—not in creed or controversy, but in shares and silicon." She interpreted this statement as an indication of the author's and the

²⁶³ Part of this quote was used previously to illustrate the participant's thoughts on intellectual level of the work, which, of course, is related to audience.

audience's points of view. She, then, examined the rest of the work within the context of knowing the audience. At various points during the process, she stated:

- “It is definitely written in a way that would appeal to Gen Xers.”
- We are definitely aiming for a Gen X audience, and maybe hitting on a Gen Y too.
- There are actual references to Gen X concerned about paying for our parents’ retirement.
- It is funny how it appeals to money issues, because it seems like the Gen X and the next generation, it seems like it really appeals to their wallets because that’s all we care about.

She included the phrases, “written for a Gen X audience,” “designed to present these issues to Gen Xers,” and “appeals to Gen Xers’ desire to accrue wealth and to retire comfortably” in her aboutness statement for Book One. In her statement, and later in the interview, she made connections between the audience and the design of the book.

The graphics and layout give it a hip feel. If you present a Gen Xer with a book that looks like *We’ve Got Issues* and a book that looks like *The Death of Satan*, and ask them to pick one of them from which to get political information. They will immediately go to *We’ve Got Issues* because it looks cool, not *The Death of Satan* with no pictures.²⁶⁴

When asked directly whether audience played a role in the process, or if was just auxiliary information, she replied:

Yes. I think audience does directly influence aboutness. A book could be about different things to different people. I think there are hidden sub-layers in there. The first book, for a Gen Xer, is about cutting edge politics, but for an older conservative, it is about how the younger generation is going to hell. It’s got that extra layer in there that differs for people other than the intended audience. You have to put yourself in the shoes of the person who would naturally be drawn to that book to tell what it is fundamentally about.

How one does that, however, is not explained and seems untenable. Her statement of putting oneself in the shoes of the audience is reminiscent of two discussions in LIS literature. It is similar to the idea of use-based aboutness, in which catalogers and indexers are to predict and

²⁶⁴ This quote was used earlier in this document to illustrate the impact of cover art and design.

consider all of the possible current and futures uses of a document in order to understand the aboutness and assign descriptors. It is also reminiscent of arguments about intensional aboutness, in which there can be many meanings for one person or many meanings for many persons. Participant 3's idea, like these two concepts, requires the information professional to prognosticate. The researcher believes these approaches are unfeasible; they require the cataloger or indexer to predict what a document may mean to all members of a sometimes unidentified, intended audience, or even to an unintended audience. Participant 3 did not attempt this, even though she suggested it.

While Participant 4 was uninterested in most of the other content characteristics, she did include audience in her evaluation of the first item. She recognized that it was directed toward “young people,” a “new generation,” or a “younger generation,” but she did not include any of these in her aboutness statement. She simply stated the book was about “some of the political issues that Americans should be aware of.” This does include a type of target audience—Americans—but she completely left out the generational aspect. When asked about the role of audience, she stated that she considered it only in *We've Got Issues*. “In the context of the election, it was for younger voters. That came up. She was targeting that audience. The other two, it didn't come up.” She could not explain why she left it out of her statement.

Participant 5 included audience in his aboutness statement for Book One, but did not in the statements for the other two items. He saw the audience primarily in terms of intellectual levels, stating, “They were definitely written for different audiences. I would imagine that *The Death of Satan* is geared to a college-educated crowd, where the other two were popular culture books.” When he was asked if audience affected aboutness, he replied, “In the aboutness, no, but it was very apparent that these are books aimed at popular culture. *We've Got Issues* is probably

aimed at a younger set.” Despite believing that audience does not affect aboutness, he did include “Generation X” and “youth” in his aboutness statement.

Participant 6 addressed audience in her examination of *We’ve Got Issues*, as well as in her aboutness statement for that item. Her biggest issue was that she felt that the author really did not represent that audience well. At various moments, she pointed out that she did not feel that the ideas of the author were representative of a member of Generation X and that the author seemed much older than how she represented herself. When asked whether audience was an important part of determining aboutness, she stated:

There is content and then there is the way the content is presented. Does her use of audience change the content? The simple answer is no; it doesn’t change the content. You can write about all of the issues for an audience of six year olds or middle-aged people. You can write about the same content, but it does change for audience and presentation; it does have to affect, to some degree, the content. Part of the reason *We’ve Got Issues* made me so angry is that there is an assumption that you have to dumb it down for that age group. If it had been written with a 42 year old in mind, it wouldn’t have been so glib. There might have been an attempt to go deeper into the issues. Then, the content would have been affected by the audience. If it was for a different age group or class group, the issues would have been presented in a different way.²⁶⁵

In her thoughts, the two concepts are intertwined and it is hard to separate aboutness from audience, or from the tone, language, and presentation.

Participant 7 paid the least amount of attention to audience, but she did include the concept in her aboutness statement for Book One. “This book is about attempting to educate and interest young adults in their 20s and 30s....” She pointed to the visual features as an indicator of the audience. “They had pictures there, to help me reinforce my mind that it was this Generation X-type group.” When asked about audience, she stated that she considered audience only with *We’ve Got Issues*. For the other two, she did not think about it. She stated that if she were to

²⁶⁵ Part of this quote was used previously to illustrate the participant’s thoughts on intellectual level of the work, which, of course, is related to audience.

think about it, she would say that *The Crazy Makers* was for “parents or people who work with children,” and that *The Death of Satan* would be for a more educated and possibly Christian audience.

Participant 9 quickly recognized the audience for Book One and related it to the “pop culture sensibility” she spotted throughout the book. “I would say that is pretty indicative of Generation X.” She did, however, question the currency of the item noting, “You don’t really hear ‘Gen X’ anymore. I think this was written in that time where that was a popular phrase.” She was also one of the five participants to point to a particular audience for Book Two. When she was asked about the role of audience in determining aboutness, she responded that it does have a role.

For *The Crazy Makers*, it could be for everyone, but I had the impression it was for mothers, when I was going through. It says, “*Our Children*” and that is a sign for moms. I think anybody could read it, but especially with the recipes in the back ... I think it does [affect aboutness]. She’s not just necessarily describing what she thinks is the problem, but she’s telling people how they can fix the problem. I think that alters the scope of the book. It’s not a passive book; it’s an active book.

She did not, however, include this audience in her aboutness statement for Book Two, even though she included the audience in her statement for Book One. When asked about the difference between the two examinations, she replied:

In *The Crazy Makers*, even though I had an idea that it was for moms, it seems like anybody could read this book. But with *We’ve Got Issues*, it seems like a sixty year old would not pick this up to read. They are not going to be the same—have the same issues to care about.

The difference was the applicability of the content to other groups or the general public. While she did not include *an* audience for *The Crazy Makers*, she did include *the* audience for *We’ve Got Issues*. No other participant made this distinction—even those who identified an audience for the second and third items. Participant 8 took this one step further. He felt that audience

should be left out of his aboutness statements altogether. He chose not to pay attention to audience in his statement for Book One, even though he saw several passages that indicated that it was for members of Generation X. When asked why he did not address audience in his statements, he replied: “Just because it is written with a particular audience in mind, does not necessarily mean it is about that audience or that it should read strictly by that audience.”

Participant 10 identified an audience for the first two items. Unlike Participant 9, Participant 10 did include the audience in her aboutness statement for Book Two. “The target audience is parents, as it contains advice on what to buy and what not to buy, as well as containing recipes.” When asked if she considered audience in her process, she replied:

Yes, definitely, [for] this one, *We’ve Got Issues*, there is a targeted generation, so there were all those references to things that that generation is going to know about. This one, *The Crazy Makers*, there is the parent aspect. She is talking about breastfeeding; a single male is not going to care about breastfeeding.

Participant 11 also included Generation X in her aboutness statement for the first item. She stated that she did not consider audience except in the first book. She stated she wanted to include in her statement that the book “was written in a particular tone for a particular group of people.” Participant 12 noted that Book One “is aimed at Generation X, getting them politically active,” including it in his aboutness statement for *We’ve Got Issues*. He stated, “I am analyzing this too much, but you always want to look beneath the surface to the author’s intent and who their audience is intended to be.” He did not address audience in the aboutness statements for the other two items.

According to most of the participants, audience is a key concept to include in the process of determining aboutness. Audience affects the nature of the writing and the language used to communicate the ideas of the author, and it might affect the content as well. A book about dogs written for an adult audience and one written for a third-grade audience will differ from those

written for breeders and veterinarians. In short, the audience can affect the nature, the amount, and the approach to the content. This, however, has been infrequently addressed in the LIS literature of aboutness.

While the participants find the concept useful in determining aboutness, whether it belongs in the final descriptions of aboutness, however, is not as agreed upon. Some felt it was important to describe in their statements, while others omitted the information altogether. Mostly, the participants included audience when the book was written for and directed toward one particular audience, and they excluded the concept when the item could appeal to multiple audiences or a more general audience.

5.1.7 Structure of the Content

All twelve participants expressed interest in the organization or structure of the content. Just after receiving an item, the participants often attempted to determine how its content was laid out. This was accomplished by reviewing the structure of the text itself and by reviewing certain bibliographic features that reflected the organization of the text, such as the table of contents, chapter sections, etc. Issues related to the organization of the content were raised in response to both the presence and absence of structure. Most often, participants raised this issue when comparing the less evident organization of *The Death of Satan* to the more blatant structures of *We've Got Issues* and *The Crazy Makers*. The bibliographic structures of the first two items attracted the attention of the participants, who took advantage of those structures to find and note aboutness data. Most participants expressed appreciation for the section headings found within chapters and for the clear divisions between the chapters themselves. The chapters in the first two items, while certainly interrelated, were separate bibliographic units with clearly delineated

content boundaries. In *We've Got Issues*, each chapter reflected a different topic within the broad scope of the summarization-level aboutness. *The Crazy Makers*, while not dealing with separate topics, structured the narrative around different stages of human development, and divided the content into chapters based on those stages—again, a logical division of the content. *The Death of Satan*, however, lacked the rigid, yet accommodating and informative, bibliographic structures within chapters; instead of using section headings, section numbers identified where a new section of the text began. No summarizing statements or informative chapter titles were found in Book Three. The chapters had no clear boundaries; thoughts continued beyond the chapter structures. The content organization was not obvious, or even noticeable, to most participants; only a few identified the chronological progression of the content through the chapters. This is partly due to discussions of major concepts that were extended across adjoining chapters. Some participants, consequently, could not identify the relatively linear progression of Delbanco's argument.

Participant 1 stated that she found *The Death of Satan* to be more difficult, “because it was written in a way that it wasn't easy to pick out words,” even though she, “did the same process of looking at the table of contents, and seeing how the book was laid out.” She felt the content was obscured by the text's structure. Participant 2 agreed. When asked if she tried to do the same things with all three books, she stated that she could not, because the texts were not organized in the same ways.

No, *The Death of Satan* did not have a conclusion. So, it was a lot harder. *The Crazy Makers* had good conclusions, so you could sum up what was happening in the chapter, even though you were just skimming over the chapter. You couldn't do that with *The Death of Satan*. You really couldn't even do that with *We've Got Issues*, though with it, the [table of] contents gave you a good idea of what the book was about. *The Death of Satan* really didn't because it was broken up into Part I and Part II. Even the chapter headings didn't really give you any idea. So,

each one I had to do a different way. *The Death of Satan* was the hardest one because you really couldn't derive any information from just skimming.

To determine what the books were about she stated that she looked at "what flows from here to here." She stated, "In *The Crazy Makers* and *We've Got Issues*, I could really see the progression they were making. So, yes, I was looking at the glue." Her statement reflects Wilson's fourth approach to aboutness determination: selecting the themes or elements that hold the work together.²⁶⁶ She, however, could not do this with *The Death of Satan*.

Participant 3 was one of the few participants that spoke of and used the chronological structure of the text in *The Death of Satan*. In fact, it greatly affected her examination of the item. While for the other items, she used less-structured approaches to examining the items, for Book Three she felt a linear approach was necessary.

He was obviously presenting everything in a very linear way. So, I wanted to make sure that where he started progressed in a consistent way. I didn't want to think that he was spending equal time on many different parts of American history, when in fact, the book was about half about the Salem witch trials and the other half on the Holocaust. I wanted to verify that there was other stuff in there too. And he was giving about the same amount of page space to each.

About *We've Got Issues*, she stated she was not sure "how useful the layout is to conveying the content." She did not like its organization. Participant 4 also found *The Death of Satan* to be the most difficult to examine because of its structure.

It didn't break down the information like *The Crazy Makers* and *We've Got Issues* did. It didn't have these specific chapters with a concrete title that was going to say ... with sections that said exactly what the chapter was about. Those sections make it a little easier and more obvious. They are telling me exactly what the chapter is going to illustrate for me. *The Death of Satan* didn't do that.

When skimming *The Crazy Makers*, Participant 6 found that the structure was obvious because the chapter titles reflected the individual stages of human development. From seeing the

²⁶⁶ Wilson, *Two Kinds of Power*, 85-89.

progression of the chapter titles, she understood the structure of the content and how the content was presented. She found the structure of Book Two, especially the chapter titles and the section headings, to be helpful in finding information and determining the aboutness of the item.

I am not a go-through-the-index-and-table-of-contents person. The structure of this book does give me a lot of information about the content, but I have to trust it. *We've Got Issues* pissed me off because I couldn't trust it; the [chapter] titles didn't match the content at all. It wasn't so much misleading, but so pop-culturally specific that they didn't make sense to me. This book, *Folklore and the Sea*, I feel as though I can trust the fact that the information that is presented to me actually relates to the chapter titles.

Participant 7 noted that the structure of the text in Book Three made it more difficult to examine. While the first two books were broken up into manageable chapters, with section headings that described the contents of those sections, the more complex content of *The Death of Satan*, with its minimal use of bibliographic structures, made finding key aboutness data more challenging. There were fewer guideposts along the way, which made the process more difficult. She felt that the sections headings in the first two books were very helpful, because, "It creates a flow in the book." While the chapters in *The Death of Satan* contain sections, they lack descriptive headings. She stated, a section heading, "gives you a break in the page, and you think: Here is a new thought. I can start my process of [examining the] first paragraph and last paragraph again." But, she found that the content of the sections were not as easily discernable without the descriptive headings.

Definitely having a title on your subsection helps. I had a harder time with *The Death of Satan* because the way he writes is very...what I am trying to say is that *The Crazy Makers* and *We've Got Issues* have sections more. Each chapter is independent of the others. In *The Death of Satan*, it seems to be one huge commentary on evil. Even though I clearly remember the sections, they all seem to run together. It seemed like they [the section divisions] weren't really necessary from what I saw. I could pick up *The Crazy Makers*, read a chapter, glean some information, and know what she's talking about. In *The Death of Satan*, reading one chapter, I would be so lost.

Participant 7 stated that using the structure of the text was an important strategy for determining the aboutness of an item. She felt that she knew where to look for aboutness data because she had been taught to write in school. Knowledge of writing and text structures helped her to discover the aboutness; she knew that, “thesis statements tend to be at the beginning or at the end.” She was taught this in writing classes where it was stressed that an argument was structured in the pattern of “analysis—detail—detail, analysis—detail—detail.” She felt that this has influenced how she reads and looks for main ideas in texts.

Participant 8 also used the structure of the content to determine the aboutness of the items. He felt his overall approach was to look for aboutness clues in the content and the bibliographic structures. “I was drawing clues from all of those, looking for the components of the single idea or the larger idea that the book was about.” He stated that he used both a structural and a content-based approach. He was unsure, however, if he got as much helpful information from the content as he did from the index, the headings, and other bibliographic structures. He felt that in future examinations he might spend more time examining the structural elements, because using them might result in a more efficient process for determining aboutness.

Participant 9 found the structure of *The Crazy Makers*, based on the stages of human development, to be particularly helpful. She did not, however, find comparable, identifiable, organizational structures in the other two items. Participant 10 agreed with her. She, too, found that *The Crazy Makers* was “pretty structured.” When she turned to the third item, she expected more of the same in *The Death of Satan*. She noticed from the table of contents that Book Three was “broken into two different parts: the first is The Age of Belief and the second is called Modern Times.” She stated, “It looks like it’s going to be a historical perspective, and then, looking into the present and future.” When she started to examine the actual content, however,

she found, “it is much harder, because there is not as much structure to it.” She knew from the bibliographic features that it was a chronological, historical approach to the concepts, but because the text “is not broken down very well,” she needed a method to extract relevant aboutness data. To do this, she began “targeting first and last paragraphs to see what is going on there.” This strategy was fairly successful. Participants 11 and 12 also identified a general, historical approach in *The Death of Satan* from the table of contents. They, like the other ten participants, found it to be far more difficult than the other two items because its internal content structure was less explicit.

It is clear from the participants’ experiences that with more bibliographic features and more explicit manifestations of the content structure, the easier it is to determine the aboutness of a given item. If the structure is implicit and the bibliographic features (such as section headings) are few, the participants may struggle to find their way through the text. Without these guideposts, they are easily lost. The absence of an evident content structure can result in more time being used, in more difficulty determining aboutness, in changes in the participants’ examination strategies, and in higher anxiety regarding the quality and completeness of their work.

5.1.8 Form of Content and Genre

Only a small number of the participants expressed interest in formal genre categories. This was related to the types of books used in the study, rather than reflecting a lack of interest from the participants, because none the three items truly represented a form or genre. The participants’ lack of interest in genre is therefore unsurprising. Two participants mistakenly referred to *The Crazy Makers* as a diet book, but that book is not a member of that genre. Participant 2

categorized *The Crazy Makers* as a “food and diet book.” She stated, “Food and diet books are very similar. They want to show you statistical evidence that yes this diet works. It is supported. That definitely made it easier.” While the item contains a small number of recipes and discusses nutrition, its focus is not similar to that of the modern diet book, which concentrates on prescribing a new meal regimen with the ultimate goal of weight loss. Six of the participants referred to “diet” in their aboutness statements for Book Two; only two participants, however, referred to it as the book’s genre.

All of the participants expressed some interest in the form of thought content or the type of writing found in the items, supporting Langridge’s inclusion of this concept in the subject analysis process.²⁶⁷ Few participants used the words “form of thought” to express this idea, but there was interest in this concept. Throughout the twelve examinations, examples of form of thought or type of writing appeared frequently. Each participant mentioned the recipes they found in the back of *The Crazy Makers*, and eight participants included “recipes” in their aboutness statements for it. Some participants categorized *The Death of Satan* as a history, using the term as a type of writing instead of as a subject. In the final aboutness statements, however, only topical mentions of history are included.

Participant 1’s only reference to form of thought was a statement that she was attracted to numbers and statistics. Whenever she encountered this type of content, she took time to examine it. Participant 3, upon opening *The Death of Satan*, began to identify various forms of thought. She described the writing as “narrative and anecdotal.” Shortly thereafter, she used some discipline-based categories to describe the content of *The Death of Satan*. She stated the book is “more philosophical than scientific.” She noted with this type of material, “You really cannot

²⁶⁷ Langridge, *Subject Analysis*, 55-57.

perform a study.” She stated that she noticed dates and “a lot of stuff that looks like a philosophy text.” She also noticed that *The Death of Satan* “looks like a very chronological history.”

Participant 3, when asked about her approach to determining the aboutness of *The Crazy Makers*, stated:

I probably based a lot of my judgments about *The Crazy Makers* on stuff that my husband owns. (The corporations are going to get your mama, and all that stuff.) I think past experience with others, not necessarily anything specific, having seen that, I probably already have a category in my mind already. As soon as I saw that book, it went right into that category. I didn't glance at that one enough to verify that all the science was pseudo-science. She's probably got some good points in there, but because I categorized it with a lot of other works that are very ... the science isn't sketchy, but it is not original either; it's a layperson's literature review.

When she encountered this item, she quickly identified an ad-hoc genre category—conspiracy books my husband likes to read—in which she could place the book, as well as identifying a form to describe the content—a “layperson's literature review.” Both were useful in providing a contextual framework within which she could conduct the examination and gain an understanding of the aboutness.

Participant 4's expression of form was less refined. She simply saw the third item as “a sort of history.” There were no mentions of form of thought or form/genre for the other two items. Participant 5 noted that the third item's type of writing was considerably different than that of the first two items. It was filled with “many more stories or anecdotes, so yes, I picked up on those. The first two books contained many more facts and figures. I tend to look at those a little more.” Participant 6 also noticed that *We've Got Issues* had “facts and figures.” She noticed that the author liked to ask questions, and then “answers her questions by producing statistics.” She stated, “I am getting the sense, through skimming, that she brings up a lot of figures.... Figures like that don't mean that much to me.” This was another reason Participant 6 loathed

Book One. Participant 7 identified the type of writing in *We've Got Issues* as “satire” or “commentary by a comedian on American society.” She also suspected that *The Death of Satan* was a novel, “possibly a mystery,” but that notion disappeared once she saw the title page. Participant 8 recognized the form of thought in *We've Got Issues* as “commentary on political issues” and as “medical information” in *The Crazy Makers*. In the third item, he saw “it was philosophy, religion, historical stuff.”

Participant 9 described the type of writing in *The Death of Satan* as “thoughts” and “opinions,” but had little else to say on form of thought or genre. Participant 10 saw *We've Got Issues* as “social commentary” and *The Crazy Makers* as an “adolescent nutrient primer” and a “self-help kind of book” with recipes. She identified *The Death of Satan* as a history, but noted that the author referred to the work as a “national spiritual biography.” Participant 11 felt that *We've Got Issues* looked like a “self-help book,” but quickly realized it was not. In her aboutness statement, she referred to *The Crazy Makers* as “part documentary and part nutrition/diet book.” In the beginning of his examination of Book One, Participant 12 stated that he was “looking for form,” and that he noticed “a lot of numbers and statistics.” He included the phrases, “facts and figures” and “political tract,” in his aboutness statement for *We've Got Issues*. No other person included form of thought or genre information in his or her aboutness statements for Book One. He described *The Death of Satan* as “a post-modern, social critique” that was a “history.” He stated that it was “a very scholarly work.” He noted: “Instead of drawing on stats, he tends to draw on illustrations, both historical and [literary].” While the participants addressed the form of content or type of writing in their analyses, very few included it in the written aboutness statement. It appears that it, too, provides context for understanding the item, but ultimately, is unimportant for describing the aboutness.

5.2 CONTENT EXAMINATION STRATEGIES

The content examination strategies addressed in this section contain approaches that were addressed in the LIS literature and observed in this research. All of the strategies illustrated in Figure 5.1 are described in the following sections, with participant statements used to demonstrate their significance in this study.

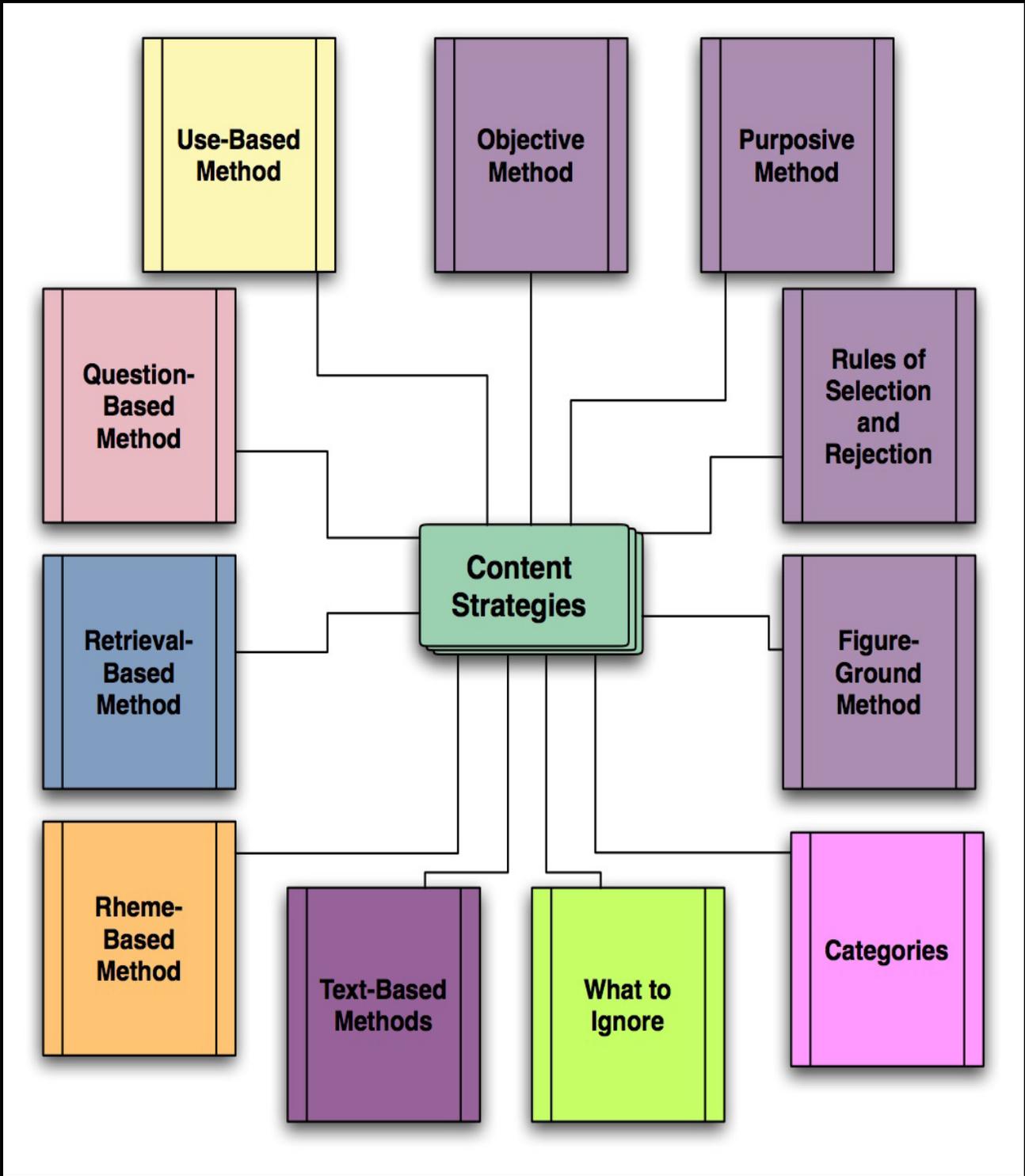


Figure 5.1: Content Examination Strategies

5.2.1 The Purposive Method

Of the content examination strategies described in the LIS literature, the most frequently employed was the purposive method. All twelve participants used the author's purpose, thesis, or intent as part of their aboutness determination process. This is a strategy that has been described by a number of authors, but is most notably expounded upon by Wilson in his essay *Two Kinds of Power*.²⁶⁸ In Wilson's purposive method, the subject analyst considers the author's intent or predominant purpose in creating a document. This purpose may be shared directly by the author, or the analyst may decipher it. Examples of both cases are described in this section. Both can be problematic, because authors might not adequately describe their purpose or they may aim at nothing in particular. It might also be difficult for the analyst to distinguish between primary aims and secondary or supporting objectives.²⁶⁹

Participant 1 stated that she was trying to figure out what the authors were trying to say. She stated that she did not have to spend much time trying to figure out the authors' intents, because in the first two items, they were very clear. With *The Death of Satan*, however, she stated that she did not understand the author's purpose at all. Participant 2, while examining Book One, stated, "the author is trying to demonstrate how most young people feel," and that, "the author promotes Gen Xers getting involved in these issues." In all three books, she was looking for a clear statement by the author that would identify what the author was trying to do. She wanted to "figure out ... the argument he was trying to make." She stated that her "primary goal was trying to derive what [the authors] were talking about." She stated that in her

²⁶⁸ Wilson, *Two Kinds of Power: An Essay on Bibliographic Control*, 78-81.

²⁶⁹ Ibid.

examinations of the items, she was looking for clues to make that clearer. When asked what would have been a good clue, she replied:

“This chapter is about...” [or] “This section is about...” When you are skimming, you are moving fast, and you really want to have a clear introduction. I think that’s specifically one of the things that are used for research purposes; that is what the reader wants to see. So, when I am skimming something for researching, I want to see what this is about. This book [*The Death of Satan*] doesn’t provide that.

She did not focus on deciphering the author’s purpose on her own, but instead, searched all three books for an explicit purposive statement. Such a statement is not always present in a document and she was, therefore, not as successful with *The Death of Satan*, which did not contain a single explicit statement, but instead, many somewhat vague ones.

Participant 3 was very interested in the author’s purpose. Her process, too, focused on finding thesis statements made by the authors. When asked how she performed the text and content examinations, she stated:

I checked out the tables of contents and introductions. In all three cases, they have an introduction that basically says, “Here’s what I am going to talk about in this book...” They all have something in there that states what it’s going to be about. So, I skipped to that, and then go to the conclusion.... I am looking for a phrase that says, “This book is about” that gives you a springboard for writing an aboutness statement. I want to know what the author’s intent was. I know some authors don’t really achieve their intent, some authors do. So maybe their statement of what the book is about isn’t necessarily the most accurate summarization, but it really gives you a whole sense of what they are trying to do.

She looked through the introductions for an “about phrase.” She did this with varying levels of success. Early in *We’ve Got Issues*, Participant 3 began making macro-level assumptions of the aboutness of the item, some of which focused on the author’s purpose.

I’m guessing this is a book urging Gen Xers to vote, based on the fact that because we are interested in money, and if we’re not careful, the government is going to take it away. I am definitely guessing that is what this is.²⁷⁰

²⁷⁰ Part of this passage was used earlier to discuss author’s point of view.

In addition, she wanted to see if the author was proposing solutions to the issues that she raised.

Toward the end of her examination, she found a statement that summarized the author's purpose.

He says it's "my best attempt to boil down some of the issues of importance to Gen Xers (or whatever you want to call yourself) today...." Well, that was pretty obvious. Actually he is just stating some rhetorical questions that are left to the reader. So, he's not really making any, aside from interjecting his own personal prejudices, arguments in favor of any particular political direction or any plan that we should take to try to fix things. I think, basically, he is trying to get out the vote. He's made a bunch of references to the, actually she ... she makes a bunch of references to the 2000 election and the differences between the candidates. Interesting, I am wondering how soon before the election this came out, whether this was an attempt to sway Gen Xers in one direction or another or just to get them to vote at all.

Having identified this information, she then wrote down: "Possibly designed to present these issues to Gen Xers and encourage them to vote." In *The Crazy Makers*, Participant 3 also searched for the author's purpose, but was quite wary of that purpose.

She's got a purpose to serve; she's using these statistics to support her argument that we're not getting the right things that we need for our brains. I don't know that necessarily that she ... she hasn't made the statement in here; I don't see it in here, anything to indicate 'Well, these things could be caused by something else.' That is what I would look for in scientific study. She would really say, 'Well, we could have taken into account this, we could have taken into account that,' but she's really just got facts and facts and facts lined up about poor nutrition doing things to you, what artificial coloring can do. She's got a lot of really, good legitimate points here, but I don't know how scientifically sound they are. She is definitely serving an agenda here.... She is advocating a return to more natural, organic food—like earlier humans used to eat.²⁷¹

In the first two books, finding the author's purpose was not difficult, but like most of the other participants, she had some trouble using this method on *The Death of Satan*, because there was no single purposive statement made by the author. Instead, she identified several statements of this type. "It is funny how many different places he stated 'The subject of this book...' and every time he does it, it is different." The author does sprinkle the following statements throughout the introduction and conclusion of the book.

²⁷¹ This quote was used earlier to illustrate this participant's concerns about the validity of the author's arguments.

- The story I have tried to tell is the story of....
- The subject of this book is....
- My driving motive in writing it has been...
- ...is the subject of this book.
- The pages that follow are an attempt to tell the story of....
- It is not a history...
- It takes the form of....

Because of the multiple purposive or thesis statements that addressed different aspects of the book, Participant 3 stated she hoped to find a point where the author said, “This book is about...” and said it clearly. She hoped that the author’s statement would be unambiguous, but she noted that the author “said it 18 times and every time it was a different meaning.” The author’s dense, academic language was a key factor in making Book Three more difficult for all of the participants. It was not only hard to spot a purposive statement, but it was also difficult to interpret those statements once they were found.

You’re slogging through all this language; asking, “What’s this guy really saying?” The chapter headings were not very descriptive. Even the introduction, it [author’s purpose] is buried. He tells you an anecdote and then tells you about this historian, then tells you his purpose, then another version of his purpose, then some more stories. You get bogged down in all the language.²⁷²

Participant 4 stated that while it was not her primary concern, the author’s intent was a consideration in her process. She identified that in *We’ve Got Issues*, she thought that the author was “trying to get more people to focus on issues that people wouldn’t normally think about.” She also thought that the purpose of Book Two was to “enlighten people to nutritional aspects.” Book Three was harder though. She stated that when analyzing it, she was not concerned “with what he was trying to do.” Participant 5 stated that he also was looking for the author’s purpose, thesis, or “about statement.” He identified the author’s purpose for writing Book One.

²⁷² This passage was also used to illustrate the participant’s thoughts on the effect of language on the aboutness determination process.

She seems to want to inform them of the issues.... She's basically saying, 'Hey, get involved. Make some changes. Get involved and that way you can make some of the changes to some of these numbers.' Not sure she's really laying out, well, she hasn't so far—this is the beginning. She's laying out what needs to be changed. We are not as well off as we thought we were.

He, like the other participants, found Book Three to be the most difficult. "The last one was a little bit frustrating because I am trying to figure what he's aiming at." He was purposely searching for a statement of intent. He found one statement in *The Death of Satan*, but he did not trust it to accurately communicate the aboutness.

Occasionally, in the introduction, where the author says, "Hey. This is what this book is about." The author did say that in this book, *The Death of Satan*, but I didn't see that coming through in his argument. I guess that was like, well, at least of what I read of his argument. So, I guess, I could have just paraphrased what he had said, but that's not what I felt from what I had read.

To represent the aboutness of Book Three, Participant 5 chose to use his own interpretation of the content over the statements made by the author, despite feeling that the author "laid out a much more structured plan" than the authors of the first two items (whose thesis statements he accepted without question).

Participant 6 attempted to identify the author's purpose in all three items. In *We've Got Issues*, she saw the author's intent as inextricably connected to the author's point of view. As she had difficulties with the author's point of view, she distrusted what the author was attempting to do.

I think maybe it's a wrong sense, but I think that that's what the political or point perspective that she is coming from is—being a cheerleader for the 18-24 year old age group voting. That comes from page 35 and her point of why youth are disenfranchised and perhaps don't want to vote. "It is time to roll up our sleeves and get started. And what better time? It's election year and the start of a new millennium. Sound fortuitous to me."

Later in the process, she reinterpreted the author's purpose.

Her point seems to be making productive, non-questioning human beings who can serve the workforce and increase the status and consumption of the United States because they have expendable incomes. I am on page 178. I mean maybe the point is that she is just bringing up questions for the audience to read about. I really hope this book didn't sell very many copies.

At the end of her examination of Book One, she saw that the author included another summarizing statement of purpose in the afterword. Participant 6 accepted this final statement as the author's intent in writing the book, but she was still doubtful about the author's agenda.

Participant 7, too, was looking for a "thesis statement." In her discussion of the importance of the introduction, she stated:

I was looking for sentences that said things like, "This book is about..." or "I wrote this book because..." or "The purpose of this book..." I looked for very clear, definite statements like that from the author. I looked for those in the introduction. In the conclusion, I looked for more general, sweeping statements. I also looked at the section headings.²⁷³

She identified the author's purpose in *We've Got Issues* as trying "to teach an apathetic group." She also noted the author's purpose in *The Crazy Makers*. During her interview, she described her use of author's intent.

She [Bagby] pretty much beats it over your head as to what she is trying to do with this book. So, [the author's purpose] influenced what I thought the book was about. In *The Crazy Makers*, her intent definitely influenced what I thought the book was about. She was trying to instruct people or educate people about what she thinks is wrong with the food industry. To an extent I can see that affecting aboutness. *The Death of Satan*, though, I didn't think about his intent so much.

Participant 8 made assumptions about the intent and purpose of each of the authors. His assumptions were refuted, refined, and/or reinforced as he gathered more information. He was not interested, however, in the authors' statements of purpose. In order to avoid these statements, he skimmed the introductions to the items quickly and then moved to the chapters. He stated that

²⁷³ This passage was used earlier to discuss the use of introductions and conclusions in the examination process.

he associates the introduction with the author's statement of intent, and that he associates the author's intent with an agenda.

The author's purpose is usually to persuade, especially in a book like *The Crazy Makers* saying this is bad, this is bad, this is good, and do this instead. That's the author's purpose. My aboutness statement is completely disjointed from that. Like I mentioned with the objectivity, instead of saying preprocessed food is bad, organic food is good, which might be the author's purpose (or close to it), but I would say that it is about diet, nutrition, and organic food. These things are what it is actually about, not about what the author is trying to convince someone of. I guess those two would overlap in a thesis statement for a research paper, when you say the present research is concerned with evaluating the strength of the relationship between this and this. So, you get this is what I am trying to find out, which is the author's purpose, but it also says what it is about.

Participant 9 was interested in finding out what the author had to say about the contents of *We've Got Issues*. To do this, she looked at the introduction. After skimming the introduction briefly, she stated:

The author is writing this as a service for the younger generations to explain some of the stuff in politics that hasn't been covered in school. Some of the stuff she thinks would be most important to people under thirty.

To find the aboutness of *We've Got Issues*, Participant 9, "tried to figure out what [the author's] motivation for writing the book is." Her aboutness statement even included a statement of the author's purpose:

The author has written this book as a guideline for Gen Xers to understand the political environment. She uses pop culture references throughout the book to keep the reader's attention and to illustrate her points.

Participant 9 analyzed the other items in a similar fashion, i.e., trying to identify the intent of the author. She wanted to see "what the author is trying to tell us." Like the others, she found Book Three to be the most difficult item.

It is something that's not as familiar to me. I had a harder time. For what I saw, he didn't state his thesis explicitly. It was harder for me to look for things that backed it up. I didn't see anywhere in the book where he laid it out very concretely. It was more, not abstract, but it wasn't as cut and dried as the other

two books.... I guess mostly what I did, when I was looking at *The Death of Satan*, I tried to find the point where he would say why he wrote the book and what he wanted the reader to get from the book. I never really found that (unlike in *We've Got Issues* and *The Crazy Makers* where the answer was explicit or easily inferred); it wasn't as concrete for me.

Participant 10 also attempted to identify the author's thesis for each item. She stated that she was trying to "gain a quick idea of what the author was trying to say" and "their position on their topic." Participant 11 was looking for the author's statement about the topic of the book.

I wanted to find out what their hypothesis was or the reason for writing the book. That's why I looked through the introduction, and sometimes, the tables of contents. Then I went to the conclusion because often they sum up what they are trying to get at in the book.... I was looking for the purpose of the book—What the author is trying to do? What does the author want the readers to do when we read this book?

She stated that the author's intent is key to figuring out what something is about.

I want to know what their goal is in writing this book. They might not succeed depending on how they define their goal. If they don't frame what they are trying to write about, then maybe the book isn't a good read anyway.

She felt that the authors' intents were rather apparent in *We've Got Issues* and *The Crazy Makers*. When she saw the statement, "my best attempt to boil down some of the issues of importance to Gen Xers," she said, "that looks like that's what the book is about." She was specifically searching for statements that summed up the items. In Book Three, though, she felt that she was less successful. Early in her examination of *The Death of Satan*, she read:

How this crisis of incompetence before evil came about and how it has made itself felt in the United States, whose culture is the dominant one of the West is the subject of this book. It is not a history of crime or criminology, or of philosophical ethics or religious doctrine. Nor is it a call for intervention in this or that human conflict. It takes the form of a kind of national spiritual biography, beginning with America's childhood.²⁷⁴

After reading this, she stated, "That is worth reading again," and then she read it again. She thought, at first, she had found the author's thesis statement, but a little further into the

²⁷⁴ Delbanco, *The Death of Satan*, 3-4.

examination she stated, “I found the one sentence that said what the book was about, but it doesn’t really.” She said this after having seen other statements about the subject of the book.

I am looking for statements that begin “This book is about” or “My conclusion is”. When I found something like that in *The Death of Satan*, I thought “Bingo! That’s it!” But, when I read, it didn’t help me. It was the same thing in the conclusion. He said what the subject of this book was. I thought that’s it. I guess I was looking for a summarizing statement, nothing specific.

Participant 11 found that a thesis statement or a statement of the author’s purpose does not always convey the information in a clear and helpful fashion. She found several statements describing the author’s intent, but still had to continue her examination to adequately describe the aboutness of the item.

Participant 12 also identified the authors’ stated purposes in the three items. He noted that Book One was “aimed at Generation X, getting them politically active,” that Book Two was “trying to link up the trend toward less-than-ideal mental health with an increasingly unhealthy diet,” and Book Three was a “critique” addressing issues of evil. He felt that at times, he was analyzing the items too much, but stated, “You always want to look beneath the surface to the author’s intent and who their audience is intended to be.”

To the participants in this study, the search for the author’s intent or purpose was of major importance in determining aboutness. All twelve participants used this approach, and ten of them were very focused on this task, hoping to find a structured statement by the author that tied the aboutness up in a tidy package that could then be used for an aboutness statement. The participants, however, discovered that the quality and helpfulness of those statements can vary. While some authors provide a single, clear, succinct statement, others are unable to do that. Some authors may provide no thesis statement and other might provide five or six versions. Despite what may be encountered, the participants felt this was a productive and rewarding

strategy. Wilson's purposive method was the most successful and the most prevalent content examination strategy used by the participants.

5.2.2 Question-based Aboutness

No participant used an aboutness determination approach based on considering or predicting the questions a document will answer. Not one of the participants described this approach, nor did the researcher observe this approach being used. When asked if they considered this, all said they had not. Apparently the participants in this study do not think like Hjørland with a focus on epistemological potentials, or like Soergel with his request-oriented indexing. While this approach is possible in aboutness determination, the participants in this study did not gravitate toward this method. It was not instinctive for them.

5.2.3 Retrieval-based Aboutness

A notion similar to query-based aboutness is the idea of aboutness as a reflection of how groups of users would search for the document; this is Maron's *R-about*. Only Participant 11 mentioned this approach, and only momentarily. She stated, "If I knew what these [aboutness statements] were going to be used for, like in a catalog, I would make sure I would include particular words that people might search on." That is the only time any of the participants addressed how a user would search for the items.

5.2.4 Use-based Aboutness

Though related to query-based aboutness, use-based approaches were slightly better represented in the participants' aboutness determination processes. While this approach was far from common, it appeared briefly in nine of the participants' examinations. Participant 3 identified *The Crazy Makers* as being useful as a layperson's literature review, combining use and form. She also identified *The Death of Satan* as an item that might be useful for writing a paper on the topic of evil or as entertainment for an intelligent reader. Participant 4 stated that she briefly considered the uses of the documents. She felt that the three were "educational tools in some way." Then she corrected herself, stating, "not so much educational, but informative." Participant 5, too, saw *We've Got Issues* in terms of its educational value for those wanting to learn more about political issues. Participant 6 stated that while she did not think about how the books would be used by others, she did consider how useful the books might be to her. Participant 7 spent little time thinking about the uses of the books, but she did recognize that a parent might use *The Crazy Makers* to understand nutritional issues related to children. Participant 8 saw that Book One was trying to teach readers about political issues important when choosing a political candidate, at least the issues that the author thought were important. Participant 9 saw that the first two books would be used to get overviews of politics and nutrition, but was unsure of how *The Death of Satan* would be used. Participant 11 saw that *We've Got Issues* was meant to educate Generation X. She considered possible uses for it and for *The Crazy Makers*, but with *The Death of Satan*, she had no idea how it would be used.

Participant 12 predicted a use for Book One that was not accurate. He thought the book would contain "practical instruction" in political activism; that was not included in the text. When he was asked directly about potential uses for the items, he stated that *We've Got Issues*

might motivate someone “who is fed up with government and doesn’t know what to do about it. *The Crazy Makers* is for someone who wants to eat healthier but needs a bit of demonization of their junk food habits. *The Death of Satan* is an ideal reference book.” Participant 12 had uses for each of the items when he was asked about them, but he did not think about this topic during his examinations of the items. It raises the question of whether the participants are able to identify uses for the documents because they understand the aboutness or are they able to identify the aboutness because they understand the uses of the document. In this study, it appears to be the former and not the latter.

5.2.5 Rheme-based Aboutness

Hutchins’ idea of focusing on rhemes in aboutness, i.e., focusing on the new information being described by the document, was also not an instinctive approach to determining aboutness, according to the participants in this study. Of the twelve participants, only Participant 10 stated that she briefly considered what new information might be found in an item; she did not, however, try to incorporate this into her description. The only other references to this topic were during their interviews, when the participants stated that they had not considered it at all.

5.2.6 Exhaustivity and What to Ignore

Eight participants discussed issues related to exhaustivity or the level of granularity at which to determine aboutness. They were interested in what needed to be discarded from their observations while determining aboutness. This reflects Todd’s statement that the participants must have an ability to discriminate between significant and trivial information in order to

determine the subjects of documents.²⁷⁵ Ultimately, the eight participants stated that the details of a text must be ignored in favor of the broader, more encompassing themes, which describe the macro-level aboutness. While some participants undoubtedly would have come to this conclusion on their own, the level of exhaustivity to be used in determining aboutness was prescribed in the instructions for the study. The instructions stated that the aboutness was to focus on the entire item instead of individual details of the text, i.e., at the summarization level.

When asked what she ignored in the texts, Participant 4 stated that she would skip over passages when the author began discussing specific stories or specific examples because she knew they would not help her determine the aboutness of the entire item. Participant 5 agreed; he stated that he did not bother to include stories or anecdotes when they were simply illustrating a greater point. He also found it helpful to skip over concepts with which he was already familiar. Participant 6 stated that while she felt comfortable with the macro-level aboutness of the books, she did not feel that she necessarily understood the details of the items. She stated that she thought it would be possible for several independent observers to agree on the overall aboutness of an item, if they were to focus on the broad concepts instead of the specifics of the text.

Participant 8 also felt that his general statements were correct. He was confident in his overall understanding of the aboutness, “but some of the details might not be as reliable.” He felt that he had “pegged the three [books] at least reasonably close.” He stated that the process should be aimed toward the broader picture and not at micro-levels of aboutness.

I think by skimming through the content, I have memories of specific elements about each of the books. Those are all synthesized into a whole. That isn't expressed in the [final aboutness] statement. The statements consist more of general statements or subject areas that each book concerns, but that doesn't represent my entire understanding of the book. I think my statement for *The Death of Satan* does not say anything about witchcraft or witches, but there is a

²⁷⁵ Todd, “Subject Access—What's It All About?” 260.

significant section in the book on the Salem witch trials and things like that. So that is something that I understand about the book, about an element of the book that I know and recognize and understand, but it is not included in my statement. The things to include are the general information that is going to point the reader towards what it is about. If they want to know more, then they can read the book. To make an aboutness statement that tells you everything about the book, then we don't need books any more, just people to write aboutness statements. So, the statement needs to be specific enough that the reader can tell what it's about, but not tell the reader what all of the material is. So, you put in the stuff like the more general subject areas and leave out the details I guess.

Participant 8 summarized the process of discarding details quite well. It seems to be a process that everyone performs, but a process of which not everyone is consciously aware. The discarding of details reflects the text reduction process, or the process of controlled forgetting, described by Beghtol and others.²⁷⁶ Participant 12 also saw this connection quite clearly. Early in his process, he stated that he was “looking for the general rather than the particulars.” In his interview, he discussed the relationship between levels of exhaustivity, text reduction, and categorization.

Summaries have their own format, and having been to school for a significant portion of my life, that is something that my mind is trained to recognize; it is built-in with anytime you try to describe something. I imbued that [statement] with as much of my nonverbal, intellectual appraisal as I could. Again, I am not going to write a paragraph on each chapter. There is a detail consideration.... You leave out as many details as possible. You look through the book for those details: those names, those place names, those people names. You try to group them together as you go through. You group them together under categories. I thought, the book may have been, just reading “Kennedy” and “Clinton” in the first chapter of *We've Got Issues*, I thought the book may have been more historical or linking current events to a more historical narrative. Then, going through, seeing all the stats and buzzwords of contemporary political atmosphere, revised those connection and put them off. Then put the Kennedy and Clinton off as a special category, rather than trying to connect it to a larger whole. What you are trying to do is to pick out those key vignettes or anecdotes, names, places, and dates; and you are constantly reorganizing them and coming up with categories under which they fall. But I try to keep those categories at a maximum of six; I am working on a frequency that will only allow roughly six breakdowns.... Can I sum this up under a phenomenon? If so, is this phenomenon able to be subcategorized under a larger social, or recognized, or more legitimate, category that is not of my own

²⁷⁶ Beghtol, “Bibliographic Classification Theory and Text Linguistics,” 89-90.

composition? So, it goes from the specific and concrete details to the more personal and ephemeral generalization to a more general, concrete [categorization].

Most of the participants performed the activities described by Participants 8 and 12, but were not consciously aware of it. Only Participant 8 attempted to demonstrate how some of these processes worked. Beyond an answer of “details,” the other participants had little to contribute to the discussion of how they knew what to exclude from their analyses. The activities of text comprehension and text reduction, which are a part of this activity, do not always consist of conscious choices. Therein lies some of the difficulty associated with linguistic-textual approaches to aboutness. The innate processes are beyond conscious control and an aboutness determination process based on them would not be possible or practicable.

5.2.7 The Rules of Selection and Rejection

While determining aboutness, some participants stated they were interested in finding “what was left out” and “what held the work together.” Others referred to this as finding “the glue.” This approach reflects Wilson’s rules of selection and rejection, which requires an analyst to find an organizing principle for the writing, i.e., to determine what gives the writing unity and completeness and what has been left out.²⁷⁷ This is a method in which the participant, as a result of his or her personal ideas, interests, or knowledge, identifies concepts that he or she believes should be addressed in the text. This method requires a fair amount of subject expertise to determine what has been rejected for inclusion in the work.

At some point during their examinations, eight participants wondered whether one of the authors addressed a certain concept they considered to be related to the content of the book.

²⁷⁷ Wilson, *Two Kinds of Power: An Essay on Bibliographic Control*, 85-89.

While this activity did not provide great insight into the aboutness determination process, it did help to provide some context for the work, i.e., the boundaries or scope of the written work. It provided insight into what the work was not about.

Participant 1 pointed out an omission from a text. An issue that she considered to be important was missing from *The Crazy Makers*. “She doesn’t talk about the elderly’s unique dietary problems, which I actually read a lot about years ago.” This illuminates one aspect of Wilson’s rules of selection and rejection. No other participant addressed this concern about the diets of the elderly; only Participant 1, who has a background in nutrition, mentioned that seniors had been excluded from the book. This realization, however, had very little impact on the actual aboutness determination process. What was excluded did not help the participant understand the aboutness of the content any more than the other participants. It provided context or a parameter surrounding the subject area, but ultimately, there are many things not included in this book (and all books). To understand the content by understanding what something is *not* is not an efficient, practicable, or reasonable approach to aboutness determination.

Participant 2 stated that when she was analyzing the items, she was not concerned with what was left out. “I was looking at the flow; what flows from here to here. In *The Crazy Makers* and *We’ve Got Issues*, I could really see the progression they were making. So, yes, I was looking at the glue.” Participant 3 was interested to see if hyperactivity was discussed in *The Crazy Makers*; it was not. She also noticed that Book Two did not address issues of food industry profit made at the expense of the public’s health.

Interestingly, I didn’t pick up a vein on anything about profit. Sometimes in books like this I expect to see a theme underlying about how evil the corporations are that are doing this or at least how they are turning a profit doing it.

Participant 6 was concerned about “relationships in the text,” “interconnections,” and how concepts “go together.” She stated, “I am looking for how it is all tied together in terms of the subjects.” Participant 6 was also interested in the information left out by the author of *We’ve Got Issues*.

It just seems she is from a bubble somewhere. My major problem is she is pretending to tackle difficult issues, but is not really going into the politics of race or oppression at all. It is just “gays have a problem,” “blacks have a problem,” “those ladies who want abortions.” She’s not going deep enough.... She obviously knows a little bit about history, but what about the Iran-Contra affair? ... She could have done so much more with this book.

Participant 6 expected to see more depth in this item. Examining what was not included helped her to understand the author’s approach to the material, and then to make the determination that the material was lacking information. Participant 7 stated that she was looking for the common themes among the chapters. “Did this chapter have anything to do with the other chapters?” This was a concern for her particularly with *We’ve Got Issues*, where each chapter is about a separate topic.

Participant 8 noted that in Book One “each section is a different issue; so it is hard to link it outside, except to political issues.” He was looking for the overarching theme or macro-level proposition that would cover all of the topics within the item. Because the macro-level proposition was rather broad, his aboutness statement “is short and limited to that one [term] because each of the sections doesn’t blend together except under the greater umbrella.” Participant 12 also looked for the broader concepts that would cover the more specific details. He described aboutness determination not only in terms of finding the common thread or the glue that holds the work together, but also as a type of text reduction similar to that described by

Beghtol and others.²⁷⁸ Participant 12 also noticed one element that he thought was missing from *The Crazy Makers*. “It doesn’t seem to have a strong advocacy against Kraft, anti-General Mills, anti-giant conglomerate, corporate feed mills. It just seems to be you can eat outside this stuff.” He used the absence of information to find the outside boundaries of the topic and the focus of the aboutness: in other words, it provides context. Wilson’s Rules of Selection and Rejection²⁷⁹ prove problematic as a primary approach to determining aboutness. Ultimately, there are many things not included in books. To understand the content by understanding what something is *not* is not an efficient, practicable, or reasonable approach to aboutness determination. To provide context, however, it can be useful.

5.2.8 The Objective Method and Word/Concept Frequency

Word/concept frequency is the basis of Wilson’s objective method.²⁸⁰ In this approach, the analyst focuses on the frequency of references made to the concepts found in a document to determine its aboutness. Wilson states that the analyst must scrutinize complex configurations of concepts based on explicit and implicit groupings. The analysts must not only identify the concepts that appear most frequently, but they must also have an understanding of the relationships among concepts, so as to more accurately understand their frequency. In this study, however, most participants only considered the frequency of broad simple concepts, and it was not treated as an actual method or a focused pro-active process. Its use involved only vague impressions of word frequency, rather than the participants truly monitoring the concepts and

²⁷⁸ Beghtol, “Bibliographic Classification Theory and Text Linguistics,” 89-90. See also section 2.2.3 in this document for further discussion.

²⁷⁹ Wilson, *Two Kinds of Power: An Essay on Bibliographic Control*, 85-89.

²⁸⁰ *Ibid.*, 83-85.

deciphering relationships. Word/concept frequency was something the participants noticed, not something they gauged or counted.

It appears from the participants' experiences that word/concept frequency plays a role in identifying the aboutness of an item, and it also plays a role in reinforcing the participants' established assumptions of aboutness. All twelve of the participants mentioned word/concept frequency at some point during their sessions with the researcher. Participants 2 and 3 brought it up without solicitation; the others, however, were asked about this concept during the interview process. Participant 1, when asked whether the objective method was a part of her process, stated: "I think on a subconscious level, it was. It wasn't a conscious thing. I wasn't looking for it." Participant 2 noticed several concepts that appeared multiple times in *The Death of Satan*, including frequent mentions of slavery, the Civil War, and the Holocaust. Book Three is about none of these topics, but as examples of *evil*, they do reinforce the broader aboutness. They also acted as guideposts along the chronological progression of the content. By seeing repeated mentions of the Civil War, slavery, and Lincoln in Chapters 3 and 4, some participants recognized that those chapters focused on the mid-19th century. When asked about the role of word frequency in her process, Participant 2 replied, "The frequency reinforces what you think it is going to be about anyhow. That is the only role I see it playing. It's reinforcing [to] the reader that, yes, indeed, this is what it's about." When asked if repeated words or concepts ever showed her that her ideas were wrong, she replied: "No, mainly they reinforced it." Participant 3 used word frequency to help her determine the aboutness of Book Two.

"Brain" comes up a lot here. "Building the Infant Brain," "Nourishing a Baby's Brain," "Feeding your Child's Brain," "Feeding the Adolescent Brain." I didn't know brains had to be fed that much.

In Book Three, she saw that the work contained, “Satan. Satan. Examples of Satan. Examples of the Devil all over the place in the New World.” She described her overall aboutness determination process as one where she would “look at what kind of language is being used; what’s being referred to over and over again.” She noted that:

Whatever had been mentioned in the title or introduction as the topic of the book would jump out. In *The Death of Satan*, it was “evil, evil, evil” all over the book. The book’s subtitle was *How Americans Have Lost the Sense of Evil*, so I would try to pick out anywhere he mentions that topic. In *The Crazy Makers*, looking for brains, since they were such an issue. I was looking for her descriptions and anecdotes about how things influence brain development, body development. I think she mentions the word “brain” as many times as he mentions the word “evil.” But her book has fewer words in it. So in *The Death of Satan*, “evil” is spattered throughout the book. In *The Crazy Makers*, there is probably no page that doesn’t mention “brain.” It wasn’t necessarily as helpful. With her, I had to look at her conclusions at the end of the chapters.

Participant 3 found that in the beginning of her examination, the repetition of words helped her to determine the aboutness of the item, but during the rest of the process, it became useful in reinforcing her established assumptions of aboutness. “Repetition of an idea or re-mentioning of a phrase really gives away what the book is about. If they’re bludgeoning you over the head with it, that is clearly their topic. So *The Crazy Makers* particularly, it was very obvious what it was about.” Reflecting Wilson’s thoughts, she pointed out that you have to be careful not to just accept the simplest answer regarding what something is about. *The Death of Satan* is not just about evil; the aboutness is more complex than that.

You have to take words that were key to each book. Politics, brains, and evil; you can take those primary words, but this isn’t a book about brains. It is a book about artificial additives and food, and bad chemicals getting into your body. This isn’t a book just about brains; there are a lot of books out there about brains and they cover a wide variety of sub-topics. So there are sub-themes maybe that run in all of these. So, it is important to identify the primary topic, evil. But we are not talking about just evil. We are talking about evil in America and we are talking about history. So, it’s a history of evil in America or a history of the philosophy of understanding evil. Those are all things ... evil doesn’t stand by itself. You had to pick out all those other words as well to tell what it was about. And those are

words that occur frequently and they occur in conjunction with the primary word that you are looking for.

Participant 3 did not use the indexes to reinforce her notions of word frequency. She relied on skimming the books:

I didn't look back there. On the other hand, I don't know if that would be any more helpful. Looking at that gives you an idea of what the key terms are, but you can also do that by flipping directly through the books, seeing what terms are coming up over and over again, what jumps out at you.²⁸¹

Participant 8 was the only participant who did use the index for this purpose. "In the index, [word frequency] is one of the things I was looking for. If the word is in the book a lot, it is likely it is a main part of the main idea." He examined the index to find "the stars" of the book. In *We've Got Issues*, the most frequently mentioned concepts include: Medicare, politics, poverty, Social Security, and taxes. He stated, "Those are some of the larger sections of the book." He assumed that the more room the concept was given in the text or in the index, the more of a role it would play in the aboutness of the item. He used the index to efficiently determine the frequency of the major concepts. The researcher was surprised that only one participant used the index to examine concept frequency. But as Participant 12 indicated, there are problems with using the index in this way because the entries lack context. They are "disassociated from" related concepts. Using the index as an indicator of concept frequency does not explain how the concepts are being used or the relationships that exist among the concepts.

Participants 4 and 5 both made brief mention of the repetition of *evil* and *Satan* in *The Death of Satan* when they were interviewed, but did not otherwise mention the objective method. Participant 6 got a sense of concept frequency while skimming the books, but the objective method was not useful to her. Participant 7 felt that the frequency of concepts and words played a large role in her process.

²⁸¹ This quote was used earlier in this document to illustrate this participant's thoughts on the usefulness of indexes.

Definitely, in *The Crazy Makers*, she says child's brain, baby's brain, kid's brain. It definitely makes you say this is a book about how nutrition affects children's brains. I noticed mental issues a lot. I picked up on those issues a bit. In *We've Got Issues*, I noticed a lot of references to Generation X. In *The Death of Satan*—evil—you look for that word a lot.

She was not completely sure, but she believed that her initial notions of the aboutness affected her sense of word or concept frequency. Because she already had an idea that Book Two was about brains and mental issues, she felt that she might have been looking for the presence and repetition of those words. She questioned whether the repetition helped her to understand the aboutness of the item or whether her understanding of the aboutness caused her to notice the repetition of concepts. Participant 10 paid attention to word frequency and mentioned it in the context of her already established assumptions of aboutness.

Definitely, by the end of this book, *The Death of Satan*, I was looking for evil and Satan. Those were definitely words I was trying to find, so I could get that main concept out of it. Yeah, you definitely look for word frequency. In *The Crazy Makers*, brain is one of those words throughout the whole, entire thing. You are going to know, by whatever word is in front of it; there is adult brain, teenage brain, or baby brain to know what it is talking about.

Like Participant 7, she understood that she was looking for certain words and concepts, which might affect what she noticed in the text, and like Participant 3, she realized that a single repeated word or concept in isolation was not enough to understand or describe the aboutness of an item. It is the combination of the concepts with sub-topics and sub-themes that makes the aboutness complete and useful. But, there is no denying that the repeated concept is an important starting point. Participant 11 stated that she used word frequency to help reinforce her notions of aboutness that had already been established, while Participant 12 stated that the repetition of content was a way to pick out what was important and what was not. It was an indicator of major and minor topics.

The objective method assists with both developing the initial assumptions of aboutness and reinforcing those assumptions. Word/concept frequency can help a participant to refute assumptions or to refine his or her understanding of the aboutness. But, it is not clear which comes first: a participant's understanding of aboutness or his or her awareness of word/concept frequency. This points out that the objective method may not be quite so objective after all.

5.2.9 Figure-Ground Method and Categories

This approach, which examines what stands out, is based on Wilson's figure-ground method. In this strategy, the analyst determines the central figures and background figures in the large "cast of characters" found in the entire work. It is the analyst who must determine what stands out or what is emphasized.²⁸² This, of course, can lead to discussions of subjectivity and interpretation; what stands out to one will not stand out to another. The interpretive nature of the approach, however, did not bother the participants of the study—even the participants who thought the process was or could be "objective." Eleven of the participants indicated that they looked for information that "stood out," or for information they found to be "interesting." When examining the information that stood out to the participants certain patterns appeared. Table 5.2 enumerates the categories of concepts that were most frequently observed or cited during the examinations by the participants.

²⁸² Wilson, *Two Kinds of Power: An Essay on Bibliographic Control*, 81-83.

Table 5.2: What Stands Out to Participants

<i>Topics/Concepts</i>	<i>Number of Participants</i>	<i>Number of Times Observed</i>
Concepts that reflect ideas of aboutness	12	1,780
Proper names	12	278
Personal knowledge/Personal interest	12	226
Place names	12	221
Quotations	12	165
Pop cultural references	12	152
Visual emphasis (bold, italic, larger font, etc.)	12	112
Dates and Times	12	109
Titles of Works	11	89
Numbers/Statistics	10	83
Unfamiliar words/concepts	9	26

The most frequently cited and observed category of what “stood out” was a topic or concept that reflected the participants’ already formed notions of aboutness. There are no properties that define membership in this category, except that its members are concepts that were related to the participants’ already formed assumptions of aboutness. In other words, if a participant thinks an item is about brain nutrition, he or she will notice and/or search for concepts like *brain nutrition*, *nutrition*, and *brains* in the text. By far, this category was the most frequently observed with nearly 1,800 observations. This category was used by all of the participants in all of the items.

The second most frequently observed category was that of proper names. This category was observed or mentioned 278 times. The fourth most frequently observed or cited category, place names, is similar in nature. It was observed or mentioned 221 times. The participants noticed capitalized proper or place names that appeared throughout the items. The participants, however, were unclear whether it was the typographic elements that caught their attention or if it was the categories and concepts being represented by the names and places. This question is relevant to other categories as well. In other words, was it content or carrier that made the word

stand out? In an attempt to understand this, participants were asked, “Which catches your attention, the capital letter or the content?” Most often the participants were unable to tease the two apart. They could not tell which made the word stand out. Participant 8 reflected on this issue more than the others. When asked about why the place name *Salem* stood out, he explained that it was related to it being a capitalized place name, as well as a reflection of the book’s content.

It is parts of all those actually. It’s primarily a place name, so it has to be capitalized. So, you see a capital, and that makes it stick out. You look at the rest of the word Salem. It is a place name; it is something concrete, so you can pick up on it a lot faster than some of the philosophical terms. It is also linked with something that has more of an emotional component to it: Salem witch trials. It is an event; it’s a place, and something concrete. On page 234, he lists 5 authors in a row. You can recognize some names, but it is not as powerfully linked to anything. It doesn’t have the content force that Salem does with witch trials, which is directly linked to Puritanism and evil and several other ideas that are mentioned in the book. I think, besides being drawn to it because it is a capitalized word, I tended to attend to it more because I could link it to other ideas within the book. It was in itself a concrete event and place.

The capital letter is what makes *Salem* stand out on the page. It makes it noticeable, but it is the content that helps the participant make connections. In other cases, however, some capitalized words, place names, personal names, etc., are of no use whatsoever. Many stand out simply because the typography makes it so. Of the approximately 500 times a name (proper name or place name) was referred to, more often than not, it held little content force. It was simply a word that visually stood out and had no value in aboutness determination. In addition, these words can detract from the ultimate goal if they are of personal interest to the participant. Participant 12 noticed the names Kennedy and Clinton in Book One. For a brief time after encountering those names, he had a different expectation of what the content was going to be. Quickly he realized these were not important clues to the aboutness, and moved on. That is one of the downsides of using “what stands out” as an approach to determining aboutness.

These two categories, proper names and places, reflect two of Ranganathan's fundamental categories: *Personality* and *Space*.²⁸³ These categories also reflect items on Taylor's list of concepts to include in the subject analysis process. Taylor includes on her list, among other things: names of persons, corporate bodies, geographic areas, and other named entities.²⁸⁴ When asked if they were interested in finding particular categories of information, however, the participants clearly indicated this was not an approach to determining aboutness that they used, would use, had thought about using, or was in any way intuitive. The participants clearly did not approach the examination of the items in this way. In fact, most participants were not clear on what categories were, other than informal, personal groupings of concepts. When asked if categories played a role in her examination, or if she were looking for a particular category of information, Participant 3 stated:

Actually, yes. Whatever had been mentioned in the title or introduction as the topic of the book would jump out. In *The Death of Satan*, it was evil, evil, evil all over the book. The book's subtitle was *How Americans Have Lost the Sense of Evil*, so I would try to pick out anywhere he mentions that topic. I am trying to look for his little summaries of each chapter, his little summarization of the main points; the way things make sense to him. I would hunt for those.²⁸⁵

Her understanding of *categories* reflected the thoughts of almost all of the participants. Categories to her were not those of Aristotle or Ranganathan, they were instead ad hoc categories of personal and limited applicability. Her categories were "words reflecting my understanding of the aboutness" and "useful bibliographic features." Participant 7 was the only participant to state that she was looking for a particular, broadly applicable category of information. She stated she was looking for "proper nouns—mainly names." The participants in this study did not think in

²⁸³ Ranganathan, *Elements of Library Classification*, 82-89.

²⁸⁴ Taylor, *Organization of Information*, 252-253.

²⁸⁵ This passage was also used in the discussion of Wilson's Objective Method.

terms of Ranganathan's five fundamental categories, or even Taylor's more accessible practical categories.²⁸⁶ The use of broad fundamental categories as a basis for searching for aboutness data was not instinctive for them.²⁸⁷

The third most frequently observed group of concepts that "stood out" reflected the participants' personal interests in a topic or personal knowledge of a concept, word, or phrase. This was observed over 225 times. Some participants stated that they purposely avoided such information to save time and move forward in their examinations, but most participants acknowledged that they were drawn to familiar and appealing material. When asked what stood out, Participant 1 listed items of personal interest and concepts with which she was familiar. She stated:

What I was looking for was stuff that was interesting to me.... It is easy for me to analyze numbers, so I am probably drawn to that. A lot of it has to do with my interests. I mean, if I read a word and make an association, then it catches my interest, that's where I alight on frequently.

Participant 2 stated that while she was not looking for any category of information, she did notice certain familiar things.

I wasn't really looking, but when I did see certain things, things that I recognized and certain names that I recognized, certain issues that I recognized, I think that tended to catch my eye more than other things that weren't familiar to me.

Participant 3 stated that certain concepts jumped out at her when she was "personally involved in the argument the author was trying to make." Participant 6 also illustrated this by saying, "When I see popcorn—I really like popcorn—that's where my eye goes." She stated that unfamiliar concepts *and* familiar concepts stood out, as did big or unfamiliar words. Participant 7 described

²⁸⁶ This does not mean the participants did not use the process of categorization, i.e., categorize data upon encountering it. This is discussed in Chapter 6. This section is only addressing that the participants did not seek particular categories of information when they were determining aboutness.

²⁸⁷ In the spirit of reflexivity, the researcher must admit this was a great disappointment, having hoped to show support for Ranganathan's fundamental categories as a natural, instinctive approach to determining aboutness.

this as, “I tended to look for things that I thought were interesting on the pages.” She stated that her personal interests guided what she noticed; she looked for things that “popped out,” such as, her “own personal interests” or “mostly things I was already familiar with.” She stated, “I think a lot of what stuck out to me were phrases I could identify with. In here, *The Death of Satan*, it was the historical things when he talked about the Massachusetts Bay Colony. I like history.”

Participant 9 explained why searching for familiar ideas was helpful.

I think I looked for stuff that I was already familiar with for a couple of reasons: to get my bearings and figure out what they are about, and because there was a time limit and because I was being watched. So, I wanted to figure it out, try to look at the stuff I was familiar with to have guideposts.

Participant 12 realized that he was attracted to familiar ideas. He felt that he, and everyone else, could not avoid noticing them. He stated:

I think it is a large, involuntary likelihood of landing on or roving to or noting familiar terms and concepts. I can't see where that would be anything but universal. I do it as well. I just saw Gettysburg, which is a particular interest of mine. So, I would probably read more there than I would in [another less interesting place]. I think that always has something to do with it.

Some of the other concepts frequently cited as things that “stood out” included certain bibliographic or textual structures, typographical conventions, unfamiliar words or concepts, and forms of thought content, such as numbers and statistics. Among some of the content-based categories mentioned by the participants were pop cultural references, titles, and chronological elements. Reasons for noticing some of these, such as titles, numbers, and pop cultural references, may also be based in the visual and typographical elements already discussed, rather than on the actual content. Titles and pop culture may also simply reflect the content of the works analyzed. All three items had numerous allusions to other titles and/or popular culture phenomena. *We've Got Issues* in particular made many references to movies, books, and other

popular entertainments. Had different items been analyzed these concepts might not have appeared on this list at all.

The inclusion of dates and time in this list is not surprising. Ranganathan and others have always included chronological elements in their approaches to aboutness. Ranganathan includes *Time* as one of his five fundamental categories.²⁸⁸ Each participant expressed interest in the dates associated with the items; dates were mentioned or observed 109 times. The dates reflected three concepts: publication date, time period in which the content takes place, and currency of the content. In *The Crazy Makers*, only publication date was noticed. In *The Death of Satan*, the publication date and time periods were of concern. It was only with *We've Got Issues*, a book that might be categorized as current events, that currency of the content was addressed. The participants were looking to see if the information in the book was still relevant. It appears that currency is applicable to only certain types of items, such as current events, computer science, and certain topics in which rapid technological and scientific advances can make information obsolete.

Many participants mentioned that what they noticed or what stood out often reflected their personal interests, knowledge, and tastes. It seems to be a natural inclination of the participants to seek out what is recognizable, enjoyable, and familiar. The use of the figure-ground approach to aboutness might lead to discussions of personal interests and familiarity guiding the process, perhaps, toward an understanding of aboutness that is not balanced or is not representative of the nature of the item. These arguments can occur if this is the only process used. If one is only concerned with what stands out, especially in a multi-faceted work such as *The Death of Satan*, there can be many different interpretations of what that work is about. The

²⁸⁸ Ranganathan, *Elements of Library Classification*, 82-89.

figure-ground method alone is not a reliable indication of the aboutness. It, and all of the other strategies addressed in this section, must be combined with other methods or approaches to determining aboutness in order for conceptual analysis to be successful.

5.2.10 Text-based Aboutness

No participant used an aboutness determination approach based on considering the text structures in the item. Not one of the participants described this approach, nor did the researcher observe this approach being used. When asked if they considered this, all said they had not. While this approach is possible in aboutness determination, the participants in this study did not gravitate toward this method. It was not instinctive to them. Of the researchers describing textual approaches to aboutness in the LIS literature, not one created a practicable text reduction or summarization-based model for the conceptual analysis process. Their discussions of the relationship between text comprehension and aboutness determination rarely go beyond statements of how similar the processes are. A workable approach based on text structures has never been offered. Grammatical analysis, text comprehension, text reduction, and linguistics cannot fully explain how aboutness is determined. This does not mean, however, that facets of text reduction and text comprehension theories are not applicable to the aboutness determination process. Text reduction activities are very much a component of aboutness determination, but primarily in a supporting role: as a category of the major processes and operations described in the next chapter.

CHAPTER 6.0 PROCESSES AND OPERATIONS

The third group of aboutness determination components is related to key processes and operations observed during the participants' examinations of the three items. This group comprises activities that happen or are performed in order to gain insight into the content of the items. This group has been divided into six categories of concepts: the input process, assumption making, R-cubed (R^3) processes, sense making,²⁸⁹ text reduction, and stopping. The six categories fit together to create an integrated process; each will be addressed in this chapter. The major processes and operations are illustrated in Figure 6.1.

²⁸⁹ This set of processes is not related to the Sense-Making methodology designed by Brenda Dervin, and expanded upon by others in recent years.

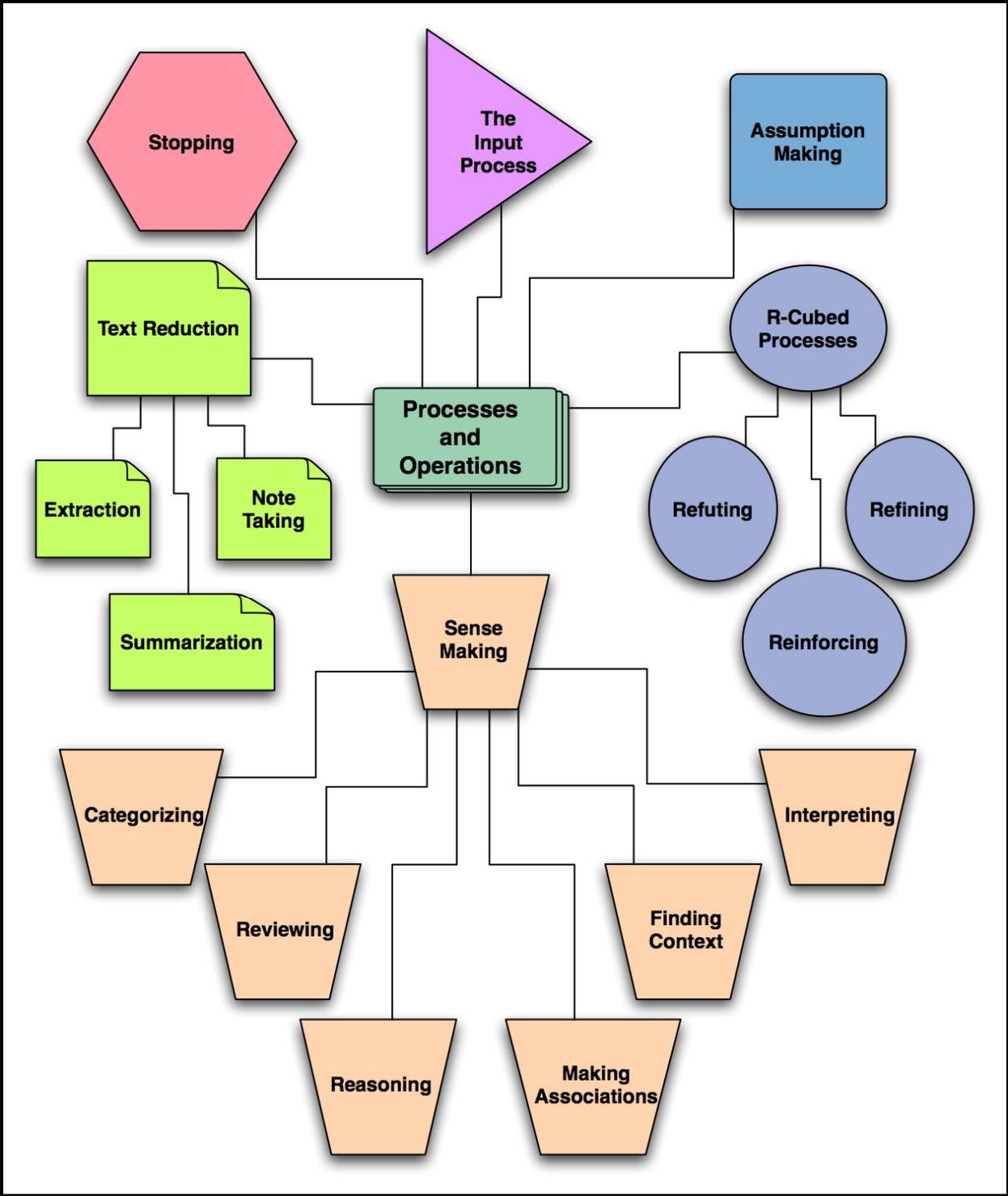


Figure 6.1: Major Processes and Operations for Aboutness Determination

6.1 THE INPUT PROCESS

The input process includes the activities such as collecting data, encountering data, seeing or noticing data, having data cross a participant's path, etc. It is the stage in which data enters the participant's consciousness. The input process consists of both voluntary and involuntary exposure to data; it involves both purposeful searching activities and accidental encounters, as it can be difficult to separate the two. The input process may be as simple as being exposed to a title when looking at the cover of an item, or as complex as searching for information that is believed to be missing from the work. The input process is the most common operation in the entire aboutness determination process. It was conducted by all of the participants. Out of the 1,992 passages of text found in the think-aloud portions of the twelve participants' transcripts, 1,427 passages, or 72% of text passages, involved the inputting of data into the participants' consciousness.

The input process was originally divided into several subcategories. The subcategories consisted of digging, seeking, looking, searching, exploring, and collecting data. Because clearly distinguishing among these categories proved difficult, it was decided to consolidate them to create a single, larger category. Examples of how this process was reflected in the transcripts include participant statements such as:

- So the title of the book is....
- No Partying Down. [section heading]
- Nice trendy retro cover here, which means it's really old or...actually looking at it, it is in pretty good shape.
- "This flustered response to evil is the subject of this book."
- Chapter 6: Mediscare.
- The introduction is about the background behind. She is not presenting her credentials though. She brings up nutritionists....
- Skimming, skimming, skimming, looking for a capitalized word.

- Looking through, looking through. Oh! Protects the sugar industry and other big businesses.
- What I was looking for was stuff that was interesting to me.
- I am interested to know if this guy has a solution for it.... I will take a look in the back.
- I am looking for a phrase that says, “This book is about” that gives you a springboard....
- Try to find the support in the text to support that.
- I am looking for how it is all tied together.
- It was discovery and then reinforcement.
- I had an idea of what I was looking for, but I never really found it.
- So, I’m perusing.

These participant statements are representative of their data collection or input processes. At various times, participants searched for particular information, something specific, or some missing puzzle piece, but it was most often a simple matter of encountering information as they perused the items. Only Participant 4 claimed that she did not look for anything in particular when skimming the books, stating she relied solely on accidental discovery or general exploration of the items. She did, however, look for specific bibliographic structures during her input process. In short, all twelve participants both encountered information randomly and sought information specifically in their examinations of the three items. The text examination strategies, content examination strategies, and approaches to the items all are conducted during the input process.

6.2 ASSUMPTION MAKING

Assumption making, the process of making guesses or judgments about the nature of documents, is another essential component of aboutness determination. There are several different types of

assumption making. The researcher observed three specific levels: making assumptions of macro-level aboutness, making assumptions of chapter-level aboutness, and making assumptions of micro-level aboutness. Other types of assumption making were also observed, including making assumptions about the audience, the intellectual level of the document, the point of view of the author, the date that the item was published, and the tone of the writing. This category contains not only assumption making, but also activities or situations arising from these assumptions, such as questioning initial assumptions, allowing assumptions to guide the examination of the text, and making incorrect assumptions. Out of the 1,992 passages of text found in the think-aloud portions of the twelve participants' transcripts, 320 passages, or 16% of text passages, involved the making of assumptions. Macro-level assumptions were found in 6.4%, chapter-level assumptions in 4.3%, other assumptions in 2.7%, and micro-level assumptions in 2.6% of text passages.

All twelve participants made assumptions. Each participant had a unique approach to the overall process of aboutness determination, so unsurprisingly, variations in the numbers and types of assumptions made by the participants were found. Some participants primarily made assumptions of macro-level aboutness, whereas others focused on assumptions of chapter-level aboutness. The researcher observed that there were variations among the participants in the number and the types of assumptions they made; these variations appear to be based on the nature of the participants' examination processes.

The two primary models of aboutness determination observed among the participants were the Pearl Growing approach and the Puzzle Building approach. Pearl Growing, discussed further in the next chapter, begins with a core notion of the item's aboutness that evolves into a more complete understanding. In this process, the core idea is a grain of sand that develops into a

fully-grown pearl of understanding as layers of complexity are added. The pearl may require further development if the participant's initial understanding of the aboutness is inadequate. Pearl Growing may be used to determine either chapter- or macro-level aboutness. Puzzle Building, also discussed in the next chapter, begins with the participant gathering individual details from the item's content and attempting to fit the discrete pieces of the puzzle together to construct a complete picture of the item's aboutness. Puzzle construction may occur at various points during the process. Puzzle Building can occur on both the macro- and chapter-levels. These levels may or may not appear in the same analysis. This model can best be summarized by the phrase "the whole is the sum of its parts." In many cases, the number of macro-level aboutness assumptions was larger among the participants using non-linear processes and a Pearl Growing approach; whereas with more linear and Puzzle Building approaches, the participants tended to include fewer assumptions of macro-level aboutness and were instead focused on assumptions of chapter-level aboutness. There was one exception to this generalization. A summary of the types of assumptions made by the participants and their favored approaches and aboutness models is found in Table 6.1.

Table 6.1: Participants' Assumption Types, Models, and Examination Types

	<i>Assumption Type and Number of each</i>	<i>Total</i>	<i>Model Used</i>	<i>Examination Types</i>
Participant 1	20 Chapter/8 Micro 3 Macro/3 Other	34	Puzzle Building	Linear
Participant 2	12 Chapter/9 Micro 5 Macro/3 Other	29	Puzzle Building	Linear
Participant 3	14 Macro/12 Other 1 Micro	27	Pearl Growing	Non-Linear, Two-ends, and Linear
Participant 4	8 Macro/1 Other 1 Micro	10	Pearl Growing	Linear
Participant 5	11 Macro 8 Chapter	19	Pearl Growing	Two-Ends
Participant 6	10 Macro/15 Other 6 Chapter	31	Pearl Growing	Linear and 2 Non-Linear
Participant 7	15 Macro/2 Other 7 Chapter	24	2 Pearl Growing and 1 Puzzle Building	Two-Ends
Participant 8	18 Macro/7 Other 6 Chapter/13 Micro	44	Puzzle Building	Linear
Participant 9	6 Macro/3 Other 2 Chapter	11	2 Pearl Growing and 1 Puzzle Building	2 Two-Ends and 1 Linear
Participant 10	25 Chapter/19 Micro 17 Macro/3 Other	64	2 Puzzle Building and 1 Pearl Growing	Linear
Participant 11	11 Macro/2 Other	13	Pearl Growing	Two-Ends
Participant 12	10 Macro/3 Other 1 Micro	14	Pearl Growing	Non-Linear and 2 Two-Ends

The data in this table support the notion that the more focused the participant is on the individual pieces of the work and not the entire item, the more likely the participant will be to make assumptions of aboutness at the chapter-level and micro-level, and fewer assumptions at the macro-level or about other aspects of the entire text. In other words, those using linear, puzzle building approaches tend to be more chapter- and micro-aboutness focused, while those using two-ends or non-linear, pearl growing approaches tend to focus on the macro-level aboutness and other types of macro-level assumptions, such as audience, intellectual level, date, tone of language, and point of view. Because the participants' processes differ, there are variations.

Participants 1, 2, and 10 used only linear approaches to examining the text. They spent a great deal of their time looking at the individual chapters and being exposed to a greater level of detail. They tended to make more assumptions of chapter-level and micro-level aboutness. Three of these four participants used only Puzzle Building. Participant 10, while primarily a puzzle builder, used Pearl Growing for one of the items. Her aboutness assumptions though were primarily at the chapter- and micro-levels; assumption levels that are more in line with the Puzzle Building method. Participant 8 was the exception to this generalization. While he conducted a strictly linear examination and used only Puzzle Building as a model, he made numerous macro-level assumptions and other assumptions. He shows that focusing on the individual chapters and the details of an item does not necessarily preclude making assumptions of macro-level aboutness.

For Participants 3, 4, 5, 6, 7, 9, 11, and 12, the configurations become slightly more complex, but still follow the general rule. Because most of these participants avoided strictly linear examinations of the items, they tended to focus on the more general macro-level information, rather than on the more detailed chapter-level or micro-level aboutness. Participants 5, 11, and 12 all used Pearl Growing and two-ends or non-linear approaches. Participant 5, however, also made some chapter-level assumptions, based on personal interests in the content, while skimming the text of Book One. Participants 3 and 6 used Pearl Growing only, but each used a linear approach for one of the examinations. Participant 4 used only Pearl Growing, but she used a linear approach for all three items, and of her ten assumptions, eight were macro-level. Participants 7 and 9 conducted two examinations using Pearl Growing, but each used Puzzle Building for one of the items. Participant 7 used a two-ends approach for each item. Participant 9 examined *The Crazy Makers* in a linear fashion, although she did skip about the

book quite a bit; it was not a chapter-based examination. All eight of these participants focused primarily on the macro-level aboutness.

Another trend that can be seen from the data in Table 6.1 is that the puzzle builders tended to make more assumptions (of any type) than the pearl growers. Table 6.2 takes data from Table 6.1 and sorts it by the number of assumptions made per participant. In general, most of the linear participants and the puzzle builders tended toward a larger number of assumptions. The pearl growers and the non-linear participants tended to make fewer assumptions. Because of the mixture of models, items, and approaches, no strict generalization can be made, but in this study, this appears to be a pattern. There were, of course, some exceptions. Participant 4 made the fewest assumptions, but was very linear in her examination, and Participant 6, a pearl grower, made more assumptions than Participant 2, who was a puzzle builder for all three items. This is an area for further exploration in future research.

Table 6.2: Participants' Model Use Sorted by the Number of Assumptions Made

<i>Total number of assumptions</i>	<i>Participant</i>	<i>Model Used</i>	<i>Examination Types</i>
64	Participant 10	2 Puzzle Building and 1 Pearl Growing	Linear
44	Participant 8	Puzzle Building	Linear
34	Participant 1	Puzzle Building	Linear
31	Participant 6	Pearl Growing	Linear and 2 Non-Linear
29	Participant 2	Puzzle Building	Linear
27	Participant 3	Pearl Growing	Non-Linear, Two-ends, and Linear
24	Participant 7	2 Pearl Growing and 1 Puzzle Building	Two-Ends
19	Participant 5	Pearl Growing	Two-Ends
14	Participant 12	Pearl Growing	Non-Linear and 2 Two-Ends
13	Participant 11	Pearl Growing	Two-Ends
11	Participant 9	2 Pearl Growing and 1 Puzzle Building	2 Two-Ends and 1 Linear
10	Participant 4	Pearl Growing	Linear

No matter what approach to assumption making they preferred, every participant in the study made macro-level aboutness assumptions for each item. This was the most frequently made type of assumption. The participants could make assumptions of macro-level aboutness at any time during the examination, including when encountering the cover of the item, or when the participant was writing the final declarations of aboutness (which are themselves macro-level aboutness assumptions). The following statements help to illustrate this component of aboutness determination.

- It looks at Congress and cells.
- So apparently, she is taking it through the whole life of the person. I am assuming when she's talking about feeding, it's not just literally the brain, but the whole body. But, we'll see here.

- From that, it seems like she's going to talk about eating a lot more natural food, not the processed foods; maybe raw food. Things that are not necessarily manufactured, but that the earth produces.
- I would assume that the title refers to political issues. The subtitle is talking about political matters or the political issues that really matter.
- So, I would say this is probably aimed for Generation X or Generation Y, trying to give us the nitty-gritty of some complex, governmental things.
- So, it looks like it is really going to be talking a lot about our notions of evil. How they have changed over time.

These statements are typical of the participants' assumptions in reference to macro-level aboutness. Some reflect statements made in the beginning of their examinations, while others reflect assumptions made later in the process. Some of them are completely off base, while others are far more accurate.

Eight participants made chapter-level aboutness assumptions, three of which were focused primarily on chapter-level aboutness. This was most common with participants using a linear, Puzzle Building approach. The other five made chapter-level assumptions only occasionally, and those assumptions were not as vital to their aboutness determination approaches. The following statements from the participants who made chapter-level assumptions help to illustrate this component of the process.

- So, the first one's about voting. The second one's about take action young adults.
- "Civil Fights," which is obviously about the ACLU and minority issues.
- "Public Babysitting," which talks about out-of-wedlock pregnancy and drive-in movie make-outs.
- Chapter 4 talks about older people and the growing burden they will be upon the younger generation. [Wrote down: Too many]
- Chapter 17, which thankfully is close to the end, is about political ethics.
- Chapter 1 seems to be about early Christian beliefs, what's in *The Bible*, that sort of thing.
- "Golden Arches," Chapter 16, looks like foreign policy issues instead of terrorism itself. It mentions nuclear arsenals.

These statements are typical of the participants' assumption-making activities regarding chapter-level aboutness. Each reflects the participant's understanding of a particular chapter. Some of the

participants made chapter-level aboutness assumptions for each chapter, while others only for a limited number of chapters in the items. Some, such as Participant 5, made chapter-level aboutness assumptions for only a single item, while others made chapter-level assumptions for each of the three items they analyzed. Some participants who were not primarily focused on linear examinations or Puzzle Building still made chapter-level aboutness assumptions. This was observed primarily with pearl growers who occasionally used the chapters to reinforce their assumptions of macro-level aboutness.

In addition to the three primary assumption types, the participants made other assumptions as well. These were sometimes related to smaller units of the text, i.e., the participants made micro-level assumptions about the aboutness of a section, paragraph, or even a sentence. Or, the participants sometime made assumptions about aspects of the text not directly addressing the concept of aboutness, such as audience, date of publication, intellectual level/credibility, language/tone, and point of view. Some participants made numerous micro-level or other types of assumptions, while others made relatively few. The following statements help to illustrate this component of the process.

- This is geared to young adults.
- He talks about a Georgia black man accused of raping a white woman. This is obviously race relations.
- This is going to be flip and trendy I'm sure.
- It has a conversational tone and the use of the so-called vernacular that dates it quite a bit.
- This book strikes me as being older, maybe from the late 70s.
- It might be a little more toward the liberal perspective, but I am not sure how strong.
- Maybe it would be something the average person could read with a certain amount of ease, not necessarily scholarly.

When asked about the role of assumption making, Participant 1 stated she felt that she made a lot of “assumptions because of experiences and knowledge.” She also stated that some of her

assumptions started as early as the item's cover or table of contents. Regarding *We've Got Issues*, she felt that she had an understanding of the macro-level aboutness after looking at the chapter titles, "With the first [book], I assumed that I knew what the intent was, just from looking at the table of contents." When examining the items, she would skim each chapter, make assumptions of the aboutness of the chapters, and then attempt to tie them together to create her final aboutness statements. This chapter-level aboutness-based process meshed well with her overall linear Puzzle Building approach.

Participant 2 made few macro-level aboutness assumptions, but she did make chapter-level and micro-level assumptions. Some of her assumptions were incorrect, such as when she guessed that the chapter called "Public Babysitting" was about "out-of-wedlock pregnancy and drive-in movie make-outs" or when she assumed that the chapter entitled "Golden Arches" was about McDonald's. This shows that assumptions may be easily made at any given level—whether they are correct or not is another matter entirely. Participant 2 had better luck with her assumptions about the audience for *We've Got Issues*. Very early in her examination she began to make assumptions about the Generation X audience, based on the photographs scattered through the item. "Again, more pictures of young people, so it looks like this is marketed towards a younger generation."

When asked how frequently she made assumptions in her process, Participant 3 stated, "Pretty often."

I would make a guess, then try to back it up with what I was seeing [while] flipping through.... With *The Crazy Makers*, I guessed what it was about from the title—that was what my eye was drawn to. I was trying to look for evidence that my guess was right.... I think the initial impression of each book begged to have a guess made and then proven. I did tend to do that.

Participant 3 indicates that the process begins with the making of assumptions, but quickly moves to include the R-cubed (R^3) processes, which are reinforcing, refining, and refuting. The aboutness determination process becomes much more difficult to conduct when an initial assumption cannot be developed.

With *The Death of Satan*, it was really ambiguous. It was difficult to make an initial guess, other than restating the subtitle. It was the hardest and it was more of a discovery. I needed to look at each chapter to verify he was going through history sequentially. Look at some of his arguments in depth. With *The Crazy Makers* and *We've Got Issues*, I already had a pre-set assumption about what the books were about. I just needed to verify it.

In the case of *The Death of Satan*, being unable to make an assumption about the macro-level aboutness led the participant to change her overall approach to the item. Her standard process was not working, so in response, she was forced to adapt and used a more linear approach on *The Death of Satan*. In addition to making aboutness assumptions, Participant 3 also made assumptions about the authors and their points of view. This occurred especially in the first item, where she attempted to determine the author's political leanings. She stated, "I think I made a judgment call based on the fact that she looks young on her jacket photo. And given the physical presentation of the book, I think made it a little misleading." After thinking about it further, she was no longer sure that the author was leaning toward the left after all.

Participant 4 made few macro-level aboutness assumptions, but for *We've Got Issues*, she did state, "So I am assuming that this is going to be a book about politics.... I am seeing that they are trying to bring politics to a new generation." Her macro-level assumption came from her skimming of the table of contents and the introduction. For *The Crazy Makers*, however, she did not wait as long to make a prediction. For *The Crazy Makers*, she started making assumptions based on the cover. She stated, "I see really, really big hamburgers on the cover, which makes me think this might be about the obesity epidemic, but I don't know for sure until I check it out."

Her statement shows that not all of the participants' assumptions were correct. In this case, the assumption was far off course, but she quickly corrected that by making a second assumption about the content of *The Crazy Makers* that was accurate. She stated, "I am guessing that they are talking about how your brain works as you are growing from birth to adulthood, and maybe the effects that food will have on that." When asked when she made her first assumptions of aboutness, she replied:

With *The Crazy Makers*, from the cover, I had a pretty good idea what that was going to be about. *We've Got Issues*, the introduction was a pretty good indication of what it was going to be about. Then, reading the chapter blurbs reinforced that, but I was pretty well on the mark from the introduction. In *The Death of Satan*, the introduction talked a little bit about how people viewed evil. So, most of them were from the introductions.

Her assumptions came early, but those early assumptions can change as more information is encountered; assumptions can be refuted and/or refined.

Participant 5, when asked to describe the process of determining aboutness, stated, "Basically, the idea is to have some sort of assumption/hypothesis and then try to find the support in the text." He stated, "I try not to judge a book by its cover. Probably subconsciously I was influenced by titles," but he felt that he should wait until he got into the content of the book to make his first assumptions. This did not always happen. For *The Crazy Makers*, he stated:

I had the assumption after reading the full title: *The Crazy Makers: How the Food Industry is Destroying Our Brains and Harming Our Children* that was all I needed to read. I could have read that and come up with the same conclusion.

He did, however, go into the text to reinforce his aboutness assumptions. Assumptions that have not been reinforced, refined, or refuted are worthless. In *We've Got Issues*, Participant 5 spent time skimming the chapters because of his personal interest in the subject matter, a process that he did not need to perform in order to determine aboutness. During this examination, he made several chapter-level aboutness assumptions, such as stating that Chapter 3 was about

“economics and spending money and how we should save more. Be more responsible.” He then wrote down “economy” in his notes. He also made assumptions about the tone of Book One; he assumed its tone was “hip” and “trendy.”

Participant 6, when asked about her process, said that she did “a lot of skimming and assumption making.” She stated, “I made a lot of assumptions about who the author was; not so much their credentials or what school they went to, but who the author is in terms of their perspective.” She included other factors, such as point of view, into her assumption-making processes. She stated that her initial sense of a book’s aboutness comes from her first glance at the cover. It happens “when I look at it. I am a rather visual person.” She described the aboutness determination process as an “evolution;” her understanding of the book changed and evolved as she encountered more data during the examination. One of the more unusual assumptions made about an item came from Participant 6. Upon seeing the font inside the book, she stated: “It’s got a big font, which sometimes actually puts me off a little bit; like I don’t think it’s as smart of a book, or something.” She, like Participant 5, spent extra time on Book One. When she first began her analysis session with the researcher, she was unsure of how to examine the books and felt that she did not know what the researcher wanted from her performance. Without asking for further information, she decided to carefully skim the book in a linear fashion, despite her general dislike of that approach. Her initial process was very chapter-based and linear to ensure that she was performing the tasks at a level that she perceived to be acceptable to the researcher. During this chapter-based examination, she made several chapter-level aboutness assumptions. After hearing again that she could perform the task in any way she liked, she changed to a non-linear process. Her assumptions, after that point, were focused solely on macro-level aboutness.

Participant 7 stated that she used the “more general parts of the book—the table of contents, titles of chapters, introductions, and conclusions” to get a general idea of the book’s content. She found that “flipping through the chapters and reading some of the text did not help.” The skimming of chapters helped to reinforce her initial impressions of the book, based on the more general features she had already observed. Her first assumptions came from the covers of the books, the title pages, and the “general parts of the book.” “I think it is a process of assumptions,” followed by “fine-tuning.” Fine-tuning is a good description of Refining, one of the R³ processes described in the next section.

Participant 8 found that the aboutness determination process entailed using information gathered from the title and table of contents of a book to make an initial, rudimentary assumption of each item’s aboutness. Once he had made the initial, broad assumption, he could go through the item attempting to create a narrower, more precise understanding of that item’s aboutness. He did make some chapter-level assumptions, such as, “Social Insecurity—still trying to be clever with the chapter headings. It’s probably about Social Security, or lack thereof.” While not an unexpected or wild guess, this type of comment still represents an assumption of chapter-level aboutness. Participant 8 made more macro-level assumptions than assumptions of chapter-level or micro-level aboutness. This was primarily demonstrated in his running commentary. In his note-taking, however, he included assumptions about the aboutness of sections, pages, or sometimes even paragraphs of the text, reflecting the level of detail of his impressions; for instance, he made notes such as “psychotropic drugs,” and “ food culture,” though those reflect only minor concepts in *The Crazy Makers*.

Participant 9 stated that she developed her assumptions of the aboutness of the first two items rather quickly, so for her the method of determination was primarily focused on the R³ processes instead:

I pretty much came up with what I thought the book was about fairly early in the process and then looking through the text, it just reinforced it. There was nothing that threw me for a loop or didn't fit in with what I think these books will be about.... I came up with what I thought it was about, and tried to look for things that reinforced or proved me wrong. The stuff I found in these books was reinforcement.

In addition to macro-level aboutness assumptions, she also made assumptions about the author's point of view ("This looks somewhat leftist."), the date of publication ("This is probably from 2000."), and other characteristics of the text.

Participant 10 was primarily concerned with making assumptions of chapter-level aboutness. Her process was generally very linear and chapter-based. She did, however, make some assumptions about the macro-level aboutness of the items; for example, she noted that some of the books were easier to decipher than others. Shortly into the process, she developed an assumption of the aboutness of *We've Got Issues* based on her understanding of the individual chapters, whereas with *The Death of Satan*, the process took far more time for her to gain understanding. She stated that she made some other types of assumptions based on the physical appearance of the items, especially the cover design.

The first book, *We've Got Issues*, you could look at the cover and you could easily get a sense that it is going to be fun. It's going to be pop culture, whereas with the last book, it is going to be much more serious, even though the pictures were kind of funny.²⁹⁰

Participant 11, too, stated that she began making assumptions, "from the very beginning," i.e., from the cover of the work. "I thought *We've Got Issues* was a what-is-important-in-life book. I

²⁹⁰ This quote was used earlier in the document to illustrate the influence of cover art and design and usefulness in identifying intellectual level.

made an assumption about that one right away based on the cover. On *The Crazy Makers*, I started making assumptions based on the cover too.” She noted that her understanding of aboutness evolved throughout the examination of each item:

The more information I acquired by skimming, the more I let my ideas about the book change. I didn’t have an idea about the book and then look for ways to force my idea of what it was about. In *The Death of Satan*, I couldn’t. At first, I thought it was about how we are desensitized, as a society, to evil. I was looking at it, thinking this book is about how we have desensitized our kids and that’s why everyone is killing everybody and we’ve got a problem. When I went to the back, I thought, now he’s looking at the other side of it, the flip side, about blaming others. So, my ideas did just change as I got more information.

For Participant 11, the determination process was not static; it was a process of evolutionary development. It was an expansion of her understanding. Her assumptions about the content changed, based on the input of additional information, which allowed her to reinforce assumptions that were correct, refute unsupported ideas, and to refine her understanding of content as needed.

Participant 12 reported beginning the process by assuming a basic understanding of the macro-level aboutness of the works from their titles, but he quickly moved to other bibliographic features to get more data. “So, I would say yes, from the title, it goes from the impressions from the cover, and then to the introduction, then the table of contents.” He stated the rest of the examination was guided by his initial assumptions:

And then you try to formulate the question that would refute that assumption. If it is *not* this, what are the things that would tell me? As I was looking through it, I believe I said, “Is it going to focus on any other social issues?” You are looking for the positive, but also its negatives, trying to flush out a definition for both ends.

As Participant 12 indicated, the assumptions made by the participants could often guide their text examinations. Eight of the participants stated that they felt that their assumptions shaped the entire process. Participant 3, for example, stated that from the title, she had guessed what *The*

Crazy Makers was about. From that assumption of aboutness, her eye was drawn to concepts that supported her assumptions. She sought out evidence that confirmed her initial assumptions. Participant 7 also noted the same experience. As a result, she stated: “I noticed mental issues a lot. I picked up on those issues quite a bit. In *We’ve Got Issues*, I noticed a lot of references to Gen X. In *The Death of Satan*: evil. You look for that word a lot.” She stated that she was looking for those concepts or words that would validate her assumptions. “I think I did look for words like devil or evil; words that are going to associate with what I already think the book is about.” Participant 9 concurred. She stated:

On *We’ve Got Issues*, I thought I had an idea of what the book was about already, so what caught my eye were statements that reinforced what I already thought. On *We’ve Got Issues*, stuff about Gen X or politics and young people caught my eye. On *The Crazy Makers*, things about nutrition and processed foods caught my eye.

She, too, sought information that would fit her assumptions; those assumptions guided how she examined the items and what she noticed about them. Eight out of twelve participants stated this selective attention was common in their processes. The other four participants did not mention this issue; which does not, however, mean that it did not factor into their decision-making.

While there was considerable assumption making throughout all of the examinations, participants were not always confident in their assumptions. Seven of the participants expressed doubts about the soundness of their assumptions, and eleven of the participants made at least one incorrect assumption about one or more of the items. Doubts about their assumptions were expressed by simple question marks written in their notes or by statements such as, “I am not sure,” “I could be wrong,” or “I don’t know for sure until I check it out.” Personal doubts about accuracy and the potential for judgment errors make the R^3 processes, particularly reinforcement, critical in the aboutness determination process.

The number of incorrect assumptions made by each participant varied. Of the assumptions that Participant 1 spoke aloud, only two were incorrect. Participant 2 made six incorrect assumptions. While six is not a large number, those six often reflected rather extreme leaps in logic. Not only did the number of incorrect assumptions vary among participants, but so did the magnitude of the mistaken notions and the impact on the entire process. Participant 1 believed that the chapter on taxes in *We've Got Issues* was about welfare, but quickly determined the true nature of the chapter-level aboutness, and for another chapter, she purposely added some information that was not part of the aboutness. She wrote down "love of learning" even though she knew that "it's not appropriate," but she stated, "I like writing that down." This was not a mistaken assumption of the aboutness, but a purposefully written misstatement, which did not figure into her description of the aboutness. Participant 2's incorrect assumptions were larger in scale. She stated that a chapter in *We've Got Issues* about public schools and the school voucher debates was about "out-of-wedlock pregnancy and drive-in movie make outs." Early in her examination, she stated that *The Crazy Makers* was "about Congress and cells." In her view, the second half of *The Death of Satan* was "mainly about the Civil War." While she realized that the second and third items were not about Congress or the Civil War respectively, her chapter-level aboutness assumptions did not change because she did not explore the chapters in much depth. Participant 4 provided an explanation of how accurate aboutness understanding can be achieved despite incorrect early assumptions:

In *The Crazy Makers*, after going through the sections in each chapter, I had a little more understanding that it focused on brain chemistry, not just, like my initial idea from the cover that this was going to be about the obesity epidemic in the United States. Reading through the introduction and the section headings, I knew it was more about how your brain is affected by nutrition and how that development is affected.... It started out as one thing in my head, but as I was reading, I realized it wasn't that, it was something else. I kind of had them both in my head. I was keeping the obesity thing in my head thinking that at some point it

was really going to mesh with the brain chemistry idea. As I went along, it seemed to be just more about affecting the brain. It was about obesity, but not as much as I thought it was about obesity. So I kept them both in my head to see if they were going to mesh, but one sort of pulled ahead.

She tried very hard to retain the original assumption but eventually it had to give way to a more accurate aboutness concept. What she reveals in this statement though, is that she never completely let go of her original assumption. She stated, “It was about obesity, but not as much as I thought it was about obesity.” The first part of this statement is not true; *The Crazy Makers* is not about obesity. That initial assumption stayed with Participant 4 despite finding no textual support. She does not mention obesity in her aboutness statement, because there was no reinforcement for the idea. The content refuted her assumption, and she finally had to refine her assumption in order to continue developing her understanding of the aboutness. Yet, when discussing the book in the interview, she stated, “It was about obesity.” It proved very hard for some to let go of initial assumptions even in the absence of corroboration or support.

6.3 R-CUBED (R³) PROCESSES

Assumptions, whether accurate or not, are vital in the aboutness determination process, but they do not further the process without the supporting activities that make up the R-cubed (R³) processes. These processes support mental aboutness determination processes, but they also are useful in the formulation of verbal expressions of the understood aboutness, i.e., the aboutness statements required by the design of the research study. The R³ processes are refuting, refining, and reinforcing. These processes are closely tied to assumption making.

Refutation is recognizing information that proves an assumption to be false, forcing the participant to rethink previous assumptions. Refinement is a process leading from a general idea of aboutness to a more detailed and precise understanding of it. Reinforcement involves finding information to support an assumption. It allows the participant to move forward knowing that he or she is on the right track. The latter two of these processes appeared frequently throughout the participants' examinations, but refuting was rarely observed. In the following sections, each process is described, and then illustrated with passages from the participants' transcripts.

6.3.1 Refuting

Refutation was the least frequently observed of the R³ processes, appearing in only 0.35% of text passages in the twelve transcripts, or 7 times in 1,992 possible text passages. Generally, the participants did not explicitly mention refuting their assumption of aboutness; most just moved on to the next idea without acknowledging the change. The few statements made by the participants include Participant 1 stating, "Poor Fred—probably about old welfare. Death and Taxes—oh, it's about taxes." Participant 4 discussed her incorrect assumption that Book Two was about obesity; however, she was reluctant to abandon her original assumption. She attempted to bring that notion together with what she was discovering in the text, but eventually, she had to acknowledge that it was not about obesity and "it was something else." During the interview, however, she contradicted herself mentioning that it *was* about obesity. So, despite refutation, she still clung to her initial assumption although she did not include it in her aboutness statement. Participant 7 acknowledged that her assumption about the age of *We've Got Issues* was incorrect.

Some participants made conscious efforts to refute their initial assumptions, but found that further investigation substantiated their original ideas about content and aboutness. Participant 9 stated, “With *The Crazy Makers* and *We’ve Got Issues*, I came up with what I thought it was about, and tried to look for things that reinforced or proved me wrong. The stuff I found in these books was reinforcement.” Participant 12 stated that he tried “to formulate the questions that would refute that assumption.” He would ask himself, “If it is not this, what are the things that would tell me?” He stated, “You are looking for the positive, but also its negatives.” About *We’ve Got Issues*, Participant 11 stated, “I thought this book was about something else when I looked at it. So, when I started skimming through and found out it wasn’t anything like what I thought originally, I had to completely discard that idea.” Once an assumption was refuted, she and the other participants would often abandon their incorrect ideas, but sometimes they were able to refine their assumptions to account for new or more detailed information.

6.3.2 Refining

Refinement is an important part of the aboutness determination process. It is a process of sharpening one’s preliminary opinions on aboutness. While refuting appeared only in a tiny portion of the total activities in determining aboutness, refining appeared more frequently. Out of the 1,992 passages of text found in the think-aloud portions of the twelve participants’ transcripts, 165 passages, or 8.3% of text passages, involved refining. All of the participants used refining in their examinations, usually in one or two ways. The participants sometimes used it to sharpen their overall understanding of an item’s aboutness; they adapted their notions of what the item was about by adding detail or clarifying meaning as they encountered additional

information. Participants also used refining to hone their verbal descriptions of the aboutness, by changing or adjusting the language to more precisely reflect their understanding of an item's total aboutness. Participants used the refining process on aboutness at the macro-level and the chapter-level.

Refinement was most frequently observed in examinations made by participants using the Pearl Growing model, and refining is a key feature of that model. Pearl Growing refers to the evolution of a refined, complex understanding of aboutness from an initial general impression or impressions. The process involves a combination of input, assumption making, reinforcing, and refining. In the Pearl Growing model, the process of refining may be simple and take little time, or it might be an extended process, depending upon the nature of the initial assumptions and the nature of the content being examined. Participant 4 stated that her examination of *We've Got Issues* involved "fine tuning," though her overall understanding of its aboutness remained fairly constant. Her understanding of *The Crazy Makers*, however, changed radically as she proceeded. Participant 5 noted that his assumptions evolved and changed as he encountered new information. Participant 6 stated she felt aboutness determination was an evolutionary process. Participant 7 stated that two of her notions of aboutness were refined as she examined the works more closely; the process was iterative.

I knew what the book was about, but as I skimmed, I was fine tuning what the book was about. It was a refocusing. The skimming adds to the details of how the aboutness is implemented. I have a better understanding or feel for the whole text.

Refinement is also a process used by those conducting Puzzle Building approaches. Participant 1, while primarily a puzzle builder at the macro-level, used some Pearl Growing techniques (including refining) in her analyses of the aboutness of individual chapters. Participant 8, who was also a very linear puzzle builder, used refining to develop the border for his puzzle, but he

also used it to put the finishing touches on the descriptions in his aboutness statements. The final versions of his statements showed refining during the final steps of the process. When he was asked if he made assumptions and how they fit in his process, he stated:

At the beginning when I was looking at the titles and the table of contents, just the beginning, I made more assumptions and tried to make note of where I was making assumptions and where I was quoting from the book. I think as I went through the process, instead of continually changing ideas and assumptions, I was just honing it down. One more sharpening pass with it. I was trying to refine it down until I had the edge of aboutness instead of a blunt idea.

Refinement is a process that allows the participants to sharpen the focus of their understandings of aboutness. Some used it more frequently than others, but every participant used it.

6.3.3 Reinforcing

Reinforcement is the process of gathering information to strengthen or otherwise support an earlier assumption of aboutness, which confirms for the participant that he or she is on the right track. Reinforcement is the most frequently observed and discussed of the R³ processes. Out of the 1,992 passages of text found in the think-aloud portions of the twelve participants' transcripts, 816 passages, or 41% of text passages, involved reinforcing. Over two-fifths of the participants' activities during the examinations were related to reinforcing their assumptions of aboutness. Among the participants, the percentage of text passages related to reinforcing assumptions ranged from 23% to 64%. Participant 2 had the highest percentage of statements related to reinforcing with 64%, followed by Participant 7 with 47%, and Participant 5 with 46%. On the opposite end of the spectrum were Participant 12 with 23% and Participant 6 with 26%. There appears to be no correlation between the prevalence of reinforcing activities and any particular aboutness determination model or time spent analyzing the material. Participant 2 used

a lengthy, very linear Puzzle Building approach, but the second most frequent user of reinforcing was Participant 7, who primarily used Pearl Growing and a short two-ends approach. Pearl growers appear at the top, middle, and bottom of the list and most of the puzzle builders were somewhere in the middle, with the exception of Participant 2 at the very top.

Participant 3, when asked about reinforcing, stated that she made assumptions that she then tried to back up by flipping through the items. “I was trying to look for evidence that my guess was right.... I think the initial impression of each book begged to have a guess made and then proven. I did tend to do that.” Participant 4 stated that in *We’ve Got Issues*, “the introduction was a pretty good indication of what it was going to be about. Then, reading the chapter blurbs reinforced that, but I was pretty well on the mark from the introduction.” Participant 5 stated something similar, “basically the idea is to have some sort of assumption/hypothesis and then try to find the support in the text for that.” Participant 7 stated that skimming the chapters helped her reinforce what she already thought the book was about. Participant 9 felt that because she had developed an idea of what the book was about, her eye was drawn to words or concepts that reflected her assumptions. This helped her to reinforce her already established notions of aboutness. “I pretty much came up with what I thought it was about fairly early in the process and then looking through the text, it just reinforced it.” Participant 11 stated that to her, the end of the process “is about reinforcement.” In the beginning, she felt that she was open to many possibilities, but as you progress through the item, you must make assumptions and then try to support or reinforce them.

6.4 SENSE-MAKING ACTIVITIES

Sense-making activities are critical to the aboutness determination process, but they are not as frequently observed as the input process or assumption making. Sense-making comprises activities such as figuring out the meaning and importance of various concepts (i.e., reasoning), finding context for the information encountered, interpreting or translating statements from the text so that they are understandable to the participant, categorizing, and others. The major sense-making activities are described and illustrated with statements from the participants' transcripts.

6.4.1 Reasoning

Reasoning is the process of clarifying concepts, figuring out content, or trying to determine the meaning of various passages of text. It goes beyond simply seeing the information; it entails deciphering the information and creating something sensible from it. It is the process of determining to which referent a sentence or a passage refers. All twelve of the participants performed some reasoning activities in their examinations. Out of the 1,992 passages of text found in the think-aloud portions of the twelve participants' transcripts, 113 passages, or 5.7% of text passages, involved reasoning. Reasoning begins when the participant makes an initial statement indicating confusion or uncertainty as to the meaning of the content. There is then an attempt to find additional information (usually in the same paragraph or on the same page) to clarify the content's meaning.

Participant 1 stated, "What does he think is the little sister? Skimming, skimming, skimming, looking for a capitalized word.... Medicaid, oh yes, Medicaid." She saw the phrase "little sister," which to her did not make sense in the context of the work. In order to understand

the author's meaning, she searched further in the text to find more information about the use of the phrase. Participant 2 had a similar problem when the author of *We've Got Issues* made a reference to a line in Mike Nichol's *The Graduate*. She had no idea what "plastics" was referring to. "Then he talks about plastic, which I would think has to do with credit cards, but it really doesn't. It talks about college-tax credits." She did not understand the reference, but she did grasp that section entitled "Plastics" was about something other than credit cards. Some participants put extra effort into clarifying the content, while others simply moved on to other things. In looking for the author's primary argument in *The Death of Satan*, Participant 3 tried to make sense of what she understood immediately. She then used reasoning to understand the content and determine a portion of the aboutness based on her understanding of the information's context. "So maybe that's the argument here, that Satan really isn't a single sentient being, but perhaps Satan is found in whatever evil things are happening in history at the time." Others used their reasoning ability to try to determine the point of view of the author. Participant 8 stated:

I haven't gotten deep enough into it to know if it's supporting a liberal or conservative point of view or something a little further to an extreme. I am not sure. Some environmental issues, which are something that conservatives tend not to worry about, at least in my experience. It might be a little more toward the liberal perspective, but I am not sure how strong. That would take reading the book more thoroughly than I am now.

Reasoning is not an unexpected activity or behavior; it is a frequently observed, common part of the aboutness determination process. It is the most general sense-making activity, and is the foundation of sense making. The other sense-making activities are more specialized in their application or scope.

6.4.2 Finding Context

Finding context, the next sense-making process, was performed by eight of the twelve participants. It is the process of seeking relationships and connections among the concepts within the text to help the participants interpret meaning. It may involve finding other passages of text or sets of facts or conditions related to the concept. Out of the 1,992 passages of text found in the think-aloud portions of the twelve participants' transcripts, 53 passages, or 2.7% of text passages, involved finding context. This category, however, is underrepresented in these figures, because many of the other sense-making activities are performed in order to put the content into context. Activities such as making associations and categorizing help the participant to understand the item by its perceived or actual relationships to other items.

Participants 2, 4, 11, and 12 showed little overt interest in this activity, but the other participants searched for a larger context as a way to better understand the nature of the items. Participants looking for context chose varying approaches to finding that information, and they looked for different types of information to establish context, but a majority of the participants were seeking meaning and connections among the concepts within the texts. Sometimes categorizing was used in conjunction with finding context as a means of labeling or describing these relationships. Other areas of interest in establishing context centered on point of view, the author's background, the time period in which the work was written, and the discipline or field to which the author belonged. Participant 8 explained how context was helpful to him in determining meaning. He stated that the title and the subtitle provide an initial, simplistic, contextual framework for his understanding of the item's aboutness.

It always gave me a place to start, whether it was food, politics, or religion/philosophy of religion. I always knew I was working in that framework.

If they say, in *The Crazy Makers*, harmful, then I can assume that it is about physical and mental health, not that you are in danger of eternal damnation.

While this was not an example of finding context, it was a description of why context is important. It provides a framework or a baseline from which to work to understand the background and meaning of the entire work. Participant 6 explained that the author's perspective or point of view played a role in providing context for her aboutness determination process.

I think understanding or getting a sense of where the author is coming from and their perspective helps me to determine the presentation of the information. And the perspective of the author naturally skews how they are presenting the information because they obviously have opinions and getting a sense of what their opinions are, at least to a small degree, helps me to understand the context of the book.²⁹¹

Participant 6 sought this type of information to gain a better understanding of the context in which the book was written and in which the content is situated. The following quotations help to illustrate the participants' thoughts on finding context.

Participant 1 was interested in the discipline or profession of the author of *The Crazy Makers*. Several times, she made statements about the author's background. "Okay, hmm, sounds like a nutritionist to me... She may be a nurse, maybe not.... Ah, she's a nutritionist." She also expressed concern about the dates of the literature mentioned in *The Death of Satan*. "What year was this? Just can't help myself, Franklin and Edwards. Okay, so that's when that happened.... When were these all written?" She found the answers, and they provided her with a sense of the time period that author was describing in those passages. Participant 3 was concerned about when *We've Got Issues* was written. She had not looked at the publication date, but she realized, "Okay, well it is referring to President Clinton, so this is probably written right before the 2000 election." She also was concerned about the scope of the content found in *The Death of Satan*.

²⁹¹ This passage was used earlier to describe the participant's interest in point of view.

Then we have some chapters like “The Devil in the Age of Reason.” I don’t know if this book is necessarily, strictly America. I thought he said he was going to stick to Americans losing their sense of evil. Okay, well, chapter one is “The Old Enemy Comes to the New World.” So, I guess, we have to give a little background here.

Participant 6 was particularly interested in the background and qualifications of the author to write *The Crazy Makers*.

The introduction is about the background behind. She is not presenting her credentials though. She brings up nutritionists and how she first walked into a health food store and changed her life through learning about nutrition and food. I am not sure how that qualifies her to write this book, if she is not telling me how she is qualified, other than that she changed her health through changing diet. She is coming at it from a very personal perspective.... Oh, here she finally tells me: “as a clinical nutritionist.” That’s good.²⁹²

Context was very important to Participant 6. In all three examinations, she stated that she wanted to figure out where the author was “coming from.” She was particularly interested in the point of view or perspective of the authors.

This is going to take me back to the introduction, so I can get an idea of where he is coming from; what the information and perspective he is trying to present me. It looks as though, just from my skimming of the introduction that he is exploring man’s relationship with the unknown and the unfathomable. He hasn’t gone so far as to say that; how humans relate to the oceans and their myths and legends and tales about it. He is not giving me context for the period that he is exploring.

In the first two items, she was able to identify where she thought the authors were “coming from.” For her third item, *Folklore and the Sea*, she was still unsure of the context in which the item was written, when she finished her examination.

6.4.3 Interpreting

Interpretation (or translation) is another common sense-making activity observed in the participants’ aboutness determination processes. Out of the 1,992 passages of text found in the

²⁹² Part of this quote was used earlier to illustrate the participant’s interest in the author’s background.

think-aloud portions of the twelve participants' transcripts, 236 passages, or 12% of text passages, involved interpreting. Interpreting the content occurs when participants explain to themselves what they have just read. This may be necessary to figure out the meaning of the sentence, and it also provides a way to restate or repeat the information in more comfortable language. Translation, a common activity in conceptual analysis, stems from the interpretive nature of determining aboutness. For better or for worse, in order to analyze the aboutness of an item, it must be viewed through the lens of the individual analyst. This corresponds to a constructivist paradigm, in which the determination of aboutness can be seen as a purely interpretive, hermeneutical process. The task of the analyst is to develop an understanding of the meaning of a text by analyzing both parts and whole in order to develop an interpretation. Analysis and interpretation are derived through the filter of individual experiences, background, and knowledge. This research supports a constructivist view of the process, but the clearest occurrences of interpretive activities are not in the determination of macro-level or chapter-level aboutness. Instances of interpreting appear most frequently and explicitly in the participants' attempts to understand the minutiae of the text or the micro-level aboutness of a single statement or paragraph.

Examples of interpreting or translating can be found in the transcripts of all twelve participants. Participant 1 disagreed with certain statements made by the author of *The Death of Satan*. In one passage, the author states that Americans want Satan back, i.e., Americans want a scapegoat to blame for the existence of evil and the perpetration of evil acts in today's society. Participant 1 responded: "That's not necessarily true; they just want to be scared, because it's fun. It's a little rush. You don't get it when you're hunting for grizzly bears or god knows what. That was enough to make me stop right there." She interpreted the statement, but it did not

reflect the complexity of the author's argument. She did not understand the statement and interpreted it in a way to which she could relate. In *We've Got Issues*, she skimmed a chapter called "Reverse Robin Hood." She interpreted this title as: "Steal from the rich, give to the poor—this is geared to young adults. Then it's got to be steal from the young, give to the old." Participant 2, encountering the same chapter title, interpreted it as, "steal from the poor and give to the rich." This did not have nuance or texture of the author's wordplay, but she did pick up on the basic idea.

Examples of interpreting can be found most frequently in the transcript of Participant 2, who used this process far more explicitly than any other participant. Interpretation was used in over 24% of the text passages in her transcript; for most of the other participants, it was observed in only 6% to 15% of their text passages. Some of the participants' interpretations seemed to be on target, while others were wildly off course. Participant 2 seemed to interpret almost every statement that she encountered in the texts. Interpretive statements by her include:

- It is almost as though she is saying that if you are going to give your child formula, you might as well use a soy-based formula instead.
- "No Partying Down," probably a reference to political parties and not having them anymore.
- Really, I think he's trying to say that Social Security is very unstable.

The other participants might not have demonstrated interpretive activities as frequently, but they were still common tools. Participant 3 stated:

According to this, Gen X is interested in making more money; we're not interested in politics. Not interested in voting. I'm guessing that this is a book urging Gen Xers to vote, based on the fact that because we are interested in money, and if we're not careful, the government is going to take it away.²⁹³

While this argument was not made anywhere in the text of *We've Got Issues*, this is how Participant 3 interpreted the work's message. She saw the prevalence of economic issues in the

²⁹³ This passage was used earlier to discuss the participant's interest in the author's point of view.

author's writings and the author's goal of inducing Generation X to get more involved in politics, and combined the two in her interpretation. Other participants prefaced their interpretations with phrases such as:

- So, she's basically saying...
- She's laying out...
- From that, it seems like...
- A lot of things sound like...
- I would assume it refers to....

Interpretation is an expected, intrinsic, and vital part of the aboutness determination process. While some participants felt that the process could be "objective," each participant used personal interpretations to understand the aboutness of the books on the micro-level, macro-level, and the chapter-level.

6.4.4 Reviewing

Reviewing is the process of reexamining the data a participant has already discovered or knows. Out of the 1,992 passages of text found in the think-aloud portions of the twelve participants' transcripts, 23 passages, or 1.2% of text passages, involved participants reviewing what they knew about the document. At various points in the process, seven of the participants paused for a moment or two to take stock of what they knew; they reviewed the information they had collected about the books. This might be a brief stop in which a connection between concepts is made, or it might be a more extended review of information. This activity may occur at any time beyond the very first moments of looking at the book.

Participant 1, while examining *The Death of Satan*, found that she needed to pause after looking at Part I of the item. She attempted to get a handle on the first half of the book before moving onto Part II.

Old World truths; Satan in the New World; Age of Reason; Self. So, this was Mid-19th Century. Modern Thinking, a modern way of thinking. Industrialization means less control because they weren't on the farm; they were working for somebody else, even if they were tenant farmers they were working for someone else, in a factory. They had less daily control over their lives.... they had less control over their actions; they had more control over their inner life, moral life, religious life, spiritual life. That happened simultaneously with the other issues in the book. Hmm.

[She wrote down:] Mid 19th Century. Modern Thinking. Industrialization. Less Control. Psychological Counteraction. Spiritual Life.

This was a process of reviewing, but it also included reasoning and interpreting as well. It used a number of sense-making activities to get the participant to a point where the item made sense. She extrapolated from the chapter titles, interpreting them to make connections and to find some context. She also went through a similar process when she reviewed the notes she took throughout her examination, attempting to connect the pieces of the puzzle to get a sense of the bigger aboutness picture. Participant 4 used a similar process, but in a different way. When she began to experience difficulty in analyzing *The Death of Satan*, she turned to some reviewing activities.

I don't know where to go. I am getting that this is a history of how—it's almost semantic—people referred to evil, talked about evil, what is evil to them. I am getting that from the introduction, but I am not getting any other information from some of the chapters, other than the title. I am not really sure without reading everything where to look. I'm not sure. I don't know what to do. I guess I could say this book is about evil and the history of what is evil. That's what I am getting from the introduction and that's what I would say this book was about. I think...I am pretty sure...from the introduction, that's what it's about.

She, unfortunately, did not have much to review. She repeated the same phrase several times trying to come up with something more. She could not, however, come up with anything further to write in her aboutness statement.

Participant 11 used this process when she was attempting to write her aboutness statement. She reviewed previously-written portions of her aboutness statement before writing

any additional pieces. She began by writing: “*The Death of Satan* is a book about the definition of evil in our society.” She then went to page 234 to find some additional information. After finding what she wanted, she reviewed, “*The Death of Satan* is a book about the definition of evil in our society,” then added “and about the conflicting ideologies. One is the practice of labeling evil.” After this, she read the last paragraphs of the book. Then, she reviewed her statement again: “*The Death of Satan* is a book about the definition of evil in our society, and about the conflicting ideologies. One is the practice of labeling evil,” before adding additional information. She continued on in this vein until her statement was complete. Participant 8 also used a reviewing process, but he used it in conjunction with another activity: text reduction. Text reduction is addressed in Section 6.5.

6.4.5 Categorizing

Out of the 1,992 passages of text found in the think-aloud portions of the twelve participants’ transcripts, 43 passages, or 2.2% of text passages, involved categorizing. Categorization is the process through which ideas and objects are recognized and understood by their placement in either formal categories or ad hoc personal groupings. The participants did not often use formal library classes; this is most likely due to their lack of familiarity with classification or controlled vocabulary systems at the time of the study. Categorization can be used as an early step in determining aboutness and as a way to reduce a mass of text to a simple word or phrase. It can be used to summarize content quickly and provide context for the item; it relates the item to others that would also belong in the same category. Categorization was a form of shorthand. The participants primarily used categorizing to help determine and describe the macro-level aboutness, but could also use it with chapter-level and micro-level aboutness. This process was

explicitly used by ten of the twelve participants; they most often used categories based on disciplines, topic areas, points of view, type, academic level, and form/genre.

The shorthand approach to categorizing was prevalent among most of the participants who used this process. Often it was used in conjunction with broad subject groupings. Participant 3 described *We've Got Issues* as “an anti-current establishment book” and as “beach reading.” Later she called it a “political book.” Participant 3, however, used other types of categories as well. To her, *The Death of Satan* is “an academic book” that had some psychology in it. She stated that she identifies books as either “popular reading” or “academic reading.” Participant 4 used very broad, traditional, discipline-based categories to describe the books. She stated that Book One is “a book about politics,” and Book Three “is a sort of a history.” Her categories were straightforward and allowed her to place the works in slots to help her understand and describe the aboutness. Participant 6 used categories in the same way. She stated that *We've Got Issues* is about politics and *The Crazy Makers* is about nutrition, but “it seems to be from a political perspective, it is not a pure nutrition book.” Participant 7 categorized *We've Got Issues* as “a self-help book,” until she opened up the cover and began examining the content more closely. Then she realized, “it is a satire or some sort of commentary by a comedian on American society.” She continued to describe the books in this shorthand, using categories like, food, nutrition, novels, mysteries, and sociology. Participant 8 used categories often. *We've Got Issues* was “political issues, political commentary” and *The Death of Satan* was “religion or philosophy, something in there.” He noted:

There is a lot of history of the doctrine of the devil, the theology behind it. Would you call it theology? Demonology? It is the history of the philosophies concerning the devil or Satan.

When he first described the aboutness of Book Three, he used a single string of categories to provide the aboutness statement. “*The Death of Satan* is about philosophy, religion, American history, evil, Satan, sin, and sociology.” While most participants used only broad discipline-based categories to describe the works, Participant 3 used some personal ad hoc categories. She categorized *The Crazy Makers* as a book her husband would read. She did not provide a specific category, but lumped it in with books like “*How Disney is Destroying America* and *How HMOs are Ruining Your Health*.”

Participant 12 stated that it was very difficult to avoid categorizing the items when he first saw them.

With bookstore fare, like *We’ve Got Issues* and *The Crazy Makers*, it is hard not to have those tendrils go out immediately to “Political Science,” “Sociology,” or “Nutrition” that you would see in the bookstore. By default of not being in the LIS profession very long, I am most familiar with that sort of categorization. There is genre and alphabetization, but the most interaction I have is with the bookstore. I am not going to say that I would know the sub-genres of Political Science to put *We’ve Got Issues* in Gen X activism in Political Science. You catch buzzwords from pop culture, because the book is in the context of the pop culture. Trying to resist that categorization, as it is already forming in the back of your mind as a concrete, it is a struggle against that to allow for the interplay to take place before [your conception] is solidified. For me, it is kind of analogous to the way that a particular text is placed into a larger context; a culture that is predicated on these genre categories. In the process of summarization, you have equal parts of mirroring of the text and of the allusions to those categories bubbling up in spots.

He recognized his natural impulse to put these books into classes with other like items, but also wanted to resist that temptation. He did not want his preconceived notions of those classes to be his entire understanding of the items. He saw this as a struggle between trying to efficiently develop an understanding of the items and trying to keep an open mind and not label the items before a complete and full reflection on their content.

6.4.6 Making Associations

The final sense-making process is making associations; a process that creates connections between the content of items and memories of familiar documents, personal experiences, or subject knowledge. Out of the 1,992 passages of text found in the think-aloud portions of the twelve participants' transcripts, 61 passages, or 3.1% of text passages, involved comparisons or making associations. Each of the twelve participants made associations, either to other texts they felt were similar to the items under investigation, or to their own lives. This process is related to other sense-making activities such as finding context, categorizing, and interpreting, which are all used to understand documents and to identify and label their aboutness. Making associations or connections to other knowledge, books, experiences, and/or documents appears to be an innate and possibly involuntary process. One primary cognitive skill of humans is the ability to recognize patterns. Humans look for similarities among objects; this behavior is related to categorization, another innate cognitive process. The participants in this study all made associations during their aboutness determination processes. They found similarities between the three books they examined and others read in the past, events in their lives, thoughts they have had, etc.

Of the three items that the participants examined, *The Crazy Makers* was most often compared to outside works. Based on the cover, two participants made an association to the documentary *Super Size Me* by Morgan Spurlock, and two others made an association to the book *Fast Food Nation* by Eric Schlosser. Neither covered the same territory as *The Crazy Maker*. While these associations were unfruitful, it did not prevent the participants from continuing this activity. Participant 1 made associations between the items she was analyzing and her life experiences and background knowledge. When Bagby describes Generation X as not

being completely apolitical, Participant 1 stated, “I can testify to that.” Based on her own experience working with young adults, she felt she had an understanding of the author’s statement. Throughout her examinations, she mentioned incidents from her own life related to topics at hand. She related pieces of the content to her grandmother, her grandfather, and other family members, as well as to her personal experiences studying nutrition in college. When asked if she made associations to other items of a like nature, she replied:

Oh sure. Absolutely. Well, not necessarily books, but other documents or whatever: information sources of another nature. Well, I was like, with the first book, I was real involved 8-10 years ago with teens. And so, the group of teens I am involved in is very active politically. So, consequently, I was just constantly thinking about when I hauled half a dozen girls down to DC for a pro-choice march. How the process of them learning how to be politically active and how to be aware of things. It was more experiential than books, but that was only because of the subject matter.

Participant 2 did not mention any associations that she made while examining the three items, but when asked in the interview if she compared these works to other items or other ideas, she replied:

Definitely with *We’ve Got Issues*, I was able to bring in ... I am pretty aware of what’s happening in the news. So, I was able to bring in my awareness into it. Okay, I know what they’re talking about here. With *The Crazy Makers*, I related it to *The Okinawa Program*, which basically is saying the same thing. With *The Death of Satan*, I had nothing. Yes, definitely it did, because most food and diet books are very similar. They want to show you statistical evidence that yes this diet works. It is supported. That definitely made it easier.

Participant 3 made associations to several other works. She used categories to relate the three items she was examining to other items with which she was familiar. In addition, she made intertextual association, often relating some aspect of *The Crazy Makers* to *We’ve Got Issues*, or of *The Death of Satan* to the first two items. Since they examined all three items in relatively rapid succession, it is not surprising that the participants made associations among the three items that might otherwise never arise. Participant 3, for example, considered *The Death of Satan*

to be a scholarly work, primarily in its relation to the other two works, which were of a more popular culture orientation. She did not mention the scholarly nature of Book Three without comparing it to the other two books.

Participant 8, when asked about making associations stated that he did make some associations to other works; those associations, however, did not necessarily help him gain a better understanding of aboutness. Participant 12 felt differently. He stated that the associations that he made to other works allowed him to reduce the text into more manageable segments. By making associations, he used the shorthand of categories to distill the text down to its essence and put it in a meaningful context.

6.5 TEXT REDUCTION PROCESSES

All twelve participants used some form of text reduction in their aboutness determination processes. Out of the 1,992 passages of text found in the think-aloud portions of the twelve participants' transcripts, 193 passages, or 9.7% of text passages, involved text reduction. Text reduction involves taking a large piece of text and summarizing its contents, or the conscious or unconscious process of condensing a large number of specific statements into a briefer, more general statement (or statements) that explicitly or implicitly incorporates the content of the specific statements. In other words, it involves creating a broad macro-proposition that incorporates a series of micro-propositions. While the individual details may be lost (or subsumed under the broader statement), the macro-propositions describe the general ideas

common to those micro-statements. Beghtol and others describe this process in their discussions of text comprehension.²⁹⁴

Text reduction comprises three different activities in the aboutness determination process: summarizing, note taking, and extracting. In summarizing, the focus is on creating a synopsis of the content from the participant's understanding. Summarization may occur on the macro-level, chapter-level, or the micro-level of aboutness. It is the condensation of complex ideas into more manageable units of text. It may be manifested in the form of an abstract or an aboutness statement, written at the end of the process, or it may be a précis of a smaller unit of the text such as a chapter or a section. The second process, note taking, is a much simpler version of this process. Its focus is on summarizing chapter-level or micro-level aboutness in the form of a single note. A word or two, or perhaps a sentence, are used to summarize the ideas. Again, it is a reduction of a more complex understanding into a word, category, or phrase that represents in an abbreviated form the more complex idea. The third type of text reduction is extraction, the process of excavating a word or a few words directly from the text to represent a much larger section of the text. It is similar to note taking, except that it takes the words directly from the text itself. This process is primarily used with smaller units of text such as extracting key words from section headings or tables of contents to represent a broader notion of aboutness. Four participants took notes throughout their examinations. The other eight participants did not take extensive notes, but instead remarked on key concepts when they encountered information they felt was important. All twelve participants wrote aboutness statements. This is unsurprising, of course, since it was incorporated into the research design. Eleven of the twelve participants used extraction in their processes.

²⁹⁴ Beghtol, "Bibliographic Classification Theory and Text Linguistics," 89-90.

Participant 1 used text reduction throughout her examinations in note taking, writing her aboutness statements, and extraction. Her first use of this process was when she attempted to condense her understanding of the first chapter of *We've Got Issues* into a single phrase. She read the chapter title and abstract aloud, then wrote the note: "1 – political figures." As she encountered more information, she added more words to the note until she reached an adequate description of the aboutness of the chapter. She later summarized her understanding of the entire book in her macro-level aboutness statement. She did this by reducing the text of her notes into a macro-level proposition that encompassed her understanding of the individual chapters.

This book is about one individual's opinion on Generation X's political and societal state. It examines over a dozen issues that young adults should be conscious of and proposes some remedial actions for those young adults reading the book. What struck me as the most important issue is that young adults must be informed and vote as soon as they are able.

Participant 1 also used extraction throughout her aboutness determination process in conjunction with her note taking. At times, her notes were lifted directly from the text. For example, upon encountering the content of the second chapter of *We've Got Issues*, she made the note "National Debt;" it was taken directly from the text. These examples are representative of the uses of text reduction by all of the participants in the study.

Of all the participants, Participant 8 was most explicit in the use of text reduction. His note taking began during his examination of the items and continued throughout his linear Puzzle Building process. At the end of each book, having skimmed all of the chapters and taken notes on many of them, he wrote his aboutness statement by taking his notes, grouping them, and reducing them into a macro-proposition. For *We've Got Issues*, he stated:

What is it about? It is about political issues especially as they pertain to 2000 presidential election. It includes information on the current state of America, American politics, some government programs (like Social Security, Medicare),

taxes, welfare, youth violence, environmentalism, things like that. *We've Got Issues* is about political issues.

He, then, reduced his notes as shown in Figure 6.2. The individual notes he had taken were grouped into broader classes, which were then sorted into an even broader grouping; in essence, he reduced his micro-propositions into one larger, all-encompassing macro-proposition. The categorization process played a large role in his text reduction activities. He used categories to describe not only the macro-level classes, but also to describe the micro-propositions.

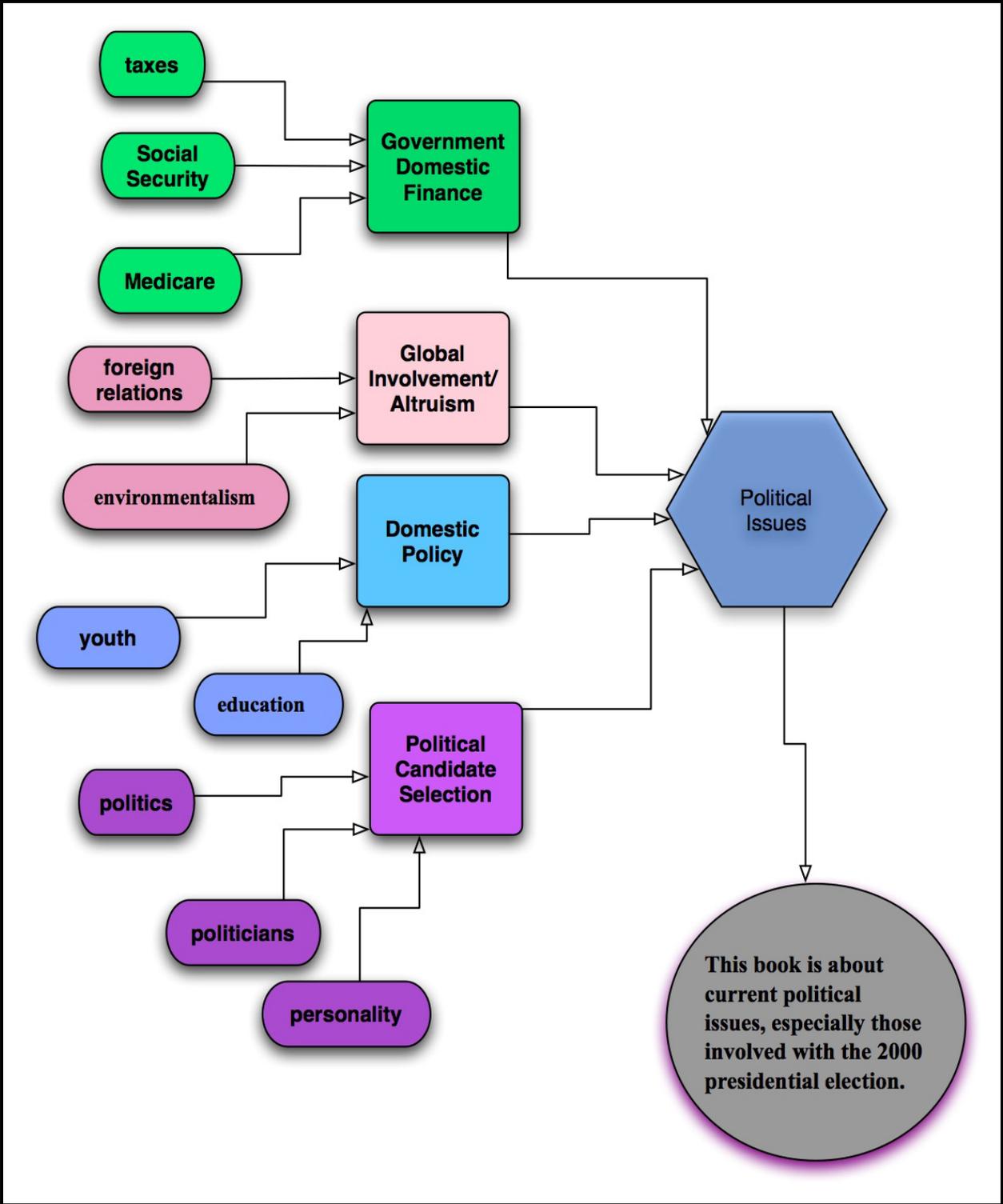


Figure 6.2: Participant 8’s Text Reduction Process

After his initial text reduction, Participant 8 added another concept into the aboutness mix: “It is concerned mostly with the 2000 election.” He then stated, “That pretty much covers it, as far as I can tell.” This was appended to his macro-proposition to create his final aboutness statement: “This book is about current political issues, especially those involved with the 2000 presidential election.” No other participant demonstrated the use of the text reduction or summarization processes more clearly than Participant 8. When asked about his process, he described text reduction as major activity. “I was drawing clues from all those [different features of the books] looking for the components of the single idea or the larger idea that the book was about.” He stated:

I think that taking a book, and boiling it down to one statement is not going to cover everything it is about or to comprehensively state what it is about. I think that is the problem in this process. I think by skimming through the content, I have memories of specific elements about each of the books. Those are all synthesized into a whole. That isn’t expressed in the statement. The statements consist more of general statements or subject areas that each book concerns, but that doesn’t represent my entire understanding of the book. I think my statement for *The Death of Satan* does not say anything about witchcraft or witches, but there is a significant section in the book on the Salem witch trials and things like that.... The things to include are the general information that is going to point the reader towards what it is about. If they want to know more, then they can read the book. To make an aboutness statement that tells you everything about the book, then we don’t need books any more, just people to write aboutness statements. So, the statement needs to be specific enough that the reader can tell what it’s about, but not tell the reader what all of the material is. So, you put in the stuff like the more general subject areas and leave out the details I guess.²⁹⁵

Participant 10 also talked about reducing the text when describing her process. She stated that she comes to the meaning of a text passage by stripping away extraneous detail to reveal the main focus of the item.

My father actually told me this when I was in high school; he talked about the process of reading. An author writes a book and starts out with just an idea, and then he builds and expands and multiplies that idea into a book. A reader does the opposite; you digest it all, break it down to that original concept—what is this

²⁹⁵ Some of this passage was used in the discussion of what participants ignore.

book about.... It was definitely a process of decreasing it [the text]. It was definitely taking several pages worth of information and just trying to figure out what the main stuff is; just taking what is most important out of it. I think, you could say physically there are lots of words, and you are just trying to get a couple of words out of it. Also, there are lots of ideas, ranges of topics like the first book *We've Got Issues*, where each chapter was a different issue. I was trying to figure out what the overall issue was or the overall point. In the second book, *The Crazy Makers*, lots of information about the specifics of diet and what it is doing to the brain, but I was trying to figure out what your main position. I think it was definitely reducing all of it. Especially, the last book, *The Death of Satan*; he made so many references to so many different things. Almost never stated his position directly. You are trying to figure out what is your position, what is your point.

Participant 12 agreed that text reduction was a big part of the process. In response to being asked about his examinations, he stated, "I think I tried to reduce the text, rather than let it expand around me. I tried to reduce it and sum it up by looking for key themes and phrases that apply to what was my given body of knowledge here; things I [have] already experienced and come in contact with." He felt that in order to reduce the text, he had to let go of some details.

You leave out as many details as possible. You look through the book for those details: those names, those place names, those people names. You try to group them together as you go through. You group them together under categories. I thought, the book may have been, just reading Kennedy and Clinton in the first chapter of *We've Got Issues*, I thought the book may have been more historical or linking current events to a more historical narrative. Then, going through, seeing all the stats and buzzwords of contemporary political atmosphere, revised those connections and put them off. Then put the Kennedy and Clinton off as a special category, rather than trying to connect it to a larger whole. What you are trying to do is to pick out those key vignettes or anecdotes, names, places, and dates; and you are constantly reorganizing them and coming up with categories under which they fall. But I try to keep those categories at a maximum of six; I am working on a frequency that will only allow roughly six breakdowns.²⁹⁶

Participant 12 recognized that in reducing the text, he needed to categorize the details to keep track of the concepts and organize the information he had collected. He felt that text reduction was tied to the process of categorization, another of the sense-making processes.

²⁹⁶ Some of this passage was used in the discussion of what participants ignore.

6.6 STOPPING

Once an understanding of the aboutness has been achieved, the final operation in the aboutness determination process is stopping. Five approaches to stopping the process were observed, including: giving up, stopping at the end of the book, stopping when no new information appears, stopping when examination of the item's important features was complete, and stopping with an understanding of an item's aboutness. These were not mutually exclusive.

Giving up was an approach used by three participants. Participant 4 gave up on her examination of *The Death of Satan*. "I don't know where to go.... I am not sure. I don't know what to do." Rather than continuing beyond the book's introduction, she decided to stop. "It was giving up, but I had an idea in my head of what it was about from the introduction and I wasn't finding anything else either to contradict or support it." Participant 9 also gave up on Book Three: "Even if I had another hour with *The Death of Satan*, I wouldn't necessarily have a better grip on it than I do right now. So, I stopped." Participant 11 also had trouble with Book Three; her attempts to figure out "what the author is advocating" proved to be difficult, so she decided to not include this in her aboutness statement. She quit, stating, "I am done."

Four participants stopped at the end of the book. The four participants who used a strictly linear approach to examining the items were the ones who used this approach; their overall examinations entailed starting in the beginning and marching through the item until they reached the end, so it is unsurprising that they stopped there. When Participant 8 was asked why he stopped the examination, he stated:

It was mostly because I got to the end of the book and felt that I had absorbed most of the main ideas from the book into something cohesive. With *We've Got Issues*, I had a lot of little cohesive ideas, which I ended up having to bring together into something larger. I went through page-by-page of each book; so I

was fairly confident I hadn't missed anything. If I had just flipped through, I think I might have gone back for a more thorough look or to do some spot-checking on it to make sure I was making a reliable statement. Having gone straight through, I assumed that I had enough of the gist to make a good statement.²⁹⁷

Reaching the end of the book was not the complete reason, but it was one factor. He also felt comfortable enough with his understanding of the aboutness to quit. Participant 10 stated, "It was that I got to the end of the book, and I felt content with what I had written down on paper. With *The Crazy Makers* and *We've Got Issues*, once straight through, I felt that was enough." When she was asked if she could have stopped earlier, she stated:

Probably, but I feel like the end is really where the author is going to make their final point. So, I wouldn't have wanted to have stopped, even if I felt like that I had enough to write a paragraph. I would have felt that if I hadn't read the conclusion, then their final thoughts would have been lost.

Participants 1 and 2 also went straight through until the end of the book. They, too, mentioned that they were comfortable with their understanding of the aboutness at that point.

Other participants stated that they stopped when they noticed that nothing new was appearing. Participant 3 stated, "Once I had a fairly complex pearl, that was enough. When there was no additional information, when I stopped finding anything new that would add to that, or any new twists, [I would stop]." Participant 4 said that she stopped when her understanding of the aboutness was no longer evolving. Participant 12 stated he stopped the examination:

When I started to get a lot of the same hits; when I started to get a lot of repetition in the things I was finding—things that were doubly, triply reinforcing the points in the process that I had pretty much already accepted as ossified.

Participant 7 stated that she stopped once she had looked at everything she needed to look at in order to determine aboutness.

I would stop and write my aboutness statement when I felt like I had already looked at everything I wanted to look at: my table of contents, my beginnings and

²⁹⁷ This quote was used earlier to describe this participant's choice of using a linear examination strategy.

endings of books, and introductions and conclusion. I think it was I looked at everything I am going to look at.

She also mentioned the most frequently mentioned reason for stopping the process, when she stated: “If I wanted more understanding, I would have dug more at the text. I definitely felt I had a general understanding and I can say what this book is about and I have looked at everything I am going to look at.” The most frequently-mentioned reason for stopping was having achieved an understanding of the aboutness. Eleven of the twelve participants mentioned this as a factor in knowing when to stop. Participant 2 stated:

I was kind of just exploring. My experience with checking books for aboutness is really like going to Borders and checking. Any experience that I have had browsing through a book to see what it’s about is asking would I like to buy this book. I don’t necessarily know how to do it, but I really just had to check it out to see. I know how I check documents for aboutness, so I applied that to the whole book. As soon as I am comfortable with the overall sense of what this is about, I will stop.

When the participants had a sense of the overall, macro-level aboutness, they stopped. Participant 11 summed up this approach well when she reported, “I felt I had a good grasp of what the book was about—a good enough grasp that I could write a paragraph about the book.” When she understood enough of the aboutness to complete the task at hand, she stopped.

6.7 EXAMPLES OF PROCESSES AND OPERATIONS

Examples of most of the major processes and operations can be seen in all of the transcripts of the twelve participants. In this section, several examples are provided to illustrate how these processes are used. Since all of these processes are interrelated, simple quotations cannot suffice

to illustrate their role, importance, and prevalence. In the passages that follow, important processes and features will be identified in square brackets after the participants' statements.

Participant 1's linear, chapter-based approach to determining aboutness began with an assumption about the chapter's content based on information from the chapter's title, abstract, or opening quote; she then moved to reinforcing that assumption when she encountered more information that supported her ideas. Her process resembled a "hypothesis—support—support" structure. The following excerpt from her transcript will provide an understanding of how the process and operations fit together.

"Politicians, Paramours, and Peccadilloes." **[Input]** "Forget drugs. This generation is 'just saying no' to politics. Lies, scandal, bickering, and partisanship has [sic] turned us off. How can younger Americans take Washington seriously? And what will happen to our democracy—and our issues—if we don't?" **[Input]**

Chapter 1 – political figures **[Note-taking, Assumption, Summarization, and Extraction]**

"Stereotypes." Yeah, yeah, yeah, we know about that. **[Input and Interpreting]**
"Dirty Rotten Scoundrels." **[Input and Reinforcing]** Yeah, this is confirming everything I feel. **[Reinforcing]**

Forget the picture, it's not the text. "WEB OF DECEIT"; it jumps out at everybody. **[Input and Reinforcing]**

"Who's the Enemy Here?" **[Input and Reinforcing]** Reading this part here that jumped out at me, because I am real interested in young adults. It says, "The good news is that despite our current lack of interest, Generation X is not totally devoid of political potential." I can testify to that. **[Input, Making Associations, and Reinforcing]**

"Only 1 percent of 17-24 years olds identified themselves as apolitical. No Partying Down." **[Input and Reinforcing]** Who cares about somebody's nuts in their cookies? **[Making Associations]**

"Impotence in Washington—Political Impotence, That Is." **[Input and Reinforcing]** Kind of skimming through—"So Goes Around." **[Input and Reinforcing]**

Political figures--opinion--trust--the public. **[Assumption, Refining, Note Taking, Interpreting, and Summarization] ...**

“But Generation X’s rationale is to ignore the mess. Everything that’s happened in Washington in the last 14 months confirmed every young person’s suspicions about government” **[Input and Reinforcing]** blah, blah, I don’t need to read that. **[Ignoring/Skipping]**

“If I don’t vote, will they all go away? Unfortunately they—the politicians—and our problems won’t.” **[Input and Reinforcing]** So, the first one’s about voting. **[Note-taking, Assumption, Refining, Summarization, and Extraction]**

In this excerpt, the participant’s first encounter with the item’s chapter-level aboutness was from reading the chapter title and the abstract printed on the chapter’s separate title page. She then, based on her notes, made the assumption that the first chapter dealt with “political figures.” While this was not an unexpected or irrational leap from the title and abstract to her assumption of chapter-level aboutness (“political figures”), it was still an assumption. Her assumption was then reinforced by a series of input and reinforcement steps as she moved further into the chapter. She noted section headings referring in sardonic terms to her original aboutness assumption, such as “Dirty Rotten Scoundrels” and “Web of Deceit,” as well as references to political impotence, political potential, and Generation X’s lack of interest in politics. While looking at the chapter content, she made several statements that indicated that her ideas were being supported and that she felt that she was on the right track, such as, “Yeah, yeah, yeah, we know about that” and “This is confirming everything I feel.” Once she reached the end of the chapter, she had not only reinforced her original notion of the chapter-level aboutness, but was able to refine it to increase its detail and sharpen its focus. Her examination of the chapter led to the development of the statement, “Political figures—opinion—trust—the public—vote,” which dealt with issues of public opinion, issues regarding the public’s inability to trust politicians, and

with encouraging the public to vote. It is a fuller, more refined understanding of the chapter's aboutness.

The same set of processes was also used in other ways. While Participant 1 used them to develop an understanding of chapter-level aboutness, Participant 4 demonstrated how they could be used to determine other aspects of the text, as well as the aboutness. She used the same process to determine the aboutness and the intended audience for *We've Got Issues*.

So far, I am seeing that they are trying to bring politics to a new generation. **[Assumption and Interpreting]** The technologies in the world are different in the last thirty years. When was this published? Oh, 2000. **[Input and Refine]**

“One vote, what is that? Like 1 in a 100 million people ... and know which side of their chest to cover for the Pledge of Allegiance.” **[Input and Reinforcing]** It is going on and on about the younger generation's lack of initiative to go out and vote and care about what's going on in the country. **[Input, Interpreting, and Reinforcing]**

I am going to just page through to find the different chapters—I see they have a blurb on the front—to see if that tells me anything.... **[Input and Reinforcing]** “How can younger Americans take Washington seriously?” **[Input and Reinforcing]** ... “Somebody is stealing from the young and giving to the old.” **[Input and Reinforcing]** ...

Another chapter that deals with young people, and the issue of saving for their retirement... **[Input, Assumption, Interpreting, Summarization, and Reinforcing]** “Generation X is accused of knowing more about *The Brady Bunch* than we do about our presidents. Is it true?” **[Input and Reinforcing]**

Upon opening the book, she immediately noted that the book was attempting to “bring politics to a new generation,” a fairly accurate macro-level aboutness assumption. She went on to use other details to reinforce her ideas of aboutness and audience. Her statement that, “it goes on and on about the younger generation's lack of initiative to go out and vote,” helped to reinforce her assumption. She later spotted another chapter dealing with young people and their involvement in politics as well as an appendix, which mentions Generation X frequently. These both helped to reinforce her assumptions. Surprisingly, she did not include information about the intended

audience in her aboutness statements, although she understood the audience and discussed it during the interview. She was asked, “Did you consider the audience?” She replied, “Only in *We’ve Got Issues* in the context of the election, it was for younger voters. That came up. She was targeting that audience.” The audience was obviously a part of her understanding of the aboutness, but she chose not to include it in her aboutness statement, despite the reinforcement.

The following segment is an extended passage from Participant 7’s transcript, describing her examination of *The Crazy Makers*. It demonstrates how the Input, Assumption-making, Sense-making, and R³ processes were used to develop her understanding of the book’s aboutness.

I am going through the Acknowledgments to see if she has thanked any one in particular. She thanks her children, her husband, and a teacher. **[Finding Context]** “Thank you Nature’s Life for providing the breakfast drink and flax oil for the project. I appreciate your support, and the kids benefited from this great nutrition.” **[Input]**

So, she’s going to talk about nutrition in the book. **[Assumption, Categorizing, Refining, and Interpreting]**

She’s thanking some doctors. “Your knowledge of nutrition and medicine was invaluable.” **[Input and Reinforcing]** Thanked some other people. Then, she thanks God, “who designed the most wonderful food, perfectly suited to nourishing our brains and our spirits.” **[Input and Reinforcing]**

From that it seems like she’s going to talk about eating a lot more natural food, not the processed foods; maybe raw foods—things that are not necessarily manufactured, but that the earth produces. **[Assumption, Summarization, Refining, and Interpreting]**

Then she’s talking about mental troubles. **[Input and Extraction]** She says, “To the mental health practitioners and educators, frightened at the increase in mental disorders, searching in the wrong places for the answers.” **[Input and Reinforcing]**

It sounds like she’s going to talk about the effects of what she considers poor nutrition on mental health. **[Assumption, Summarization, Refining, and Interpreting]** Most of these problems are going to result from poor nutrition. **[Refining]**

Table of contents: Our Food and Suffering, Building the Infant Brain, Nourishing a Baby's Brain, Feeding Your Child's Brain, Feeding the Adolescent Brain... **[Input and Reinforcing]**

It sounds like she is going to focus a lot on kids and a lot on how what you feed them affects their brain, mental issues, and I would also deduce that she's going to talk about process for smarter children, having faster reflexes, synapses. **[Assumption and Refining]**

Then, at the end, she has a recipe and menu primer. **[Input and Reinforcing]**

So, this is definitely about food and definitely about nutrition and definitely about children and mental issues. **[Assumption, Summarization, Refining, and Interpreting]**

I am going to read the Introduction. "You're making me crazy!" **[Input]** Then she defines crazy. **[Reinforcing]** "It may be unlikely that a person could damage our brains, but what about our favorite instant and fast-food toys? What about infant formulas and baby foods?" **[Input and Reinforcing]** This is pretty much the same type of stuff. **[Reinforcing]** She then references Rachel Carson's Silent Spring. **[Input]**

She's clearly going to come down really hard on the food industry. **[Assumption]** "What about food industries that wantonly destroy our bodies and our brains, all in the name of profit? We call them Food Manufacturing Companies, a nomenclature that is chilling. Are they manufacturing food or food artifacts that look, taste, and smell like the real thing?" **[Input and Reinforcing]** She seems to go on in this vein for a while. **[Reinforcing]**

She talks generally about food. **[Input]** Then she says, "Instead of being eaten when we are physically hungry, food is now consumed to satisfy artificial cravings generated by a brain that isn't working right." **[Input and Reinforcing]** She's going to look at the industry and that seems to be the last sentence is "Our food is, quite literally, driving us crazy." **[Input and Reinforcing]**

I have a pretty good idea of what this book is about, but I am still going to go ahead and just flip through some of the chapters. **[Reinforcing]**

Right now, at this point, I think this book is about the author's opinions of how the food industry causes a lot of the health problems and mental issues in America. The author believes that children aren't getting the proper nutrition and that processed food is part of the problem. **[Assumption, Summarization, Reviewing, Refining, and Interpreting]** I will try to be more concise in my aboutness statement. **[Refining]**

This extended example shows how the participant used multiple processes in combination to achieve her ultimate goal of determining the item's aboutness. Her process continued on from this point until she had refined her understanding into a final aboutness statement. Her assumption of the aboutness of *The Crazy Makers* was well formed and appropriate, even in this early stage of the process. Her preliminary assumption was as precise and accurate as several of the other participants' final, polished aboutness statements. Throughout her examination of the preliminaries and the beginning of the introduction, data input occurred, and she made her first assumption almost immediately. The category—nutrition—was broad but appropriate. From that point, as she encountered additional information, her assumption was reinforced and refined. She used supporting processes, such as the text reduction processes and interpreting, to help her form and shape her understanding and her expression of the item's aboutness. The skeleton for her process is mapped in Figure 6.3, providing an illustration of the repetitive nature of the process. This repetition appears to be an important part of determining aboutness.

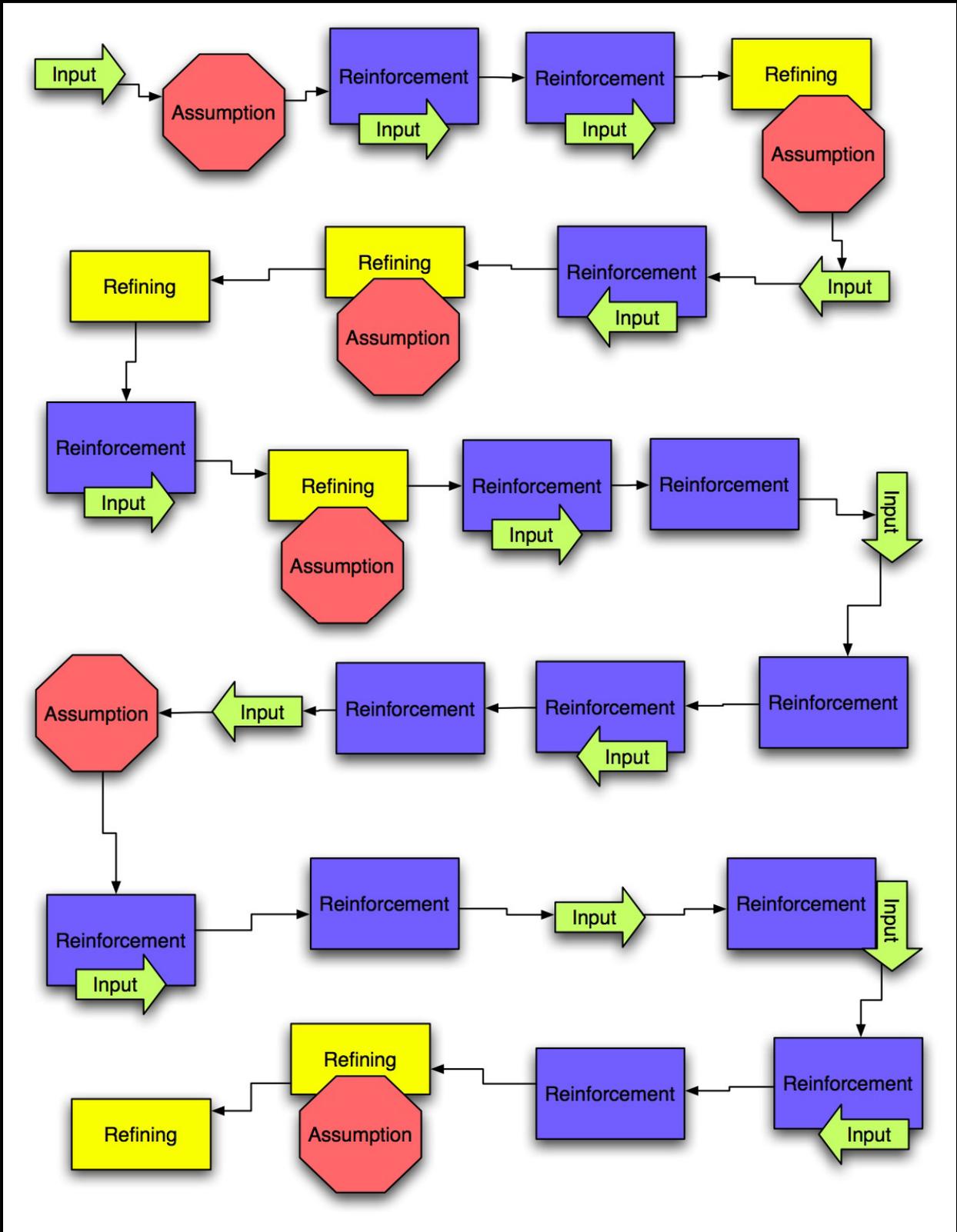


Figure 6.3: Mapping Participant 7's Use of the Input, Assumption-Making, and the R³ Processes

In the next passage, Participant 10 demonstrates her use of the R³ processes in determining chapter-level aboutness. It is also an illustration of how the final description of the chapter-level aboutness (in the form of a note) can be reduced to a single word from a much longer initial assumption.

Chapter 3: Trick or Treat, the Tooth Fairy and a Tea Party **[Input]**. This is about how our government spends our money. **[Assumption and Interpreting]** The first paragraph, of chapter three, it looks like it is using a Trick or Treat Halloween analogy, saying that our politicians are giving away candy. The candy is actually our money. **[Making Associations, Interpreting, Refining, Reinforcing]** I still haven't gotten a feel for whether this is directed toward one political party or the other. It seems just critical in general at this moment. **[Finding Context]** I am looking at the section called The Federal Budget 101. **[Input and Reinforcing]** I am realizing there is this whole school thing emerging, where there is a report card and now a class 101. **[Making Associations, Interpreting, and Assumption]** The structure now is Fast Facts outlining different things. She runs through a couple of facts. **[Input and Reinforcing]** I am reading a section called Trading Places, which refers to that movie with Eddie Murphy and Dan Aykroyd, again, all the pop culture references. **[Input, Making Associations, Finding Context, and Reinforcing]** Then eventually it leads into talking about our GDP and how much of it is being spent on foreign liabilities. **[Input and Reinforcing]** I will quickly look at the last paragraph. **[Input]** So, that chapter was looking at how America spends its money, specifically how our politicians spend money. **[Assumption, Interpreting, Reviewing, and Summarization]** So, I guess I will call that just the economy. **[Refine, Interpreting, and Summarization]** Chapter 3: Economy **[Note-taking, Summarization, and Categorizing]**

Participant 10 began her examination with the input process and moved quickly into her first assumption of chapter-level aboutness. Her examination of this chapter held few surprises, but it does illustrate how Participant 10 reduced her final statement of chapter-level aboutness to a single note, which was far less detailed than her opening statement. Instead of a more refined, complex statement, she opted for simplification by using a category to represent the chapter's aboutness. While she refined and expanded her overall understanding of the chapter's aboutness, she reduced the amount of text needed to express (to herself) her understanding of that chapter's content.

CHAPTER 7.0 ABOUTNESS DETERMINATION MODELS

In this study, transcripts were analyzed to find patterns in the participants' approaches to determining aboutness. The data supported the identification of two primary subject determination models. This chapter describes the aboutness determination models developed in this research, and provides examples to illustrate how participants used the primary components of aboutness determination. The two primary subject determination models, Puzzle Building and Pearl Growing, and the supporting processes (described in previous chapters) can be used to determine the aboutness at various levels of granularity, including the aboutness of an entire work (macro-aboutness), a particular chapter (chapter-level aboutness), or even a single section or paragraph (micro-aboutness).

Each participant in the study employed one or both of the models in their aboutness determination processes. The participants showed considerable variation in their use of the models and the supporting processes; thus, no single model of subject determination can sufficiently represent the activities of all of the participants. Participants 1, 2, and 8 were the primary puzzle builders in the study. They used Puzzle Building to analyze all three items. Participant 10 also used Puzzle Building for two of the items, *We've Got Issues* and *The Death of Satan*. Participants 7 and 9 used it for *The Death of Satan* only. Some of these participants, however, also used Pearl Growing in various forms. For example, Participant 1 used Pearl

Growing to determine chapter-level aboutness and Participant 8 used Pearl Growing to develop his puzzle frames. The processes are not, therefore, mutually exclusive.

Participants 3, 4, 5, 6, 11, and 12 were the primary pearl growers in the study. They used Pearl Growing to analyze all three items. Participants 7 and 9 used Pearl Growing for the first two items. Participant 10 used Pearl Growing when she examined *The Crazy Makers*. Unlike the puzzle builders, the pearl growers did not demonstrate the use of Puzzle Building as a supporting process, alongside their major Pearl Growing process. They sometimes used chapters to find data to reinforce already established aboutness assumptions, but it was not Puzzle Building, since it did not involve the same techniques of developing an understanding of aboutness. Figure 7.1 is an illustration of the two aboutness determination models.

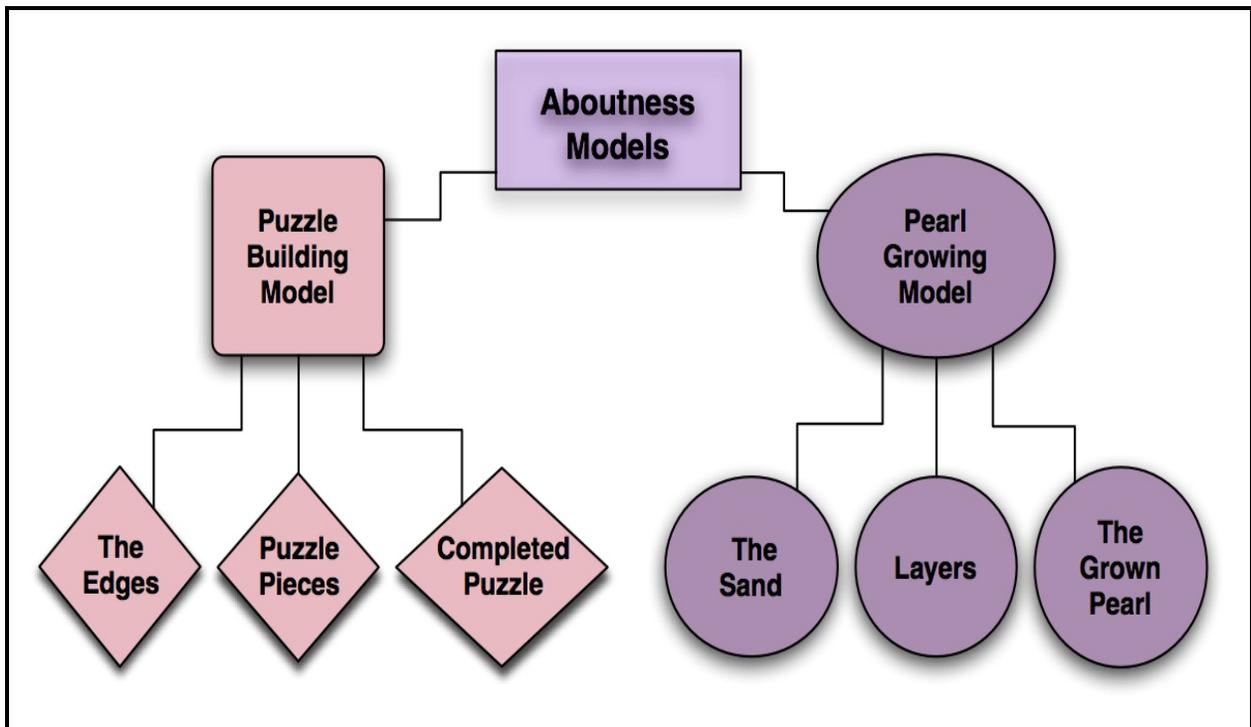


Figure 7.1: Aboutness Determination Models

7.1 THE PUZZLE BUILDING MODEL

The major difference between the two models is in their primary approaches to gathering and processing the aboutness data. Puzzle Building is a more atomistic process, focused on identifying individual details from the item's content and treating them as discrete pieces of the aboutness puzzle. These discrete pieces are often summaries of the aboutness of individual chapters, but at times, they might also represent the audience or an understanding of a certain chunk of text, an image, or a paragraph. Puzzle Building can be used to determine macro-level, micro-level, and/or chapter-level aboutness. Within a single analysis, one may or may not see puzzle building at all three levels. The process is one of collecting discrete information units and holding them until the participant is ready to complete his or her aboutness puzzle, and then attempting to use these discrete pieces of the puzzle to construct a complete and cohesive "picture" of the item's aboutness. Puzzle construction may occur at various points during the item examination. Participant 1, for example, took her pieces from Part I of *The Death of Satan* and put them together to understand the first half of the item. This completed puzzle half could then be added on to as more pieces were found, or the participant could wait until the other half of the book's pieces were collected and then put together the entire aboutness puzzle. The Puzzle Building aboutness determination model can best be summarized by the phrase "the whole is the sum of its parts."

The participants using Puzzle Building tended to have fewer stated macro-level aboutness assumptions than those participants using Pearl Growing, but there were exceptions. Of the four participants who used Puzzle Building with at least two items, three placed a greater emphasis on chapter-level aboutness and micro-level aboutness. This is illustrated in Table 7.1. With the

exception of Participant 8, the puzzle builders did not focus as much on the macro-level or other types of aboutness. When the puzzle-building participants did make macro-level aboutness assumptions, those assumptions were often made as the puzzle builders were developing their initial framework, the border of their aboutness puzzle.

Table 7.1: Puzzle Builders’ Preference for Chapter-level and Micro-level Aboutness

<i>Puzzle Builders</i>	<i>Total number of assumptions</i>	<i>Percentage of assumptions focused on Chapter-level or Micro-level aboutness</i>
Participant 1	34	82%
Participant 2	29	72%
Participant 8	44	43%
Participant 10	64	69%

There are three components in the puzzle building process. The first is the development of a framework for the aboutness; it is equivalent to the first stage of completing a jigsaw puzzle, i.e., gathering the edge pieces and putting them together to build the frame. This stage represents an attempt to gauge the dimensions and scope of the aboutness for the item. The resulting frame may be a fairly sophisticated statement of the item’s aboutness, or it may be a rudimentary understanding of one or two factors such as “this is an academic book,” or “this is a book about physics,” or “this is a novel.” Participant 8 stated that he approached the process by developing an initial framework from which to begin.

Starting as I did from the title and the table of contents, then I have a general idea of what the book is about, whether it is politics or food, then I can narrow it down from there. Then I am looking at the chapter headings and main ideas of paragraphs to find the main ideas of the book, which will then come together as a main idea for the book: what the book is about.

Participant 1's frame for *We've Got Issues* came from her examination of the cover and the table of contents. From those, she had a basic, though unarticulated, understanding of the work. For *The Crazy Makers*, her frame was from the title and cover. She described her frame as an assumption, "I actually know a lot about this.... I have a degree in nutrition. I feel this is going to be totally about processed food. I could be wrong." Participant 8 acknowledged his frame for Book One when he stated: "Just flipping through the book now; the introduction page has the first sentence: 'Do politics matter?' So, I think I am on the right track as far as political issues and what matters." He had already developed a frame from the title and table of contents; this sentence helped to reinforce his frame/assumption.

The second component involves the identification of discrete pieces of the aboutness puzzle. Throughout the examination, individual pieces are collected which relate to the various levels of aboutness. Most participants using this approach took notes to keep track of the individual pieces, but some did not. Puzzle pieces can be almost anything. Participant 10 noted the following pieces from Book One:

- Politics
- Economy
- Generation gap
- Social Security
- Medicare
- Taxes
- Homeless
- Middle class
- School issues
- College
- Health care
- Environment
- Civil rights
- Guns and gun control
- Guns and schools
- Defense
- Ethics

Some were written notes and others were only spoken aloud, but each was a “note” about chapter-level aboutness. Others made note of pieces that reflected certain aspects of the content. Participant 9 did this with *The Death of Satan*. Instead of making note of the chapters’ content, her puzzle pieces included concepts that went beyond those simple boundaries:

- Pop culture visual elements
- Images of horror been so widely disseminated
- Killings and murders especially for small things like furs or cars
- Bosnia
- Repertoire of evil has never been richer
- Devil or the Fall
- Devil was actually a presence
- Banality of evil
- Secular rationality
- Why people don’t talk about evil in terms of Satan anymore

These concepts were then used to build her understanding of aboutness.

The final component of Puzzle Building is the completion of the puzzle: putting together the aboutness statement for the item. It may entail a period of reasoning to piece the details together or it may reflect a stringing together of the notes collected during the examination.

Participant 8 describes these processes as:

You go through and collect a lot of information from the chapter headings and section headings. I took those and saw how they fit in categories and sharpened them down. Does this fit? Does this fit? Where does it fit? Once I had everything fit into something, then I mash it all together into a more cohesive idea like “domestic government finance.” Then take those and put them back and finally have my sharpened idea.

Participant 10 described the process as one of collecting ideas and then processing the information at the end of the gathering process. She does point out that there are connections made during the process to a certain degree; it does not completely wait until the end.

I think it is more of the gathering. I was just going to go through this and then step back and see what it was about. I read the introduction and still had no clue what he was saying; I came across some word that I had no clue as to what it meant, so I had to keep going. I kept going until I saw something that I could interpret and

understand. Maybe, I was definitely building upon as I went through—I could remember that he just talked about this and now he is talking about this again—but it wasn't until the end that I really stepped back and thought about, overall, what is this guy talking about. Yeah, definitely, when I was writing some of those [aboutness statements], I just looked at what were the little words I jotted down. Well, that stuff formed my overall opinion, and how I worked my final paragraph. I think I made the connections as I was going through the book. I was able to see, especially the first one, *We've Got Issues*. I said right off the mark: pop culture. As I moved through it more, I saw more pop culture and more. I saw one concept and then I saw more concepts. I saw Generation X here, then younger generation, then older generation. I was seeing it, but I didn't step back and say this was targeted to getting this generation involved.

While she did the formulation of the aboutness statement at the end of the process, and after viewing the entire item, she did make some connections and gain some understanding of how the discrete aboutness pieces interacted as she gathered the pieces. In other words, she put together some of the concepts she encountered to represent a particular feature of the puzzle before reaching the end. She pieced together certain discrete units within the overall picture, so that she could add a complete unit into the final puzzle. It is similar to putting together a particular visual component of a jigsaw puzzle, such as a distant castle, a vibrant bush, a red barn, etc. because the pieces that make up that visual feature are eye-catching or stand out in some way. Examples of the complete puzzles are found in the participants' aboutness statements, but there are also some attempts to fit the pieces together before the final statement. For instance, Participant 8's notes about *The Death of Satan* included: philosophy, religion, American history, evil, Satan, sin, and sociology. His aboutness statement was a rearrangement of these notes. "This book is about the philosophical history of the development of the idea of the devil and evil through the progression of human society and history, especially American history."

Participant 10 took the following notes (puzzle pieces) during her examination of *The Death of Satan*:

- Early America-presence
- Strong and descriptive
- 18th century—Satan role diminished, disassociated
- Superstition, pride
- Shift in the use of the word “evil”
- Implications no longer about morals but marketing
- Relationship with God, making people responsible
- Morals
- 19th century—commercial culture
- Emergence of change, sin is irrelevant
- 20th century scapegoating
- Evil as other versus evil as privation

She then fit these pieces together to complete the aboutness puzzle. Her aboutness statement read:

The Death of Satan by Andrew Delbanco examines the role of Satan in American history and how the concept of “evil” has changed. In early American history, Satan’s presence kept man moral. In the 18th Century the role of Satan diminished, and the word “evil” was simplified. The fear of Satan no longer kept people doing what they were supposed to. In the 19th Century, sin is irrelevant without fear of the devil and the belief in chance rules how people behave. In the 20th Century, without Satan, evil is a concept that can be manipulated. Evil is not embodied by one person, but becomes a concept, like communism.

Her aboutness statement was an arrangement of the discrete pieces she had collected throughout the process. This approach is quite different from the other model: Pearl Growing.

7.2 THE PEARL GROWING MODEL

The Pearl Growing approach is a more holistic process. It places more emphasis on understanding the aboutness of the entire item, and is less concerned with individual pieces or linearity. Pearl Growing involves an evolutionary approach to determining aboutness, with a participant’s understanding growing and changing as the content and context are revealed

throughout the examination. Pearl Growing begins with the development of a core notion of the item's aboutness, which evolves into a more complete and complex understanding as more data are encountered. Layers of information are added to the core idea in the same way that a grain of sand inside an oyster develops into a fully-grown pearl; a pearl of aboutness develops as layers of complexity are added to the initial grain of understanding. Some pearls are grown quickly, while others may require more time and multiple growth stages, as the participant's understanding becomes fully developed.

Pearl Growing may be used to determine both macro-level and chapter-level aboutness. Some participants used Pearl Growing only during their examinations of the chapters. For instance, Participant 1 grew pearls for each chapter. Those pearls were the puzzle pieces she used to complete her final aboutness puzzle. At the macro-level, she was a puzzle builder; within some individual chapters, she was a pearl grower. Some of the other participants used Pearl Growing to develop the initial framework for their puzzle, and then began Puzzle Building once the frame was pearl-grown.

The participants using Pearl Growing tended to have fewer stated chapter-level or micro-level aboutness assumptions than those who used Puzzle Building. The participants who used Pearl Growing in two or more of the items placed a greater emphasis on macro-level aboutness and other types of aboutness than puzzle builders. This is illustrated in Table 7.2.

Table 7.2: Pearl Growers’ Preference for Macro-level and Other Types of Aboutness

<i>Pearl Growers</i>	<i>Total number of assumptions</i>	<i>Percentage of assumptions focused on Macro-level or Other Types of aboutness</i>
Participant 3	27	92%
Participant 4	10	90%
Participant 5	19	58%
Participant 6	31	80%
Participant 7	24	71%
Participant 9	11	82%
Participant 11	13	100%
Participant 12	14	93%

The pearl growers did not focus as much on the micro-level or chapter-level of aboutness. When pearl-growing participants did make micro-level or chapter-level aboutness assumptions, these assumptions were often made as the pearl growers reinforced their already established understandings of the aboutness.

Participant 3’s description of the Pearl Growing technique provided the name for the process, and she also relates how the process goes beyond the recognition of a single main concept.

It builds like a pearl. You get layers and layers of understanding. Every phrase you read adds something to that until you are comfortable with the summary/understanding that I had. They were all fairly complex. They weren’t just “This is a book about Gen Xers” or “This is a book about politics.” It had to be: “This is a book about politics written for Gen Xers focusing on the idea they were interested in preserving their own money and how they can influence government to do that.” Once I had a fairly complex pearl that was enough.... You have to take words that were key to each book. “Politics,” “Brains” and “Evil”. You can take those primary words, but this isn’t a book about brains. It is a book about artificial additives and food, and bad chemicals getting into your body. This isn’t a book just about brains; there are a lot of books out there about brains and they cover a wide variety of sub-topics. So there are sub-themes maybe that run in all of these. So, it is important to identify the primary topic, evil. But we are not talking about just evil. We are talking about evil in America and we are talking about history. So, it’s a history of evil in America or a history of the

philosophy of understanding evil. Those are all things ... evil doesn't stand by itself. You had to pick out all those other words as well to tell what it was about. And those are words that occur frequently and they occur in conjunction with the primary word that you are looking for.²⁹⁸

She states that the process entails the identification of a relatively simple main concept to describe the aboutness, and then continuing to search through the item to find enough information to create a more complex, more sophisticated understanding of the item's aboutness, one that involves an understanding of context and the relationships among concepts. She points out that the initial grain of sand, *evil* or *brains*, may be easy to spot, but determining the fuller understanding of aboutness is more challenging. It is very important to create a context for the grains of sand and to include the rest of the aboutness concepts found in the work. This must be done in order to create a complete pearl, i.e., a useful aboutness description. Some participants referred to the process as one of "fine-tuning." They stated that they made an initial assumption, and focused on fine-tuning it. The aboutness is refined or sharpened; it becomes a more complete, more nuanced description. Participant 6 described it as, "a process of evolution."

Participant 7 stated:

I knew what the book was about, but as I skimmed, I was fine tuning what the book was about. It was a re-focusing. The skimming adds to the details of how the aboutness is implemented. I have a better understanding or feel of the whole text.²⁹⁹

The layers of additional information help the participants to refine and reinforce the grain of sand that began the process.

The first component of Pearl Growing is the sand. This can be an initial assumption of aboutness or just some concept from the item that stands out to the participant. Finding their grain of sand is one of the first activities performed by pearl growers. It may be discovered

²⁹⁸ Some of this passage was also used in the discussion of Wilson's Objective Method.

²⁹⁹ This quote was also used to discuss the refining process.

through simple extraction of a word or phrase, or it might require more activity. Examples of grains of sand usually come from the covers, title pages, and tables of contents. Participant 3, for example found her grain of sand for *We've Got Issues* from the table of contents.

Alright, Politicians, Paramours, and Peccadilloes, America's Report Card, Social Insecurity, Medicare ... So this is a book about American issues that I am looking at. Okay, I am guessing that this is an anti-current establishment book.

This provided enough information to form a base from which to start the development of the pearl. Participant 7 found her grain of sand for *The Crazy Makers* from the acknowledgements. "So, she's going to talk about nutrition in the book." She immediately began adding layers of complexity to that kernel. Within moments, her sand grew into a rudimentary pearl. Participant 10 grew pearls to create her chapter-based puzzle pieces. Her sand was usually just the chapter title or one or two words extracted from the title, which were then grown into pearls during her examination of the section headings and text in the chapter.

The second component of Pearl Growing involves wrapping the initial grain of sand in layers of information. This can involve the use of any of the broad concepts or minute details found during the examination of the item. Layers can be added at anytime, and can be numerous or few. Some participants added only two or three layers of complexity (particularly when dealing with a chapter pearl), while others continued through until they reached the end of the item. The latter situation occurred more frequently with *The Death of Satan* because of the complexity of the arguments and the scholarly nature of the text.

The third component is the completed, fully grown pearl of aboutness. The pearl is complete when understanding occurs. It is a more complex understanding than found in the initial grain of sand. This understanding of the aboutness may be on a chapter-level or macro-level. It may be the final aboutness statement or chapter-level note(s). The following example,

from Participant 1, and originally seen in Section 6.7, is used to illustrate chapter-level Pearl Growing. The processes and operations from the previous section are still present, but the stages of Pearl Growing have been added. In this example, Participant 1 needed a two-stage Pearl Growing process to complete her understanding of the aboutness.

“Politicians, Paramours, and Peccadilloes.” **[Input]** “Forget drugs. This generation is ‘just saying no’ to politics. Lies, scandal, bickering, and partisanship has [sic] turned us off. How can younger Americans take Washington seriously? And what will happen to our democracy—and our issues—if we don’t?” **[Input]** Chapter 1 – political figures **[Sand, Note-taking, Assumption, Summarization, and Extraction]**

“Stereotypes.” Yeah, yeah, yeah, we know about that. **[Input and Interpreting, Layer]** “Dirty Rotten Scoundrels.” **[Input and Reinforcing]** Yeah, this is confirming everything I feel. **[Layer, Reinforcing]** Forget the picture, it’s not the text. **[Ignoring/Skipping]** “WEB OF DECEIT”; it jumps out at everybody. **[Layer, Input and Reinforcing]**

“Who’s the Enemy Here?” **[Layer, Input and Reinforcing]** Reading this part here that jumped out at me, because I am real interested in young adults. It says, “The good news is that despite our current lack of interest, Generation X is not totally devoid of political potential.” **[Layer]** I can testify to that. **[Input, Making Associations, and Reinforcing]**

“Only 1 percent of 17-24 years olds identified themselves as apolitical.” **[Layer]** No Partying Down. **[Layer, Input and Reinforcing]** Who cares about somebody’s nuts in their cookies? **[Making Associations]** “Impotence in Washington—Political Impotence, That Is.” **[Layer, Input and Reinforcing]** Kind of skimming through—“So Goes Around.” **[Layer, Input and Reinforcing]**

[Wrote note:] Political figures—opinion—trust—the public. **[Pearl #1, Note-taking, Assumption, Refining, Interpreting, and Summarization]**... “But Generation X’s rationale is to ignore the mess. Everything that’s happened in Washington in the last 14 months confirmed every young person’s suspicions about government” **[Layer, Input and Reinforcing]** blah, blah, I don’t need to read that. **[Ignoring/Skipping]** “If I don’t vote, will they all go away? Unfortunately they—the politicians—and our problems won’t.” **[Layer, Input and Reinforcing]** So, the first one’s about voting. **[Pearl #2, Note-taking, Assumption, Refining, Summarization, and Extraction]**

This excerpt illustrates how an initial assumption regarding the aboutness of a chapter can be grown into a pearl of understanding. The participant began by examining the chapter title and abstract. Using extraction and chapter-level assumption making, these features provided the initial grain of sand that would eventually mature into a pearl of understanding. In her notes, the participant jotted down “political figures;” a description of her initial understanding of the chapter. It is neither complex nor complete. Having discarded many other concepts from the text (apathy of younger Americans, scandals, lack of credibility, etc.), she favored a broad general description, which needed to be sharpened and refined to be useful. As the participant encountered more of the chapter content, she added layers of complexity to the sand, and began to make associations between the information presented and her own experiences. Some information helped to reinforce her chapter-level aboutness assumptions, while others helped her to refine or refute her assumptions. After developing a more complete pearl, the participant described her understanding again. The revised verbal representation was more focused, going from the broad “political figures” to the more specific “political figures—opinion—trust—the public.” The participant’s pearl (her understanding) had expanded and her summary, in turn, had been refined. She did add more information to her pearl later in the process when she encountered additional content. That addition, “vote” completed her pearl. Her verbal description does not reflect her total comprehension of the chapter’s content, but it does contain enough information to represent the chapter’s pearl-grown puzzle piece. This example shows Pearl Growing used in conjunction with the larger Puzzle Building process. Most participants simply used Pearl Growing to establish the aboutness of the entire item.

7.3 ILLUSTRATIONS OF THE MODELS

The following excerpts are from the transcripts of some of the participant's analyses of the items. The excerpts were chosen to show the participants' uses of various components and processes of aboutness determination. The excerpts illustrate how the two primary models and the various supporting processes can interact. The components of the models are in boldface type. Other codes for bibliographic features, content characteristics, etc. are added as well.

7.3.1 Excerpt 1

Participant 1 determined aboutness by examining both macro-level and chapter-level aboutness. She used Puzzle Building along with various supporting processes and operations to determine the macro-level aboutness of the entire item. When she reached the chapters, she used Pearl Growing to determine the aboutness, and each chapter's pearl was a piece of the macro-level puzzle being constructed. But before she could build the puzzle, she needed to develop a border or framework within which to work.

So the title of the book is: We've Got Issues: the Get Real, No B.S., Guilt-free Guide to What Really Matters. Meredith Bagby. [**Frame, Title, Cover, Author, and Input**]

Looking through the contents and chapters: seventeen of them. Politicians, Paramours ... America's Report Card, Trick or Treat, The Tooth Fairy, Mysterious Machinations of the Reverse Robin Hood ... hmm, confusing ... Social Insecurity, Mediscare, Poor Fred, What Happened to George?, Ward and June, Who?, Public babysitting, The Graduate, You Want Fries with That, The Green Generation ... NOT, Civil Fights, Yale or Jail, Golden Arches, Under the Covers. So that's the basic rundown. [It] sounds cool. [**Frame, Table of Contents, Organization of the Text, Pop Culture References, Input, Assumption, and Interpreting**]

Keep my finger in there because I know I will go back to it. [**Table of Contents, Organization of the Text, and Reasoning**] Jotting down 17 chapters. [**Frame, Note taking**]

Acknowledgements-Who cares? Introduction – No, I will make up my own mind. [**Acknowledgements, Introduction, Ignoring/Skipping Over**]

The conceptual analysis process generally begins with an examination of the preliminary features of the item (cover, title page, table of contents, etc.); it was no different for this participant. She made the unusual choice of not looking at the introduction, preferring to “make up [her] own mind” instead. The participant began by attempting to build a frame of reference for the macro-level aboutness puzzle. In order to build the puzzle’s border, assumption making and extraction were used. The participant collected the title and the author’s name for her frame, but the initial framework was not complete until she examined the table of contents. Her framework was a vague understanding of the nature of the work, not a complete understanding of the aboutness. The existence of the initial framework is inferred from the statement that the book “sounds cool,” i.e., the participant had made a macro-level assumption about what the work is about, and she believed that she would find the book interesting. In this example, only a few processes were part of the analysis. Refining and categorizing may also have been occurring, but because the initial framework was never explicitly described and think-aloud methods cannot capture unspoken processes, it is unclear if the initial notion of aboutness was being sharpened during the examination of the table of contents. It was also unclear if the participant was placing this work in either a formal or ad hoc category because nothing was spoken aloud. The participant did not use summarization since she never verbalized her macro-level assumptions of the item’s aboutness; she did, however, begin the note taking process by writing down the numbers 1-17 in preparation for her extremely linear approach. This was another part of building her puzzle frame.

7.3.2 Excerpt 2

This example is an excerpt from the final step in Participant 8's Puzzle Building process.

There is an index in the end that is six or seven pages. **[Input and Index]** The index refers to a few entries under presidents, especially Clinton. Clinton has several entries. Other big sections are for George W. Bush, the economy, education, elections, federal budget, foreign policy, Al Gore. **[Input, Index, Proper Names, Title/Intro concepts, Extraction, and Reinforcing]**

These are the stars of the book. **[Puzzle Piece, Index, Finding Context, Interpreting, Reinforcing, and Reasoning]**

Medicare, politics, poverty, Social Security, taxes, trade—those are the major sections, so I would assume that those are some of the larger sections of the book and also the things that the author (or indexer) thought that the readers would care about or that the author thought was important. **[Puzzle Piece, Input, Index, Author's Intent, Proper Names, Title/Intro Concepts, Extraction, Assumption, Reinforcing, Summarization, Interpreting, and Reasoning]**

I flipped through the entire book now. **[Linear, Reached the End]** What is it about? **[Reviewing]**

It is about political issues especially as they pertain to 2000 presidential election. It includes information on the current state of America, American politics, some government programs (like Social Security, Medicare), taxes, welfare, youth violence, environmentalism, things like that. **[Completed Puzzle, Places, Proper Names, Dates/Times, Reviewing, Summarization, Refining, Interpreting, and Reasoning]**

We've Got Issues is about political issues:

- 1) taxes, Social Security, Medicare: government domestic finance
- 2) foreign relations, environmentalism: global involvement/altruism
- 3) education, youth: domestic policy, especially concerning youth
- 4) politics, politicians, personality: political candidate selection

[Completed Puzzle, Proper Names, Note taking, Categorizing, Summarization, Refining, and Interpreting]

It is leaning to the liberal side, perhaps, but not sure. **[Author's Point of View, Assumption, Interpreting, and Finding Context]**

It is concerned mostly with the 2000 election. That pretty much covers it, as far as I can tell. **[Dates/Times, Note-taking, Assumption, Interpreting, and Finding Context]**

This book is about current political issues, especially those involved with the 2000 presidential election. **[Completed Puzzle, Summarization and Interpreting]**

After examining 17 chapters and identifying various pieces of the aboutness puzzle, this participant described his understanding of the item's aboutness. After skimming the entire item, Participant 8 used the index to gain a better understanding of the aboutness. He examined the index entries and interpreted their importance. He used the index as another piece of the puzzle, but it also provided context and reinforcement for the assumptions he had been making throughout the examination. The participant assumed that the index entries with the most pages were of greater importance to the aboutness, an assumption that might not always be correct. After skimming the index, Participant 8 then summarized his understanding of the aboutness. His final aboutness statement was constructed primarily from his memory and the table of contents. He enumerated the major concepts he found in the item. Then, he used an unexpected method. Not only did he piece together the final puzzle/aboutness statement, which in itself was a reduction of the text, but he also reduced his statement of understanding further through categorization. On paper, he wrote down the major concepts he saw in the item and grouped them together into clusters. From these clusters, he attempted to find a category that included each of the concepts he clustered together. For example, he grouped the concepts *taxes*, *Social Security*, and *Medicare*, then categorized all three under the umbrella phrase *government domestic finance*. His final four categories were: *government domestic finance*, *global involvement/altruism*, *domestic policy, especially concerning youth*, and *political candidate selection*. He was prepared to let these categories stand as his final description of the aboutness, but the researcher asked him to write a more narrative aboutness statement in addition to the four categories. In response, he created an even shorter, broader macro-proposition that encompassed

the four categories. The completed puzzle (the participant's complex understanding of the document) is not in itself communicable; it must be translated into words (bounded by the limits of language) and reduced to a macro-proposition that addressed the subject content of the entire document. The macro-proposition/aboutness statement is a greatly reduced verbalization of the participant's fuller understanding. His entire understanding of the aboutness was eventually boiled down to: "This book is about current political issues, especially those involved with the 2000 presidential election."

7.3.3 Excerpt 3

The following excerpt illustrates Participant 7's use of Pearl Growing to determine the macro-level aboutness of *The Crazy Makers*. The entire coded transcript of this examination is included. So, in addition to the model components and the operations and processes, bibliographic features, content features, and content examination strategies are included in the square brackets after the participant's statements. This example includes the use of multiple-stage Pearl Growing.

This book is called *The Crazy Makers: How the Food Industry is Destroying Our Brains and Harming Our Children*. [Sand, Title, Cover, and Input]

Then she has pictures of cheeseburgers repeated across the cover. From the title it sounds like this is going to lambaste pretty much of the food industry [Layer, Title, Cover, Author's Intent, Input, Assumption, Interpreting, and Reasoning]

I am going to guess that there is a chapter on fast food, partly because I read *Fast Food Nation* a few years ago. It reminds me of that type of book. [Layer, Assumption, Categorizing, Reasoning, and Making Associations]

The back cover is black. Another book by her is called *Your Fat is Not Your Fault*. I am not quite sure what that is, but that doesn't really help me figure out what this book will be about. [Layer, Also by Author, Input, and Reasoning]

I am going through the Acknowledgments to see if she has thanked anyone in particular. She thanks her children, her husband, and a teacher. “Thank you Nature’s Life for providing the breakfast drink and flax oil for the project. I appreciate your support, and the kids benefited from this great nutrition.” **[Layer, Acknowledgements, Input, Finding Context, and Reasoning]**

So, she’s going to talk about nutrition in the book. **[Layer/Incomplete Pearl, Acknowledgements, Extraction, Assumption, Refining, Interpreting, Reasoning, and Summarization]**

She’s thanking some doctors. “Your knowledge of nutrition and medicine was invaluable.” Thanked some other people. Then, she thanks God, “who designed the most wonderful food, perfectly suited to nourishing our brains and our spirits.” **[Layer, Acknowledgements, Input, and Reinforcing]**

From that it seems like she’s going to talk about eating a lot more natural food, not the processed foods; maybe raw foods; things that are not necessarily manufactured, but that the earth produces. **[Layer, Acknowledgements, Assumptions, Refining, Interpreting, Reasoning, and Summarization]**

Then she’s talking about mental troubles. She says, “To the mental health practitioners and educators, frightened at the increase in mental disorders, searching in the wrong places for the answers.” **[Layer, Dedication, Title/Intro Concepts, Input, Extraction, Assumption, and Reinforcing]**

It sounds like she’s going to talk about the effects of what she considers poor nutrition on mental health. Most of these problems are going to result from poor nutrition. **[Layer, Dedication, Assumption, Reinforcing, Refining, Interpreting, Summarization and Reasoning]**

Table of contents: Our Food and Suffering, Building the Infant Brain, Nourishing a Baby’s Brain, Feeding Your Child’s Brain, Feeding the Adolescent Brain...**[Layer, Table of Contents, Title/Intro Concepts, Input, and Reinforcing]**

It sounds like she is going to focus a lot on kids and a lot on how what you feed them affects their brain, mental issues, and I would also deduce that she’s going to talk about process for smarter children, having faster reflexes, synapses. **[Layer, Title/Intro Concepts, Assumption, Reinforcing, Refining, Interpreting, Summarization, and Reasoning]**

Then, at the end, she has a recipe and menu primer. **[Layer, Table of Content, Chapter Title, Input, and Reinforcing]**

So this is definitely about food and definitely about nutrition and definitely about children and mental issues. **[Assumption, Refining, Interpreting, Categorizing, Summarization, and Reasoning]**

I am going to read the Introduction. “You’re making me crazy!” Then she defines crazy. “It may be unlikely that a person could damage our brains, but what about our favorite instant and fast-food toys? What about infant formulas and baby foods?” **[Layer, Introduction, Introductory Section, First Sentences, Title/Intro Concepts, Input, and Reinforcing]**

This is pretty much the same type of stuff. She then references Rachel Carson’s Silent Spring. **[Layer, First Sentences, Titles of Works, Proper Names, Input, Reasoning, Making Associations, and Reinforcing]**

She’s clearly going to come down really hard on the food industry. **[Author’s Point of View, Assumption, Interpreting, and Reasoning]**

“What about food industries that wantonly destroy our bodies and our brains, all in the name of profit? We call them Food Manufacturing Companies, a nomenclature that is chilling. Are they manufacturing food or food artifacts that look, taste, and smell like the real thing?” **[Layer, First Sentences, Proper Names, Title/Intro Concepts, Input, and Reinforcing]**

She seems to go on in this vein for a while. She talks generally about food. Then she says, “Instead of being eaten when we are physically hungry, food is now consumed to satisfy artificial cravings generated by a brain that isn’t working right.” **[Layer, First Sentences, Title/Intro Concepts, Input, Reinforcing, and Reasoning]**

She’s going to look at the industry and that seems to be the last sentence is “Our food is, quite literally, driving us crazy.” **[Layer, Chapter’s Final Paragraph, First Sentence, Author’s Point of View, Author’s Intent, Title/Intro Concepts, Input, and Reinforcing]**

I have a pretty good idea of what this book is about, but I am still going to go ahead and just flip through some of the chapters. Right now, at this point, I think this book is about the author’s opinions of how the food industry causes a lot of the health problems and mental issues in America. The author believes that children aren’t getting the proper nutrition and that processed food is part of the problem. I will try to be more concise in my aboutness statement. **[Pearl, Input, Refining, Summarization, Interpreting, and Reasoning]**

Chapter 1 is Our Food and Suffering. She includes a quote from the Handbook of Nutrition. **[Layer, Chapter Title, Opening Quotes, Input, and Reinforcing,]**

“Publicly the tales of our mental lives are told in the accounts that splash across the front pages.” This is real general. She's talking about mental lives more than physical health it seems. **[Layer, Introductory Section, First Sentences, Title/Intro Concepts, Input, Extraction, Reinforcing, Refining, and Interpreting]**

She's talking about people who are depressed and the American Food Culture. **[Layer, Section Headings, Bullet points, Input, and Reinforcing]**

I am going to flip back to the conclusion. There are recipes. Let's see if there's a conclusion. “A Case for Optimism” sounds like it's probably going to be the conclusion. **[Layer, Chapter Title, Conclusion, Input, Interpreting, and Reasoning]**

“There is a case for optimism. The human body has a remarkable ability to compensate even in the face of such poor nutrition.” **[Layer, Introductory Section, First Sentences, Title/Intro Concepts, and Input]**

I am thinking she might be a nutritionist because she says, “Jake was twenty-two year old when he finally came to see me. He was fresh out of jail, having...” “He wanted to feel contented for the first time in his life.” So, she started him out on a supplement program. **[Layer, First Sentences, Last Sentences, Author's Background, Input, Refining, Finding Context, and Reasoning]**

Recipes. I am flipping back to some of the chapters now. This is Chapter 6: Feeding the Adult Brain. **[Layer, Chapter Titles, Title/Intro Concepts, and Input]**

“After we pass through the turbulent teenage years and enter our twenties, life takes on a new dimension.” “Although physical growth is complete, the body does not lie dormant.” “Billions of new red blood cells...” She is talking about the body's still working. Here she's talking about the Starbucks Generation. But, because there are so many chapters about children, I want to look at one or two of them to make sure that I have a complete idea. **[Layer, First Sentences, Section Headings, Proper Names, Title/Intro Concepts, Input, and Reinforcing]**

I will look at Nourishing a Baby's Brain. The chapter starts on page 55. She talks about breast-feeding. Then she starts talking about infant formula. And she talks about how the number of breast-feeding mothers has dropped. It sounds like her point is that nutrition starts from day one from the moment you are born. She clearly supports breast-feeding. “World War II saw huge cultural changes as more and more women entered the workforce,” and as women entered the workforce, these companies took over feeding the babies. **[Layer, Chapter Titles, Introductory Sections, Section Headings, First Sentences, White Space, Statistics, Title/Intro Concepts, Author's Approach, Author's Intent, Input, Reinforcing, and Interpreting]**

I am ready to do my aboutness statement. [**Nothing New Appearing, Looked at Everything, and Stopping**]

This book is about the effects of poor nutrition, specifically processed foods, on mental health and development. The author chronicles each stage of life and how poor nutrition affects it. It is also a discussion of the American food industry and its problems. [**Final Pearl, Summarization, Interpreting, Refining, and Writing Aboutness**]

In this long excerpt, all of the components of Pearl Growing and most of the major supporting processes are presented. The excerpt began with Participant 7 examining the cover of the item. She read the title and subtitle, which was her first exposure to the content. The title, subtitle and the visual information from the cover (which was quite vivid for *The Crazy Makers*) became the sand. At this point, she also made her first macro-level assumption with her interpretation of the title: “From the title, it sounds like this is going to lambaste pretty much of the food industry.” This is an assumption about the author’s point of view, derived from her interpretation of the title and the cover imagery. She then made another assumption about the content by stating that she expected the book to contain a chapter on fast food. She was associating this item with another book with which she is familiar: *Fast Food Nation*. These two books were lumped into a category of works that deal with fast food and nutrition. She continued to collect some additional layers from the titles of other works that the author has written and from the front matter.

On reaching acknowledgements, she started to gain some understanding of the aboutness. She interpreted the acknowledgements to grow her first pearl: “So, she’s going to talk about nutrition in this book.” This incomplete pearl/layer summarized her understanding to that point. She relied on extraction to pull out the key word “nutrition” to summarize and categorize her understanding. From there, she continued to gather layers of information to add to her growing pearl and to reinforce her assumption of the aboutness. She continued to figure out the meaning

of the text, to interpret passages, and to extract words from the content to add more layers until her pearl was developed.

Her pearl was well formed by the time she finished skimming the introduction. She stated that she had “a pretty good idea of what this book is about:”

I think this book is about the author’s opinions of how the food industry causes a lot of the health problems and mental issues in America. The author believes that children aren’t getting the proper nutrition and that processed food is part of the problem.

Her understanding of the aboutness was fairly complete, but she did not stop there. She continued her text examination, during which she found some additional layers to add to the pearl. When asked what else she discovered, she stated, “The only thing I really picked up on more in the text, than just from the cover, was more of the mental issues. She does mention brains, but I wouldn’t associate that necessarily with mental issues.” She also discovered that the author is a nutritionist. After those layers were added to the pearl, the rest of the examination acted only as reinforcement for her aboutness assumption. When she stopped finding new information, she decided to stop the process and write her aboutness statement—her final, refined pearl.

This book is about the effects of poor nutrition, specifically processed foods, on mental health and development. The author chronicles each stage of life and how poor nutrition affects it. It is also a discussion of the American food industry and its problems.

The preceding three examples are an attempt to illustrate the nature of these models; they are used to show how the various components work together to help the participants create an overall understanding of the aboutness of each item. These examples show how the models’ components work in conjunction with supporting processes.

7.3.4 Participants' Implementations

The aboutness-determination model(s) used by each participant for each item is listed in Table 7.3. Their individual implementations of these two conceptual models are illustrated in nine figures that are included in this section. These implementations are being referred to as process models to distinguish them from the two primary conceptual models: Pearl Growing and Puzzle Building.

Some process models were used only by a single participant; other models reflect several participants' approaches to aboutness determination. Of the nine process models included, three illustrate different approaches to Pearl Growing and six illustrate various forms of Puzzle Building. The process models used by the participants are identified in Table 7.4, as are the numbers of the figures that represent their processes. Each of the models is described briefly, and the participants using that model are identified. For more information about the individual implementations of the conceptual models and the specific uses of the process models by each participant, please see the participant narratives in Appendix G.

Table 7.3: Participants' Models for the Three Examinations

	<i>Item 1: We've Got Issues</i>	<i>Item 2: The Crazy Makers</i>	<i>Item 3a: The Death of Satan</i>	<i>Item 3b: Folklore and the Sea</i>	<i>Approaches Used</i>
Participant 1	Puzzle Building	Puzzle Building	Puzzle Building		Same approach to all items
Participant 2	Puzzle Building	Puzzle Building	Puzzle Building		Same
Participant 3	Pearl Growing	Pearl Growing	Pearl Growing		Same
Participant 4	Pearl Growing	Pearl Growing	Pearl Growing		Same
Participant 5	Pearl Growing	Pearl Growing		Pearl Growing	Same
Participant 6	Pearl Growing	Pearl Growing	Pearl Growing		Same
Participant 7	Pearl Growing	Pearl Growing	Puzzle Building		Mixed
Participant 8	Puzzle Building	Puzzle Building	Puzzle Building		Same
Participant 9	Pearl Growing	Pearl Growing	Puzzle Building		Mixed
Participant 10	Puzzle Building	Pearl Growing	Puzzle Building		Mixed
Participant 11	Pearl Growing	Pearl Growing	Pearl Growing		Same
Participant 12	Pearl Growing	Pearl Growing	Pearl Growing		Same

Table 7.4: Participants' Process Models for the Three Examinations

	<i>Item 1</i>	<i>Item 2</i>	<i>Item 3</i>	<i>Figure Number(s)</i>	<i>Approaches Used</i>
Participant 1	Puzzle Building with Pearl Grown Pieces	Puzzle Building with Pearl Grown Pieces	Puzzle Building with Pearl Grown Pieces	Figure 7.9	Same approach to all items
Participant 2	Chapter-based Puzzle Building	Chapter-based Puzzle Building	Chapter-based Puzzle Building	Figure 7.3	Same
Participant 3	Pearl Growing	Pearl Growing	Pearl Growing	Figure 7.2	Same
Participant 4	Pearl Growing with Chapter-based Reinforcement	Pearl Growing with Chapter-based Reinforcement	Pearl Growing	Figure 7.6 Figure 7.2	Mixed
Participant 5	Pearl Growing with Chapter-based Reinforcement	Pearl Growing	Pearl Growing	Figure 7.6 Figure 7.2	Mixed
Participant 6	Pearl Growing with Chapter-based Reinforcement	Pearl Growing	Pearl Growing	Figure 7.6 Figure 7.2	Mixed
Participant 7	Double Pearl Growing	Double Pearl Growing	Non-Chapter-based Puzzle Building with Pearl-Grown Frame	Figure 7.5 Figure 7.7	Mixed
Participant 8	Puzzle Building with Pearl-Grown Frame	Puzzle Building with Pearl-Grown Frame	Puzzle Building with Pearl-Grown Frame	Figure 7.8	Same
Participant 9	Double Pearl Growing	Double Pearl Growing	Non-chapter-based Puzzle Building	Figure 7.5 Figure 7.4	Mixed
Participant 10	Chapter-based Puzzle Building with Pearl-Grown Frame and Puzzle Pieces	Double Pearl Growing	Chapter-based Puzzle Building with Pearl-Grown Frame and Puzzle Pieces	Figure 7.10 Figure 7.5	Mixed
Participant 11	Pearl Growing	Pearl Growing	Pearl Growing	Figure 7.2	Same
Participant 12	Pearl Growing	Pearl Growing	Pearl Growing	Figure 7.2	Same

The process model in Figure 7.2 represents basic Pearl Growing. It is an illustration of the most basic implementation of the Pearl Growing conceptual model. It illustrates the three major components of Pearl Growing: the sand, the layers, and the complete pearl. It demonstrates how the process begins with an initial grain of sand developed from one or more sources, possibly from extraction, making associations, categorizing, or other processes. From this initial data an assumption is made; it may be a micro-level or a macro-level assumption. It does not matter which one it is because an assumption of any kind is enough to begin the aboutness determination process. Once the sand has been established, the participant continues throughout his or her examination to add layers of complexity to the sand from various sources, while using various processes and operations. The process ends once the participant has found enough information to develop a macro-level aboutness pearl.

Basic Pearl Growing was used more frequently than any of the other models. Six participants used this model in 14 examinations. Participants 3, 11, and 12 used basic Pearl Growing to determine the aboutness of all three items. Participants 5 and 6 used this model to examine the second and third items, *The Crazy Makers* and *The Death of Satan*. Participant 4 used it to examine only Book Three.

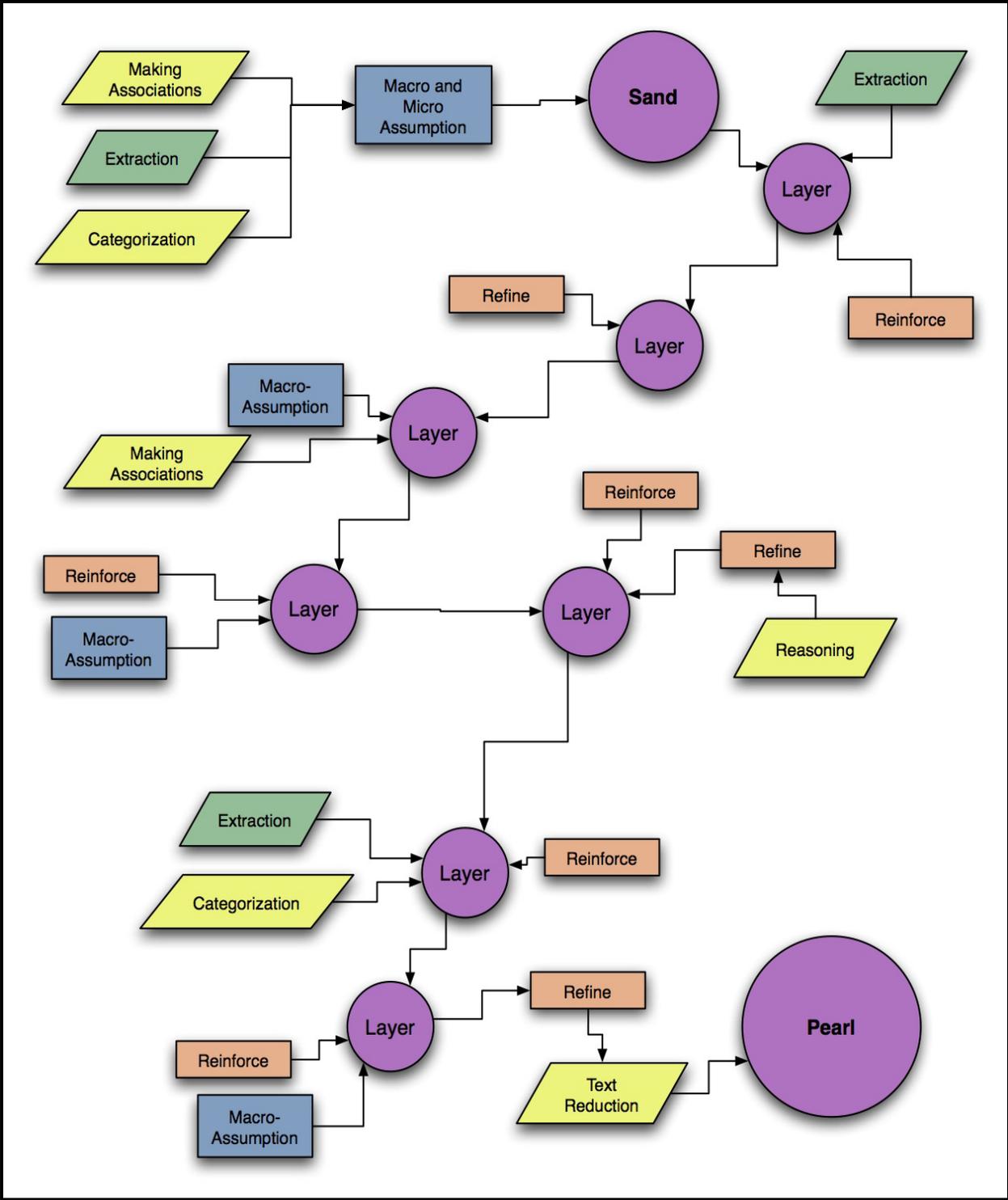


Figure 7.2: Pearl Growing

The process models in Figures 7.3 and 7.4 represent Chapter-based and Non-chapter-based Puzzle Building. They are illustrations of the most basic implementations of the Puzzle Building conceptual model. They illustrate the three major components of Puzzle Building: the frame, the pieces, and the complete puzzle. They demonstrate how the process begins with the development of a framework from one or more sources, possibly from extraction, assumption making, etc. From this initial data the frame is created. Then the participant continues throughout his or her examination to collect puzzle pieces from various sources, while using various processes and operations. These pieces may come from the determination of the aboutness of individual chapters, or they may come from discrete micro-level or macro-level statements noted in the item. The process ends once enough puzzle pieces have been collected, and the participant connects them to create a broader picture of the macro-level aboutness.

Two participants, for a total of four examinations, used Basic Puzzle Building. Participant 2 used Chapter-based Puzzle Building to determine the aboutness of all three items. An overview of her processes is found in Figure 7.3. Participant 9 used the Non-chapter-based Puzzle Building model to examine *The Death of Satan*; Figure 7.4 illustrates that process.

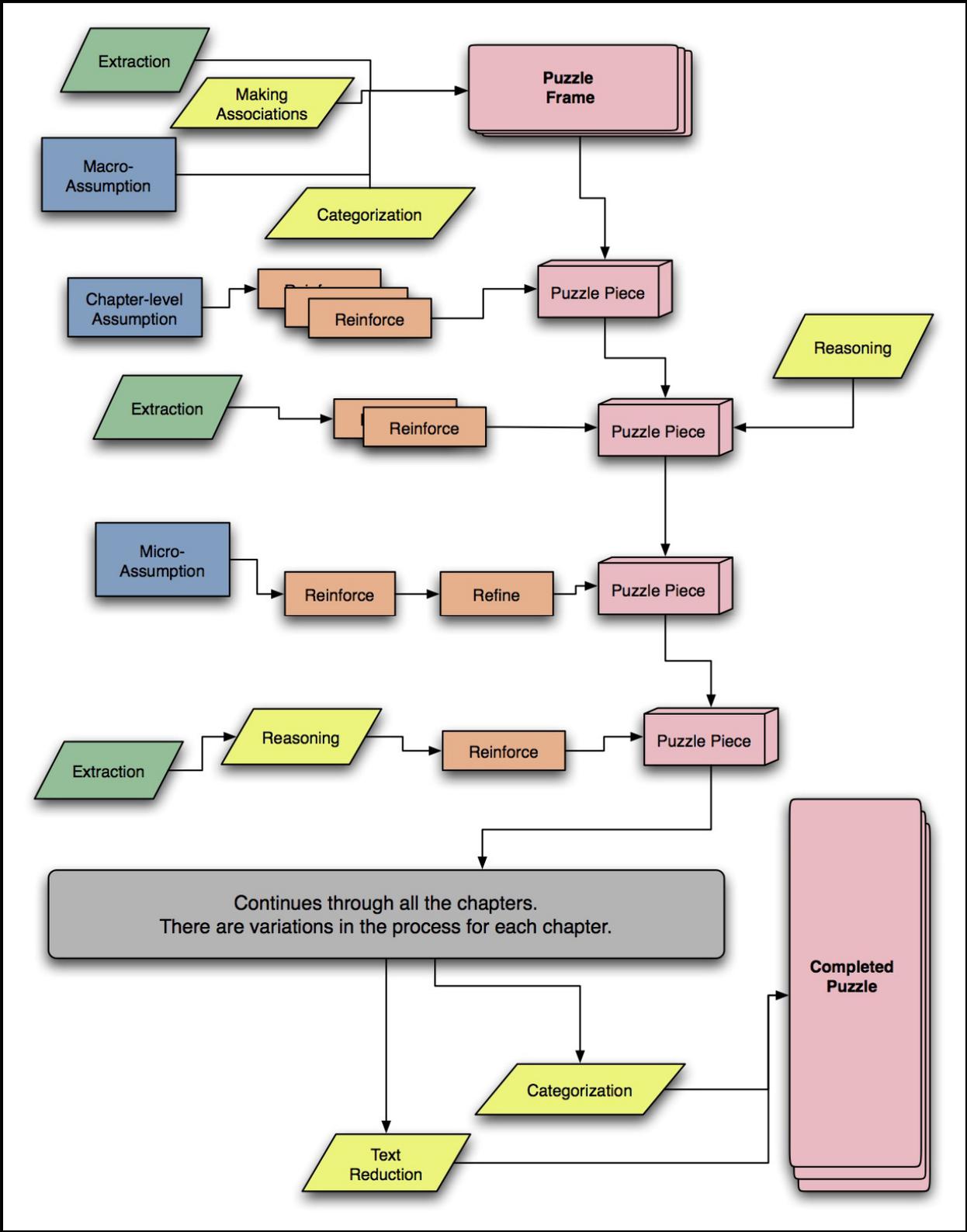


Figure 7.3: Chapter-Based Puzzle Building

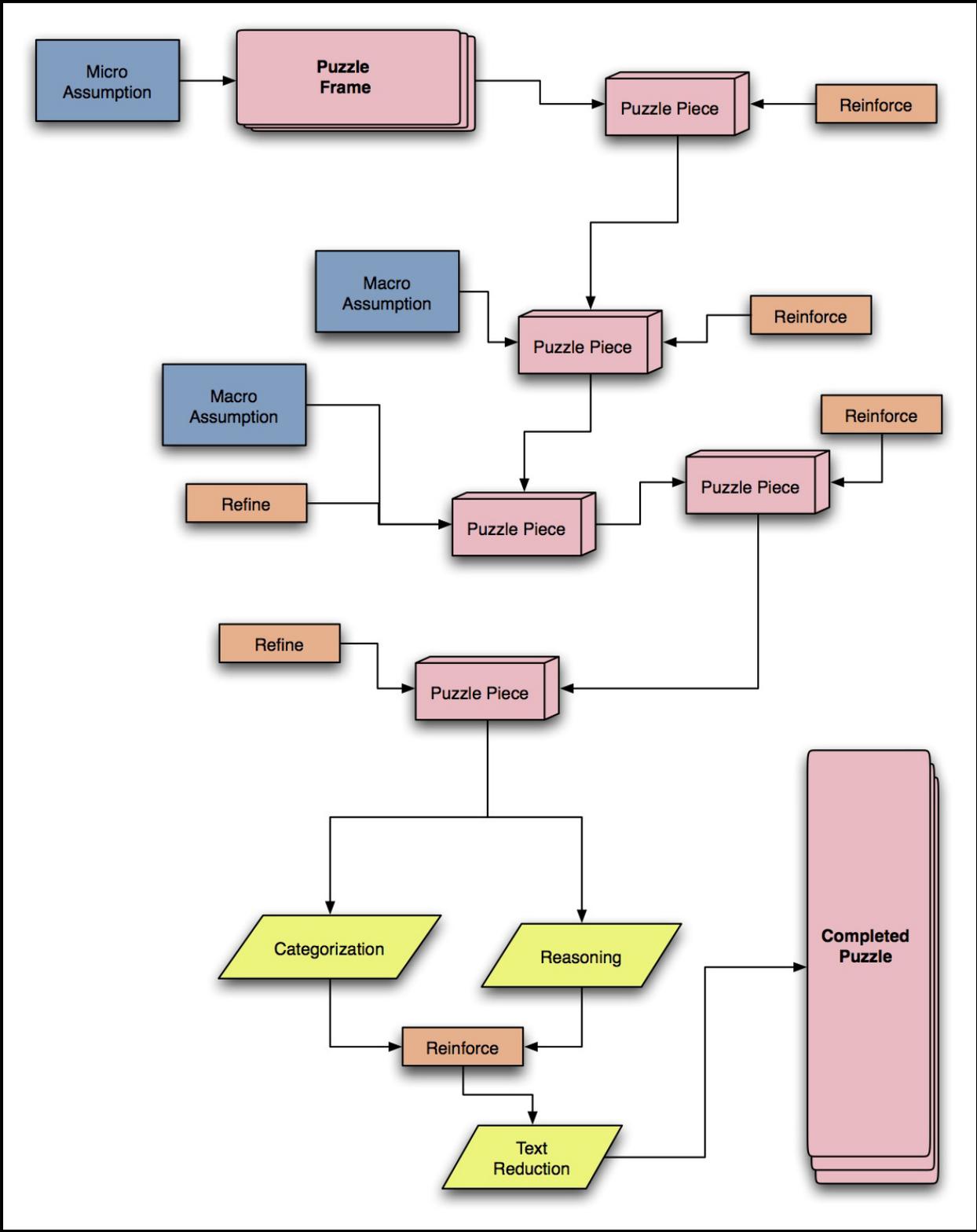


Figure 7.4: Non-Chapter-Based Puzzle Building

The following six models illustrate participants' implementations that were more complex arrangements of the two basic models. Figure 7.5 shows Double Pearl Growing. This process is a multiple-stage variation of the basic Pearl Growing model. Instead of one stage, however, the layering process may continue after an initial pearl has been developed. Double Pearl Growing occurred most frequently when participants had already determined the macro-level aboutness of the item, but then encountered one or two other details that added nuance to their understanding. In response, the participants continued adding layers to the pearl to further refine their statements of aboutness. Participants 7, 9, and 10 used Double Pearl Growing for a total of 5 examinations. Participants 7 and 9 used this approach with the first two items, but then switched to other processes for the third item. Participant 10 used this approach only for *The Crazy Makers*.

Figure 7.6 shows Pearl Growing with Chapter-based Reinforcement. This process begins with basic Pearl Growing and then moved into a chapter-by-chapter examination of the text to reinforce the aboutness. This process often started with the title as the grain of sand. Participants then developed assumptions of the macro-level aboutness from the cover, table of contents, and introduction. These layers of new information were added to the sand to form the pearls. In this process, once a pearl is developed, the participant focuses on identifying chapter-level aboutness. This is used to verify and reinforce his or her understanding of the macro-level aboutness. Participants 4, 5, and 6, used Pearl Growing with Chapter-based Reinforcement for a total of four examinations. All three participants used this approach with *We've Got Issues*, and Participant 4 also used it with *The Crazy Makers*.

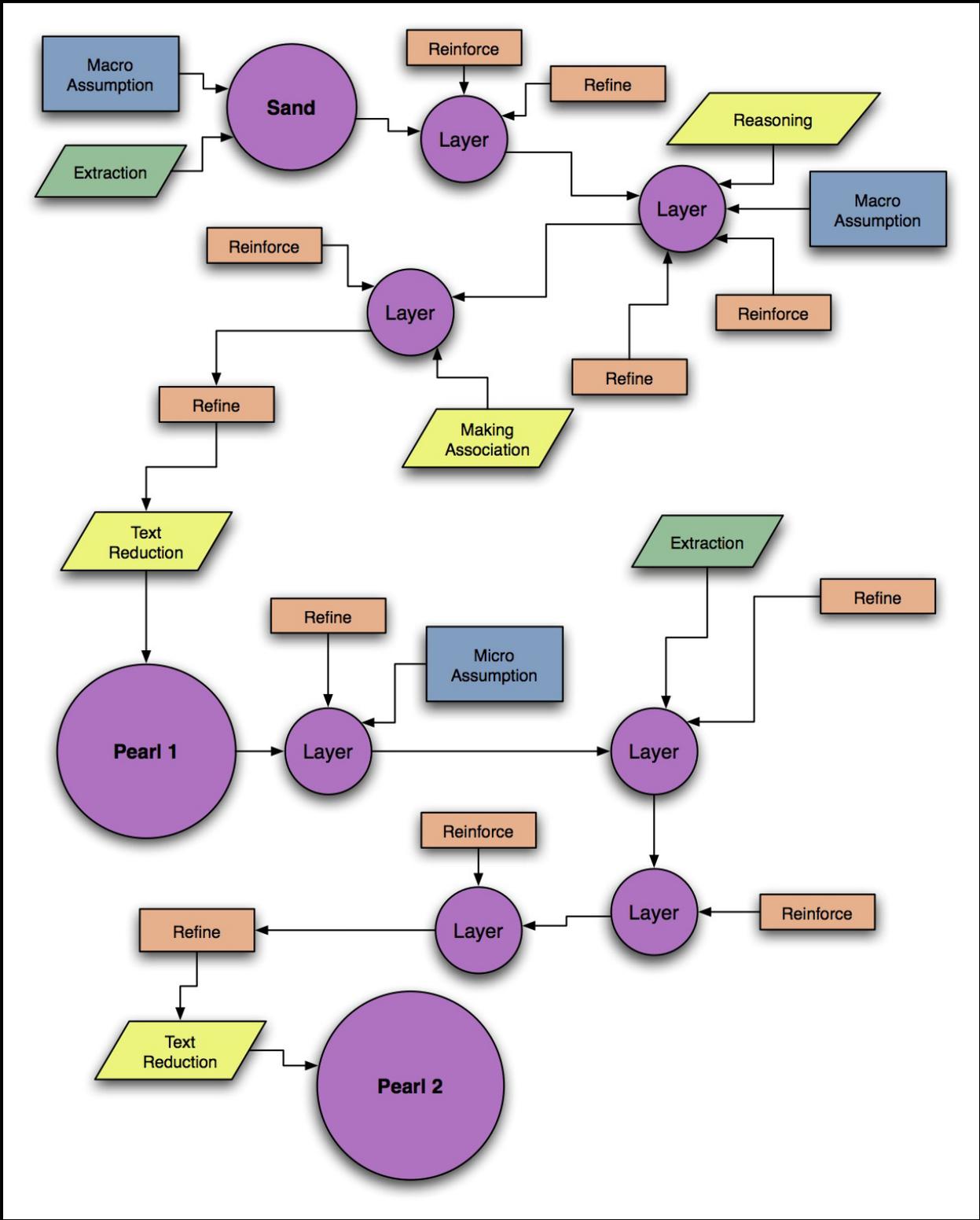


Figure 7.5: Double Pearl Growing

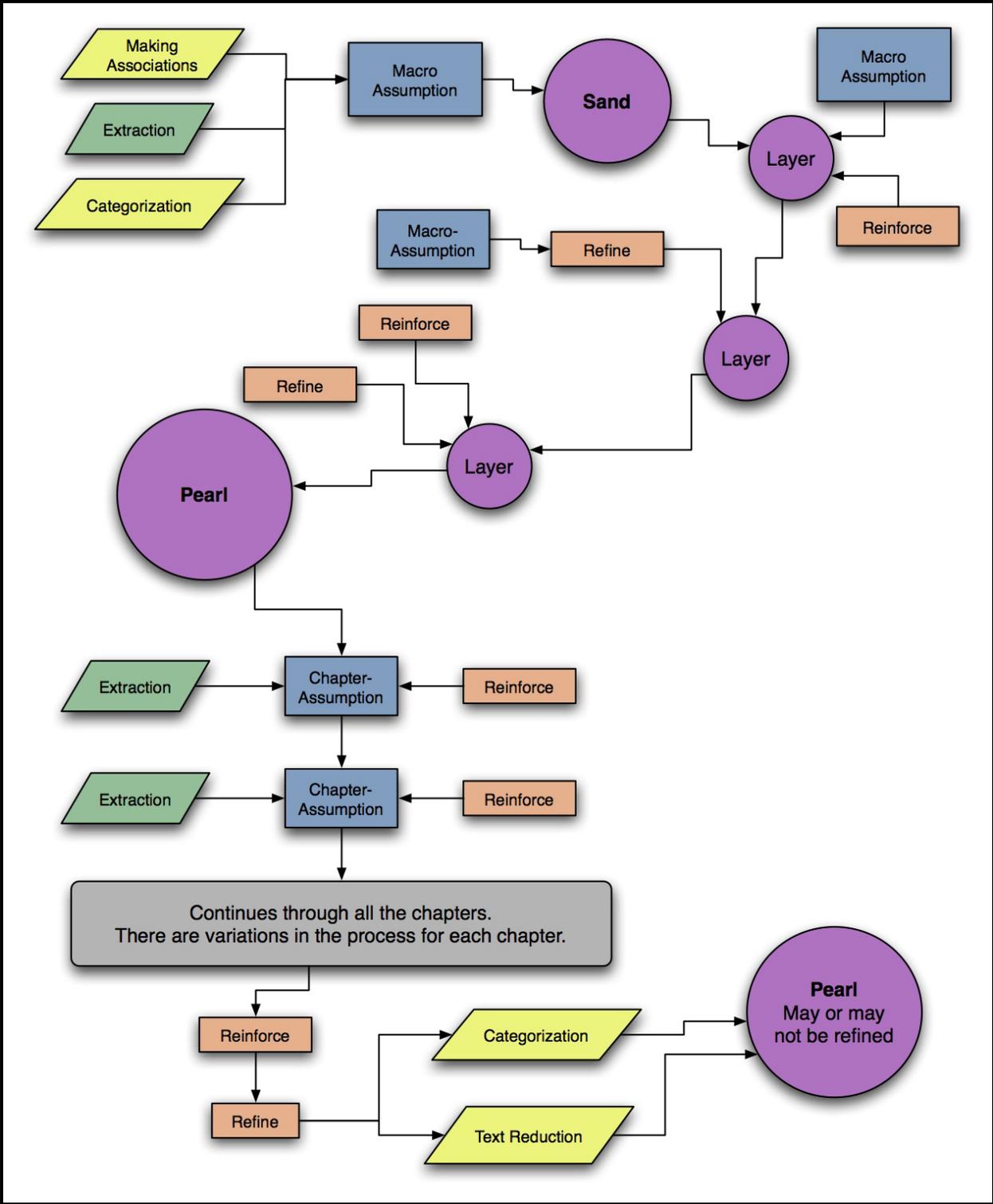


Figure 7.6: Pearl Growing with Chapter-Based Reinforcement

The remaining four process models are variations on Puzzle Building. Each process model incorporates some form of Pearl Growing as a supporting process; each model was used by only one participant. The models illustrated in Figures 7.7 and 7.8 incorporated Pearl Growing in the initial development of the participant's puzzle frame. In each case, the process started with a holistic approach to developing a macro-level aboutness assumption. It followed the Pearl Growing model, but only in the initial examination of the item. Once a pearl was grown, it was used as the frame for the puzzle. The process was then anchored by the examinations of the chapters, if the participant was using Chapter-based Puzzle Building with Pearl-Grown Frame (Figure 7.8), or by the collection of discrete pieces of information if the participant was using Non-Chapter-based Puzzle Building with Pearl-Grown Frame (Figure 7.7). Participant 7's method for examining *The Death of Satan* is found in Figure 7.7. She switched to this process from Double Pearl Growing in response to the greater complexity of the argument found in the Book Three. No other participant used this approach. Participant 8 used the Chapter-based Puzzle Building with Pearl-Grown Frame for all three items. In addition, he added incorporated text reduction and categorization in his final steps of his three examinations.

Chapter-based Puzzle Building with Pearl-Grown Puzzle Pieces (Figure 7.9) was used by only one participant in the study: Participant 1. She used this approach for all three items. In this approach, the participant used basic Chapter-based Puzzle Building throughout the analysis, but within each chapter, Pearl Growing was used to determine the chapter-level aboutness. The final process model illustrated in this section is Chapter-based Puzzle Building with Pearl-Grown Puzzle Frame and Pearl-Grown Puzzle Pieces. Participant 10 used this process model for *We've Got Issues* and *The Death of Satan*. This process is illustrated in Figure 7.10.

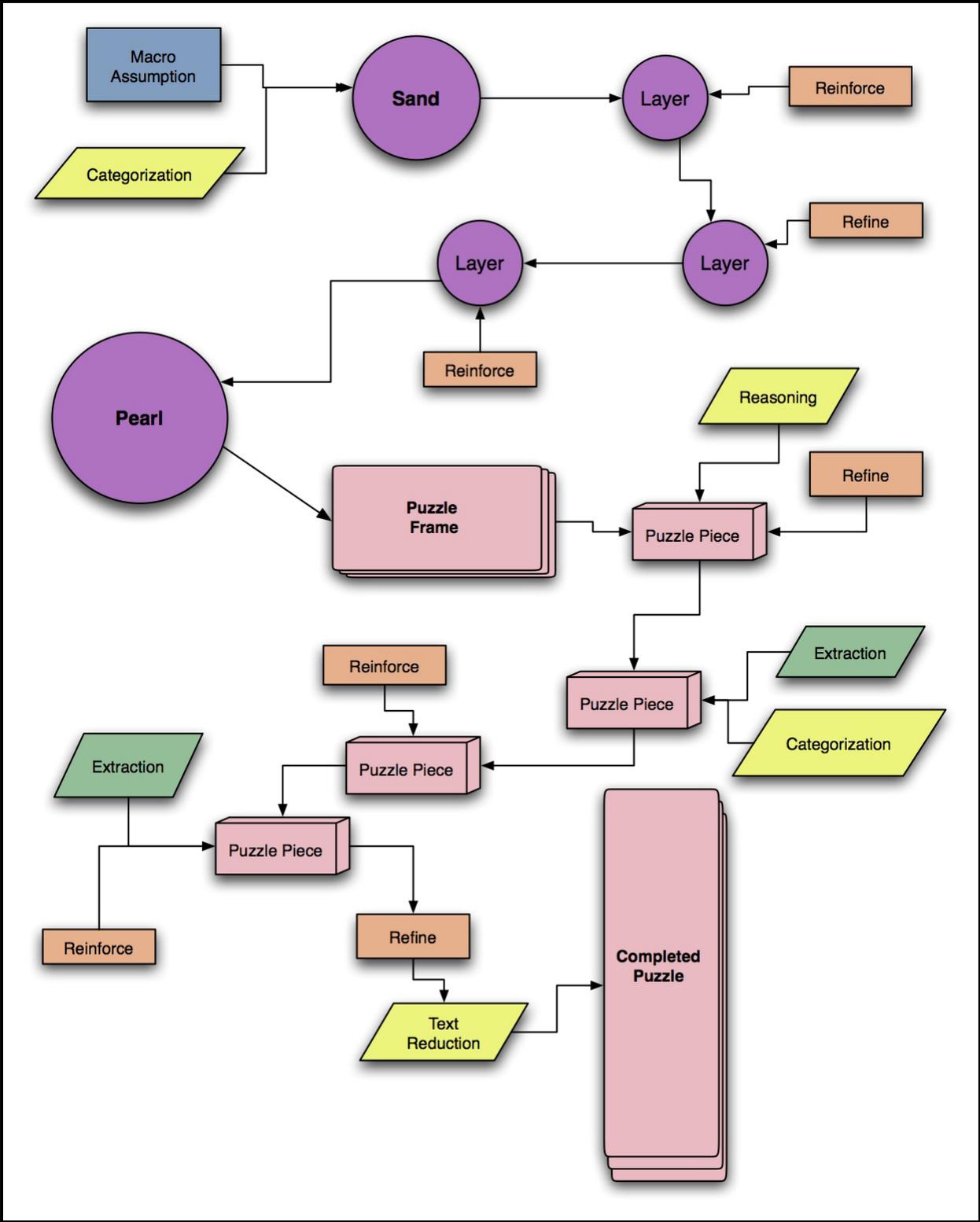


Figure 7.7: Non-Chapter-Based Puzzle Building with Pearl-Grown Frame

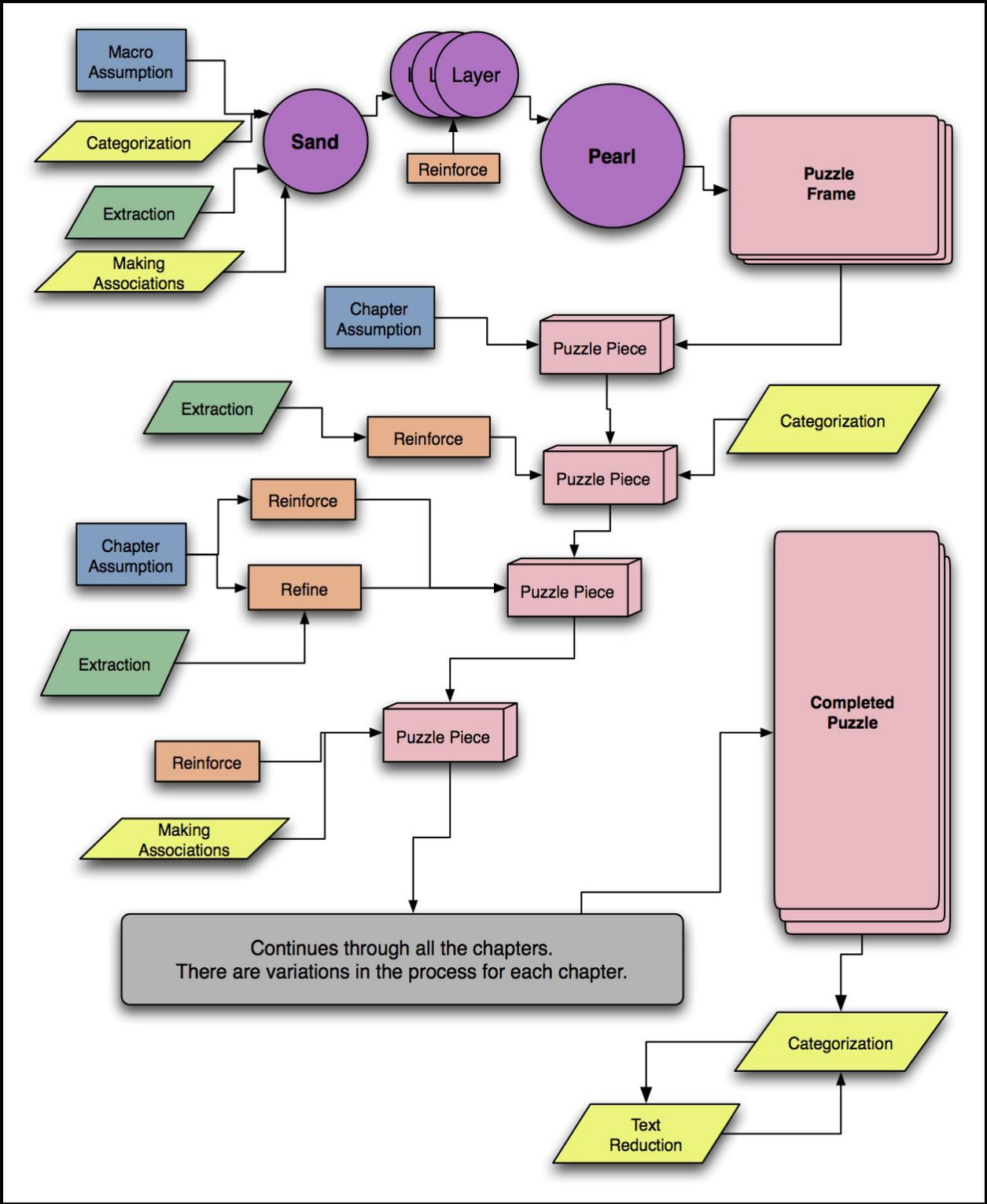


Figure 7.8: Chapter-Based Puzzle Building with Pearl-Grown Frame

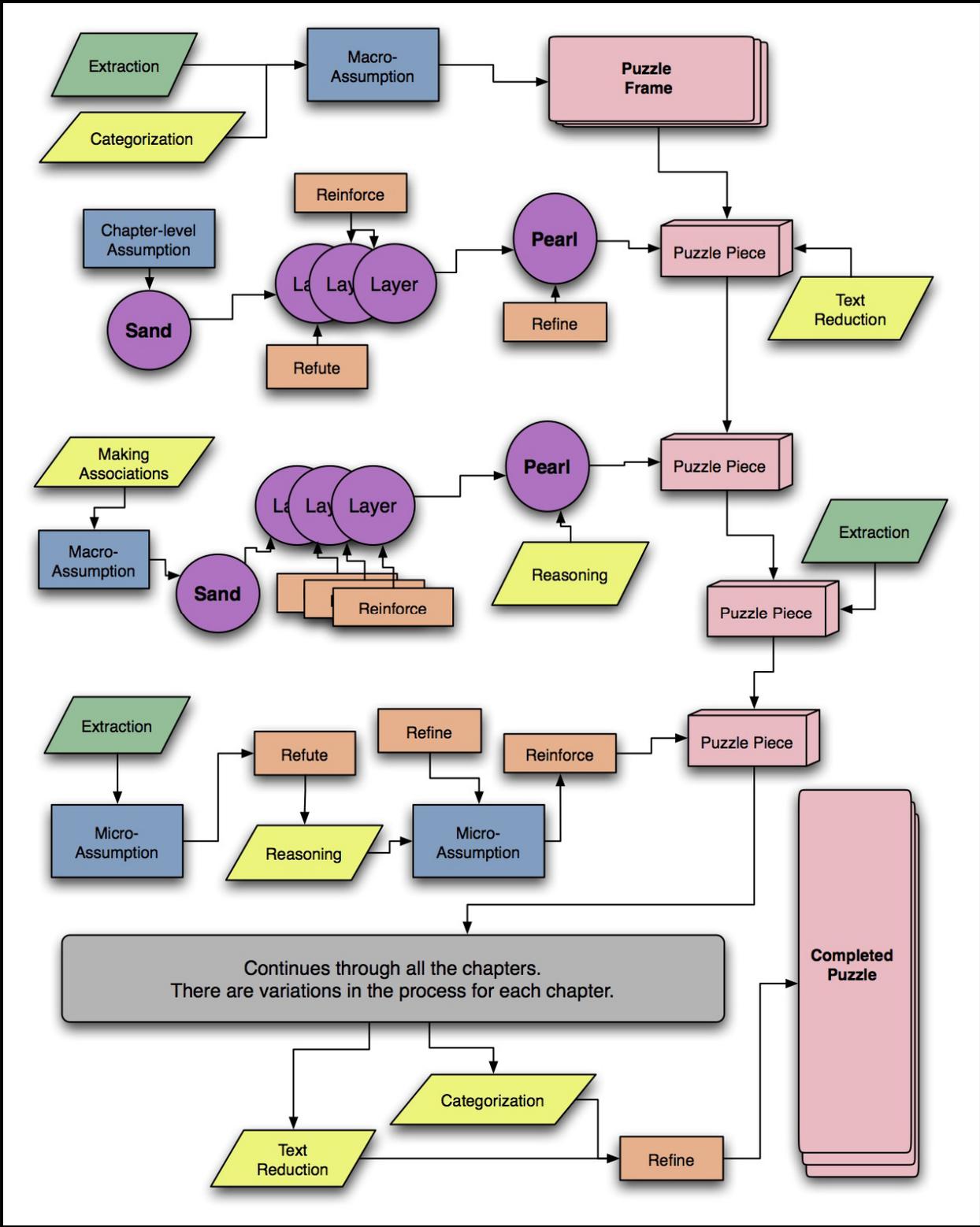


Figure 7.9: Chapter-Based Puzzle Building with Pearl-Grown Chapter Pieces

CHAPTER 8.0 SUMMARY AND CONCLUSION

8.1 SUMMARY

In this chapter, the study is summarized and the research questions are revisited. These questions are addressed by looking at the various components related to each question. Some final conclusions and recommendations are offered on the nature of determining aboutness and on the need for future research.

8.1.1 Research Purpose

Subject access to information is, has been, and most likely will remain one of the most difficult aspects of information organization and retrieval. For more than a century, the greatest minds of library and information science (LIS) have struggled with the complexities of subject access. In order to provide subject access to documents, a process known as subject analysis is performed. Williamson states that the subject analysis process is “one of the most complex and least understood aspects of bibliographic control.”³⁰⁰ While the LIS literature has been full of explorations on how to approach subject searching, the applications of controlled vocabulary,

³⁰⁰ Williamson, “Standards and Rules for Subject Analysis,” 157.

and issues related to classification, few in the field have investigated the foundations of subject analysis: the processes of aboutness determination. This study was an exploration into the most fundamental, and least understood, aspect of subject access to information. It was an investigation into the first step of the subject analysis process: the conceptual analysis.

This research was an attempt to better understand the processes involved in aboutness determination. The purpose of this research was to examine how conceptual analysis is performed by budding information professionals who have a vested interest in the LIS field, but who have not yet been exposed to the concepts and practices of information organization.³⁰¹ The objectives of this research were to understand better how those naïve information professionals approach the process of determining aboutness, what textual or bibliographic features are used to find key aboutness data, and what patterns become evident in the conceptual analysis process. It attempted to identify all of the basic components of aboutness determination.

The research was conducted to gain greater insight into aboutness determination in order to enhance the teaching of subject cataloging, to enhance workplace training of professionals and paraprofessionals in the subject analysis process, and to be used for building a structure that guides the conceptual analysis process. This investigation was the first component of a much larger research agenda to build a theoretically-sound, comprehensive, conceptual framework for subject access in the information professions to address not only the conceptual analysis process, but also the other steps involved in subject analysis. It was hoped that this research would provide greater insight into one of the foundations of subject cataloging and into the countless struggles associated with subject access.

³⁰¹ The study purposely avoided including professional catalogers and “average people” as participants in the study. They were not the populations of interest.

8.1.2 Research Questions

The research questions addressed in this study were:

- 1. How do participants determine the aboutness of an item? What activities are involved? What are the observable patterns in the aboutness determination process?**
- 2. What bibliographic, content, or visual features are key to the conceptual analysis process?**

The primary focus of this research was to explore how individuals determined the aboutness of documents. This research also examined the participants' conceptual analysis processes to investigate which types of bibliographic features, content characteristics, and visual cues were useful in determining aboutness. The research examined where participants sought important aboutness data. This examination of the processes involved in aboutness determination was conducted only with participants who had not yet been exposed to the concepts of information organization. Looking at how naïve, untrained participants approached conceptual analysis provided insights useful for developing an educational model of aboutness determination that will be included in the creation of a future conceptual framework for subject analysis to improve subject access to information. The answers to these research questions will strengthen our understanding of this practice.

8.1.3 Research Methodology

The focus of this dissertation research was an examination of the processes underlying the conceptual analysis of documents. Research concerns addressed in this study included: exploring and describing the nature of aboutness determination; identifying and describing patterns in the participants' processes; identifying the important content and visual cues to aboutness in

documents; and identifying the bibliographic features used to understand aboutness. Since the research questions were exploratory and descriptive in nature, qualitative methods were used.

In order to investigate the conceptual analysis process, twelve participants were recruited for a case study in which they were asked to analyze three books while being observed and tape-recorded. As aboutness determination is primarily an internal process, the participants were asked to verbalize their thoughts during the aboutness determination process. Participants received no training or instructions on how to determine aboutness, and no time-restrictions were placed on the participants' analyses. A two-hour time frame was suggested, but was never enforced. Once the participants had come to a conclusion regarding the item's aboutness, they wrote a statement describing their understanding of that aboutness. After observing each session, the researcher discussed the process with the each participant. An interview guide was used, but the semi-structured nature of the interviews allowed the researcher to ask questions based on observations and on participants' responses to previous questions. Data collection incorporated the use of think-aloud methods, in-depth interviews, and participant observation. Multiple data collection techniques were used for the purpose of triangulation. After the interviews, the researcher transcribed the recordings for analysis. This study generated data in the form of transcripts of the tape-recorded sessions and interviews, participants' written aboutness statements, and the researcher's field notes from the observations of the participants.

The research was conducted at the School of Information Sciences at the University of Pittsburgh, Pennsylvania. It was a convenient and logical site for the research study. The population under study was the naïve or inexperienced information professional. As future information professionals, LIS students were ideal subjects for this study. LIS students have some grounding in the discipline and a basic understanding of the importance of the organization

of information. While they have had some exposure to the discipline, they are also relatively uneducated in the practices of information organization. Given the potential for data overload inherent in qualitative research, the number of participants was limited to twelve in order to keep the amount of analyzable data manageable; the size was based on the similar structure of the study done by Šauperl.³⁰² Individual analysis sessions were held with each of the twelve participants over a six-week period. During these sessions, the participants had no access to computers, classification schemes, subject heading lists or indexes, the CIP information, or the book jacket and back cover summaries found on the items. The researcher began each session by reading written guidelines to the participant.

Each participant was asked to conduct a conceptual analysis of each of the three documents and to write aboutness statements describing the subjects of the documents. No detailed guidelines were provided for determining aboutness, and there were no limits placed on the length of the aboutness statements or on the number of concepts included in the conceptual analyses. All participants were instructed to determine aboutness in any way they chose. Each participant was instructed in the concept of exhaustivity so they understood the difference between depth indexing and summarization. Once the instructions were communicated, the participants performed the three conceptual analyses while using think-aloud methods, i.e., they spoke aloud what was going through their minds as they performed the tasks. After the conceptual analyses and the creation of the three aboutness statements, in-depth, semi-structured interviews were conducted.

Data analysis began in November 2004 after data collection was finished. The data collected were all in the forms of documents, and thus, qualitative document-analysis techniques were employed. The participants' transcripts and aboutness statements were examined using

³⁰² Šauperl, *Subject Determination during the Cataloging Process*.

content analysis techniques. QSR's N6 (NUD*IST) software for qualitative analysis was used to analyze and code the data. The researcher was searching for patterns among the participants' conceptual analysis methods and in the use of bibliographic and content features of the analyzed items. The coding scheme, initially developed from the June 2004 pilot study using induction, was refined as the data from the final study were examined. The coding scheme included concepts and approaches to aboutness that were observed in the study, but also concepts based on the LIS literature, primarily those of Ranganathan's facet analysis, textual approaches, use-based approaches, and the works of Wilson, Langridge, and Taylor. The researcher's field notes were used to help clarify the activities that were observed and to help clarify the transcripts when questions arose. Three rounds of data analysis were conducted between November 2004 and April 2005. From January 2005 until April 2005, the researcher searched for connections among the various components, modeled the individuals' processes, and developed the two final conceptual aboutness determination models. As the data were collected and interpreted, and the models were developed, the findings were shared with the participants. Their post-data-collection participation and feedback increased the internal validity of the analysis.

While this helped with the validity of the analysis, it must be noted that the results of this study reflect a case study approach. A particular group of naïve, budding information professionals was used in the study, and they examined one particular set of items with a particular set of properties and characteristics. This must be taken into account when considering the results. Perhaps if another group of LIS students (or even average persons) had been used, or if another set of items had been analyzed, the results might reflect or emphasize other activities, features, and processes. Further research is needed to examine this possibility.

8.2. FINDINGS

8.2.1 Research Question 1

How do participants determine the aboutness of an item? What activities are involved? What are the observable patterns in the aboutness determination process?

Aboutness determination is a multi-faceted, complex process that comprises multiple components. These components include: an overall conceptual model for aboutness determination; various operations and processes to find, understand, sort, evaluate, and manage aboutness data; various text examination methods; and various content examination strategies. To understand the process and to answer the research question, it is helpful to have an analogy for the process: Aboutness determination is research.

The entire aboutness determination process can be viewed as a form of research. It comprises elements of design and methodology, data collection, data analysis, interpretation, and the creation of a report based on the results of the process. The components in each are similar. The two conceptual models of aboutness determination (Pearl Growing and Puzzle Building) represent the research design. The participants' choice of model may reflect their ontological, epistemological, or methodological orientations and assumptions. The models describe the overall approach that the participants can use to conduct their research into aboutness. Their individual text, item, and content examination strategies (skimming, sampling, linear, two-ends, author's intent, uses of the documents, etc.) used to understand the aboutness are similar to research methodologies used to examine and understand a phenomenon. Similar to how triangulation can be important in choosing research methods, it is also important to use multiple strategies to examine the item, the text, and the content in determining aboutness.

The actual examination of the physical item, the bibliographic features, and the intellectual content—occurring during the input process—is the data collection phase of the research. The assumption-making process in conceptual analysis is like the construction of a hypothesis or research questions. A research question or a hypothesis is needed, but in aboutness determination, a hypothesis cannot be developed until there has been some exposure to the item, however briefly or superficially; this is similar to the inability to develop a viable hypothesis without being somewhat familiar with the literature or without some previous data collection. All good hypotheses need to be tested; the hypothesis testing takes place in the R³ processes (refining, refuting, and reinforcing), where the data encountered either supports or weakens the hypothesis. The equivalent to data analysis and quality control come in the forms of the sense-making activities (reasoning, finding context, interpreting, categorizing, etc.). Text reduction, especially summarization, is similar to the writing of the research report (the aboutness statement). The whole research process stops (at least temporarily), once the hypothesis has been well supported (not proven), or sometimes, completely rejected. This analogical overview points out the similarities between the two processes of research and aboutness determination.

All of the various aboutness determination components work in conjunction to create the means by which analysts determine the subject of an item. Because of the number of components in the process, no single, all encompassing, definitive model can be derived. Each participant had a different configuration of the components. Some consciously chose their actions and approaches, but most participants simply focused on performing the task at hand, and did not intentionally select or reject specific operations or activities. No participant stated, “I am now going to reduce this text into a manageable portion and use a category to describe it.” While some participants showed great insight into the aboutness determination process during their

interviews, most participants were unaware of the range of processes they performed to complete the task. In the following sections, the various factors related to how the participants performed aboutness determination will be addressed.

8.2.1.1 Aboutness Determination Models

The participants in the study used two distinct models to determine aboutness: Pearl Growing and Puzzle Building. They did this, however, without an archetype from which to work. They merely performed the tasks asked of them by the researcher, which were to examine three items and to describe what each item was about. The configuration of processes used by a single participant was not identical to the processes of any another participant; i.e., each participant's approach to determining aboutness was unique. Even among the three books that each participant analyzed, there were differences in how the task was approached, based on the differences in items' content, design, and structure. In other words, there is no single method for determining aboutness.

The researcher, while attempting to find similarities among the participants' processes, identified two patterns in aboutness determination, which were then shaped into two conceptual models. These models, Pearl Growing and Puzzle Building, are two constructs created by the researcher to organize an unstructured, complex progression of interconnected conscious and unconscious operations. These models are simple illustrations. They are based on metaphors that were created to describe what could not be summarized easily or concretely. They are the researcher's attempt to impose structure on a disorderly process. That being said, the researcher believes that the two conceptual models are useful for understanding how aboutness determination is performed.

As in most things, approaches to aboutness determination can be categorized in numerous ways. The researcher chose one characteristic with which to categorize the processes and to create the models. Other choices could have been made, but the researcher, in an attempt to apply the Canons of Differentiation and Relevance,³⁰³ chose the participants' data management styles as the primary characteristic of division. The participants' processes could have been divided into: building versus reducing processes, linear versus nonlinear examinations, or content-driven versus structure-driven processes; but the characteristic of division chosen by the researcher was based on whether the participants' aboutness determination processes were approached holistically or atomistically.

Pearl Growing, the model in which the participants take a holistic view of the item, is an evolutionary approach to determining aboutness. It entails the development of a rudimentary broad assumption of aboutness into a more detailed understanding of the item's content as layers of complexity are added. It involves the evolution and refinement of that initial perception. This approach to determining aboutness was observed in over two thirds of the participants, and used at the various levels of aboutness. Out of 36 total item examinations, Pearl Growing was used, in some capacity, in 29 (81%). It was the most frequently observed approach. This larger number stems from participants, who were primarily puzzle builders for the macro-level aboutness, using Pearl Growing to either create the puzzle's frame or to develop chapter-level puzzle pieces. In the cases where Pearl Growing was the primary method only, it was used in 23, or 64%, of the 36 examinations.

The other model, Puzzle Building, takes a more atomistic approach to aboutness determination; its focus is on determining the aboutness of discrete pieces of the text and then fitting them together to create an overall understanding of the item. It entails not so much

³⁰³ Ranganathan, *Prolegomena*, 145-148.

refining a central idea of aboutness, but discovering the separate pieces and determining how those pieces connect. While the understanding of aboutness in Pearl Growing occurs (or is at least expressed) concurrently with the discovery of aboutness data, Puzzle Building involves a postponed comprehension of the macro-level aboutness (or at least, a postponed expression of that understanding); i.e., in Puzzle Building, the pieces of aboutness data appear to be collected during the examination, but held until the end for them to be arranged and joined together. Puzzle Building was observed in 13, or 36% of the 36 examinations. Pearl growers did not use Puzzle Building as a supporting process in their examinations; it was used only as a primary approach to aboutness determination.

The best illustration of the differences between the two models of aboutness determination is a comparison of two aboutness statements written by a single participant using the different models for different items. Participant 10 conducted a linear examination of each item, but for *The Crazy Makers* she used Pearl Growing and for *The Death of Satan* she used Puzzle Building. Her aboutness statement for *The Crazy Makers* shows a synthesis of multiple concepts into one cohesive description of the item, reflecting a Pearl Growing approach. When she was examining the item, instead of making notes about the chapters as was often seen in Puzzle Building, she took notes that went beyond those boundaries:

- Quality of food
- Marketing industry
- Myths on health and nutrition
- Pseudo-foods
- Family dynamic
- Fear/scare tactic
- Clinical nutritionist
- Parental advice
- Recipes

These notes were then used to build her aboutness statement. Her final statement, however, was not an arrangement of the pieces found in Book Two, but was instead a statement that reflected her progressively more complex understanding of the item's aboutness; an understanding that had developed and evolved over the course of the entire examination.

The Crazy Makers by Carol Simontacchi discusses how our food choices are affecting our brains. The author points the finger at the food industry for marketing what she calls “pseudo-foods” to us, which in turn, are destroying our brain and leading to health problems. The target audience is parents, as it contains advice on what to buy and what not to buy, as well as containing recipes.

For *The Death of Satan*, in which she used Puzzle Building, her aboutness statement was a composite of discrete concepts fit together to create the larger picture. Her notes for Book Three are outlined below:

- National spiritual biography
- Role of the devil in people's actions
- Early America-presence, strong and descriptive
- 18th Century – Satan role diminished, disassociation: superstition, pride
- Shift in the use of the word evil, implications no longer about morals but marketing
- Relationship with God—making people be responsible/morals
- 19C commercial culture
- Emergence of chance and sin is irrelevant
- 20th C-Scapegoating
- Evil as the other versus evil as privation

Unlike her statement for *The Crazy Makers*, Participant 10's final aboutness statement for *The Death of Satan* was pieced together from her notes. It was less integrated; it more closely resembles a list than a cohesive whole. There is no synthesis of the concepts; no single idea has evolved.

The Death of Satan by Andrew Delbanco examines the role of Satan in American history and how the concept of “evil” has changed. In early American history, Satan's presence kept man moral. In the 18th Century the role of Satan diminished, and the word “evil” was simplified. The fear of Satan no longer kept people doing what they were supposed to. In the 19th Century, sin is irrelevant without fear of the devil and the belief in chance rules how people behave. In the

20th Century, without Satan, evil is a concept that can be manipulated. Evil is not embodied by one person, but becomes a concept, like communism.

These examples emphasize the differences in the two models. In *Puzzle Building*, the focus is on the final joining together of the atomistic concepts into a whole picture, while in *Pearl Growing* the emphasis is on a changing, evolving, and growing understanding of aboutness occurring holistically throughout the process. The researcher believes these conceptual models are useful for understanding how participants perform the tasks of aboutness determination, but others may disagree. There are numerous ways to categorize and illustrate aboutness determination; the researcher believes this one is the most instructive.

8.2.1.2 Processes and Operations

There are numerous interconnected processes and operations in aboutness determination. The researcher has categorized them into six major categories: the input process, assumption making, the R^3 processes, sense making, text reduction, and stopping. (See Figure 6.1 at the beginning of Chapter 6.) Aboutness determination begins with an input phase in which information is collected by encountering content in some form or manner (seeing, noticing, envisioning, etc.). This may occur through simple visual examination, more in-depth exploration of general content, or through seeking out specific desired pieces of information. Shortly after the input process begins, in some cases as early as viewing the cover, the participants begin a second process in which assumptions about the item's aboutness begin to be made. These assumptions may be about macro-level, micro-level, or chapter-level aboutness, or they may be about other characteristics of the item. These assumptions then undergo the R^3 processes, in which assumptions are refined, reinforced, and/or refuted. Concurrently with the input process, assumption making, and the R^3 processes, another set of processes—sense making—begins,

including: finding context, interpreting, comparing, and reasoning. During the determination of aboutness, and when aboutness is finally understood, text reduction plays an important role in the process of managing aboutness data. It allows the participants to reduce large masses of specific text into smaller, more manageable units of meaning. After the first moments of the input process, these four other sets of processes are performed simultaneously and continuously until an understanding of the item's aboutness is reached. The final process centers on how and when the participant decides to stop his or her examination of the item. This decision to stop may be based on one of several conditions, including: reaching the end of content perceived as novel or useful, finishing the book, giving up, and/or developing an understanding of the item's aboutness. These are the major operations and processes that occur during aboutness determination. Others exist, but are exhibited less frequently.

Of these six categories of operations and processes, not one is optional. They are all interconnected and vital to determining the aboutness of an item. The input process *must* occur; without it, there is no examination and no understanding. There must be some method or process of being exposed to the content. The input process can occur in various ways: it may be voluntary or involuntary; it may occur through the use of text examination techniques, such as skimming or reading; or, it may be viewed in terms of the purpose or method of input, such as accidental discovery, seeking specific information, or digging deeper into a concept. The input process is used to find the sand during Pearl Growing and the frame in Puzzle Building. It is also the foundation for the identification of layers and puzzle pieces in those approaches. But for the input data to become a layer or a puzzle piece, more operations and processes must be performed, especially those of assumption making and the R³ processes. Whatever the approach

to or the purpose of the input process, it occurs continuously through the participants' examinations of the items.

The second category of processes and operations, assumption making, is just as vital as the input process. Even though, at first glance, this process may appear optional, it is truly fundamental in aboutness determination. No matter which model fit a participant's approach, every participant made assumptions of macro-level aboutness, and most participants made assumptions of micro-level aboutness and assumptions about other characteristics of the items. This process seems to be as intrinsic to aboutness determination as the input process, interpretation, and other sense-making activities. The participants in the study indicated that even upon first seeing the cover of an item, they often made assumptions of the item's aboutness. It was not a conscious choice, but an instinctive reaction to the input of the cover information. Upon seeing the cover and the title, they could not help but to make an assumption; it is difficult to avoid developing an idea of what something is about, especially when that is the task at hand. Assumption making is inherent in determining aboutness; it is the hypothesis that must be constructed, and then rejected, refined, or reinforced. The data in the study show that the number and types of assumptions made by the participants may be related to the types of examination conducted and the overall model used. In general, the participants who conducted linear examinations and used Puzzle Building approaches tended to make more total assumptions and more chapter-level or micro-level aboutness assumptions. The participants who conducted two-ends or non-linear examinations and used Pearl Growing approaches tended to make fewer overall assumptions and more assumptions on the macro-level or about other characteristics of the item. This trend needs to be investigated further in future research.

The third category, the R-cubed (R^3) processes, is closely connected to assumption making. These processes of refining, reinforcing, and refuting help to authenticate, sharpen, reformulate, or overturn the participants' assumptions. Refuting was the least observed and the least observable of the R^3 processes. While participants made incorrect assumptions about the items, very few actually pinpointed the moment when those assumptions were refuted. Most participants simply refined their assumptions silently and moved on. The second of these processes, refining, is an important component of aboutness determination and appears at various points in the analysis. It is key in sharpening the aboutness assumptions; it helps to make them more specific and more in step with the item's content. It is also used, along with text reduction, to sharpen the final aboutness statement. In the terminology of Ranganathan, it is used in both the idea and the verbal planes. Reinforcing, the final R^3 process, helps the participant to strengthen, corroborate, or support his or her assumptions of aboutness. It was the most frequently observed of the R^3 processes, appearing in over 41% of the total text passages from the twelve think-aloud sessions; although there was a range of 23% to 64% among the individuals. A common pattern in the aboutness determination models was:

Assumption—reinforcement—reinforcement—reinforcement
Assumption—reinforcement—reinforcement—reinforcement

This was a recurring pattern, and the repetition appears to be quite important to the process. Without the repeated reinforcement, the participants cannot be sure their assumptions are correct.

The fourth category of operations and processes contains the activities related to sense making. This is a set of activities that, unsurprisingly, helps the participant to make sense of the content that he or she is analyzing. The sense-making processes comprise reasoning, finding context, interpreting, reviewing, categorizing, and making associations. All have significant roles to play, despite their relatively infrequent appearances in the participants' transcripts. Due to the

nature of some of these processes, explicit references to them are unlikely, since they are conducted on an unconscious level and some are not as observable as others. While participants explicitly made comparisons between the items they were analyzing and other books or events with which they were familiar, few were able to express logical thinking processes plainly. Reasoning and interpreting are not so much conscious actions, but are instead cognitive processes that few can avoid or describe. They are attempts by the analyst to figure out meaning. They, as well as finding context, appeared relatively infrequently as separate, explicitly identified activities, but they are still essential elements in aboutness determination. Many of the participants' other activities and processes, such as making associations and categorizing, were conducted in order to provide context, to interpret the text, and to figure out what was meant. The sense-making activities, like the R³ processes, are supporting operations that ensure that a more complete understanding of the aboutness is achieved.

Text reduction, the fifth category of process and operations, was used by all of the participants in aboutness determination. Text reduction comprises three related activities: summarizing, note taking, and extracting. Beghtol writes that text reduction is a possible model for aboutness determination.³⁰⁴ Beghtol is right that text reduction is involved in aboutness determination, but it is only a single component in a much larger process. And, it is rarely used in the way that Beghtol and others describe it: as a process based on text comprehension models. An approach based on the text-comprehension form of text reduction, i.e., the notion of controlled forgetting, is impracticable. Participants 8 and 12 were the only participants to address text reduction in this way, and only Participant 8 had a well-developed and finely tuned ability to reduce a mass of text into more manageable and memorable portions; the other participants

³⁰⁴ Beghtol, "Bibliographic Classification Theory and Text Linguistics," 89-90.

performed this type of text reduction only unconsciously. Each participant in the study did use some tangible form of text reduction, usually in the form of note taking, extraction, or summarization. It is unsurprising that text-reduction processes appeared frequently in the transcripts since the participants were required to write an aboutness summary at the end of their examinations as part of the study's design. Still, text reduction plays an important role, whether a summary is dictated or not.

The sixth category comprises descriptions of how or why the participants stopped the aboutness determination process. While important, little of interest can be said about them, except that one approach to stopping the process appears to be related to a particular text examination strategy. Participants using a linear approach tended to stop the process when they reached the end of the text, whether they already understood the aboutness from much earlier in the process or whether they were still unclear about the content.

The processes and operations in the six categories are all critical in determining aboutness. All twelve participants conducted activities in each of the six categories. Each category was important and none could or should be omitted when approaching the conceptual analysis task. Other activities and processes were observed during the participants' examinations. Those described in the study, however, were the ones most regularly observed by the researcher, most frequently described by the participants, or were, in some way, deemed important by the researcher.

8.2.1.3 Item and Text Examination Strategies

During this research, all twelve of the participants stated, at some point, that they felt like they knew what to do in order to find the aboutness of the items. While there were instances, particularly with *The Death of Satan*, where some participants said that they did not know what

to do, in general, the participants felt comfortable with the process of examining the text and the items and had appropriate strategies for completing those tasks. The strategies identified in this research include five strategies for examining the text and three strategies for examining the physical items. The approaches to examining the text included: skimming, sampling, reading, word mining, and flipping. The strategies for examining the physical items included: linear, two-ends, and non-linear approaches. Each of these eight strategies was successfully used by one or more of the participants.

It appears that the conventional wisdom that one is to skim the text to determine aboutness, found in cataloging textbooks and in the LIS literature, is indeed warranted. The participants determined that skimming was the most useful approach to text examination. All twelve participants used skimming heavily. All twelve participants also used text sampling in their examinations, but only intermittently. Only Participant 7 used all five of the text examination strategies, and only three of the participants attempted to read more than one consecutive paragraph in the texts.

Of the twelve participants, only Participant 3 used all three of the item examination strategies: linear, two-ends, and non-linear approaches. Eight participants used the same item examination strategy for all three items and three participants used two strategies. The front-to-back linear approach was the most frequently observed strategy, with 18, or 50%, of the 36 examinations being conducted in this manner. Based on the nature of the content, on the structure of the text, and on personal preferences, the participants in this study used various combinations of these text and item examination strategies to determine aboutness. No single configuration of these strategies appears to be universal, nor necessary.

8.2.1.4 Content Examination Strategies

While the participants used numerous combinations of text and item examination strategies to complete the tasks, they were more unified in their approaches to content examination. Of the possible approaches to content examination, the participants chose three as useful. The others were not frequently observed, nor at times, were they even considered by the participants. The three most commonly used strategies were Wilson's first three approaches to aboutness determination: the purposive method, the objective method, and the figure-ground method. Sparingly used, or rejected entirely, were a number of approaches that have been suggested by scholars in the LIS literature, including: the rules of selection and rejection, text-based approaches, category-based approaches, use-based approaches, and rheme-based approaches to determining aboutness. Another set of participants or a set of another type of participant (such as trained catalogers) might have used some of these other strategies.

The author's intent, word and concept frequency, and what stood out were the three approaches the participants consciously chose to use to determine the aboutness of the items. Having never read Wilson, their approaches stemmed strictly from their experiences and instincts. When asked how they performed the analysis of the content, all twelve participants mentioned the author's intent. Two participants said that they had considered it, but it was not their major focus in determining aboutness. Ten, however, were very concerned about determining why the authors' wrote their books. They spoke of intent, purpose, reason, thesis, and attempts to determine what the author was "trying to do," "talking about," or "getting at." Five participants attempted to find a statement written by the author to state his or her purpose in writing the book; they referred to this as an "about statement," "thesis statement," or a "This book is about..." statement. The major problem the participants encountered was the multiple statements of purpose found in *The Death of Satan*. If one's primary approach to determining the

aboutness is by identifying the author's statement of purpose, difficulty should be expected when the author has several purposes, or states his or her purpose more than once, each time with different wording. The other five participants attempted to decipher for themselves the author's intent or purpose. This, too, can be problematic when the author has multiple purposes or is not clear about why the book was written. It can also be difficult if the work's argument is abstract, cerebral, and/or complex. The latter approach, deciphering the author's purpose, evokes the interpretive nature of aboutness determination. All of the participants were able to easily determine the authors' purposes in writing the two popular culture works, but were unsure of the author's purpose in the more scholarly work, *The Death of Satan*. Their understandings of the aboutness of the third item varied considerably more than their interpretations of the first two books.

While it was not accepted as a major method for determining the aboutness of the items, all twelve participants used Wilson's objective approach. The participants were primarily concerned with word frequency. Although they did not objectively count frequently seen words or monitor the frequency of concepts, they did develop vague notions of the most frequently mentioned ideas. It was difficult for the participants not to see the words, "politics," "brains," and "Satan," splashed all over the pages of the three items. These concepts were what the participants noticed. While Participant 3 noted that the analyst should not be content with simply the broad concepts that are repeated continuously through the texts, few of the other participants mentioned the need to determine sub-topics and relationships among concepts. Participant 8, in order to determine which concepts appear most frequently in the items, consulted the indexes. He was the only participant to do so. Two other participants pointed out that while the index entries might provide a rough idea of the relative frequency of the concepts, the concepts in the indexes

are presented without context, and are, therefore, of limited usefulness. Other participants pointed out that issues of word or concept frequency are related to the figure-ground method, i.e., what stood out to them, and were unsure if they were aware of concept frequency because they already had an idea of the aboutness, or if they developed a sense of aboutness from the word or concept frequency. If the objective approach is affected by what stands out to the analyst, then perhaps, the objective approach is not that objective after all. While this was not a major method of determining aboutness, it was very helpful in reinforcing the participants' assumptions of aboutness.

The final approach embraced by the participants was Wilson's figure-ground method. Eleven of the twelve participants looked for information that stood out in the works. What stood out to the participants? Most often, what stood out was related to whatever had been described in the title or introduction, or whatever the participants had already assumed the items were about. Concepts that reflected the participants' already developed assumptions of aboutness were noticed six times more frequently than were the second largest category of concepts: proper names. Other categories of what stood out included concepts reflecting: personal interests or personal knowledge, places, quotations, pop culture references, typographical emphasis, dates/times, titles of works, statistics/numbers, and unfamiliar words. This approach, too, evokes the interpretative nature of the aboutness determination process. This was particularly apparent when a participant stated, "What I was looking for was stuff that was interesting to me." Other participants made similar statements. It is important to note that among the categories of information that stood out were: dates, places, and names; concepts that are included by Ranganathan and Taylor in their approaches to aboutness. The participants did not appear to

notice concepts in Ranganathan's categories of material or energy; the participants did not think in terms of these categories at all.

The participants firmly rejected some of the other strategies from the LIS literature by either using them infrequently or by stating that they were not approaches they had considered or they would consider. These included the use-based approaches described by Hjørland, Soergel, Maron, and others. The participants simply did not approach aboutness in this way. They did not consider how the documents were to be used, what questions the documents would answer, or how someone would search for the documents. They did not use Hutchins's rheme-based approach; a finding that would not surprise Hutchins, who understood that his ideas of theme and rheme would have no real impact on indexing.³⁰⁵ The text-reduction approach to aboutness described by Beghtol is involved in aboutness determination, but only as one operation in a much larger process.³⁰⁶ As a stand-alone method, it is unfeasible. The participants did not embrace Wilson's rules of selection and rejection either. While some participants stated that they were interested in what held the work together and others were interested in seeing if information was omitted by the author, Wilson's fourth approach is not a practicable approach to macro-level aboutness determination; but then, Wilson knew this. The participants also did not use approaches based on categories similar to the fundamental categories described by Ranganathan and the basic facets described by the CRG.³⁰⁷ Participants simply did not think this way either. When asked about the role of categories in their processes, not one of the participants could relate to the concept. While categories of concepts were identified by the researcher, particularly

³⁰⁵ Hutchins, "The Concept of 'Aboutness' in Subject Indexing," 181.

³⁰⁶ Beghtol, "Bibliographic Classification Theory and Text Linguistics," 89-90.

³⁰⁷ Ranganathan, *Prolegomena to Library Classification*, 339-341; Classification Research Group, "The Need for a Faceted Classification," 164-5.

in terms of what stood out, participants did not consciously seek out information of a particular type or in a particular category.

Because of the interpretive nature of all of the processes that the participants used (and those that they did not use), it is recommended that each content examination strategy should be used in conjunction with other strategies. Wilson was accurate when he stated that each of the approaches that he described was *a* method, and not *the* method, to analyze aboutness. No one approach to the content was observed in isolation, nor should they be used in isolation. Similar to conducting good qualitative research, the content examination strategies need be triangulated. Getting as many perspectives as possible on the items is the best strategy for determining aboutness.

8.2.2 Research Question 2

What bibliographic, content, or visual features are key to the conceptual analysis process?

For this question, the bibliographic, content, and visual features important in the conceptual analysis process were investigated. Their use and impact are discussed in the following sections.

8.2.2.1 Bibliographic Features

Bibliographic features have been the primary focus of most LIS literature when attempting to explain the process of determining aboutness. Most textbooks offer a structural approach. Taylor, Chan, and five others provide lists of useful bibliographic features to examine. Sometimes an author offers additional advice or a list of concepts to pay attention to, but generally the focus is on the bibliographic features. In Table 8.1, the bibliographic features most frequently mentioned in representative, modern cataloging textbooks, articles, and other documents are listed in

descending order of frequency.³⁰⁸ The participants' uses of these bibliographic features are detailed in Table 8.2.

Table 8.1: Useful Bibliographic Features

<i>Bibliographic Features</i>	<i>Authors Recommending the Features</i>
Title/Subtitle	All (Bellardo, Chan, Curley, ISO, Langridge, Olson, Taylor)
Introduction or equivalent	All
Table of contents/Chapter headings	Chan, Curley, ISO, Langridge, Olson, Taylor
Abstract/Blurb	Bellardo, Chan, ISO, Olson, Taylor
Index	Chan, Olson, Taylor
Conclusions	Bellardo, ISO
First sentences/phrases	Bellardo, ISO
Jacket/Back Cover	Chan, Langridge
Bibliographic references	Olson
Section headings	Olson

Table 8.2: Participants' Use of the Bibliographic Features

<i>Bibliographic Features</i>	<i>Number of Authors Listing these Features</i>	<i>Number of Study Participants Stating these Features were Useful</i>
Table of contents/Chapter headings	6	12
Conclusions	2	12
First sentences/phrases	2	12
Section headings	1	12
Title/Subtitle	7	11
Introduction or equivalent	7	11
Abstract/Blurb	5	11
Jacket/Back Cover	2	11
Bibliographic references	1	2
Index	3	1

³⁰⁸ The textbooks include Bellardo's *Subject Indexing*, Chan's *Introduction to Cataloging and Classification*, Curley's *Akers' Simple Library Cataloging*, ISO's *Documentation—Methods for Examining Documents*, Olson's *Subject Analysis in Online Catalogs*, Langridge's *Subject Analysis*, and Taylor's *Organization of Information*.

The bibliographic features listed in Tables 8.1 and 8.2 include nearly all of the features that the study's participants considered to be important in the aboutness determination process, although there are some discrepancies. Nearly all of the participants used the titles and subtitles, the introductions, the tables of contents, and the abstracts or blurbs.³⁰⁹ Those particular items were included in five or more of the lists and used by over 90% of the participants. The participants, however, disagreed about the usefulness of the index; only one participant in the study used the index and none of the others thought it would help them in the process. The participants agreed that first sentences, conclusions, and book jackets³¹⁰ are useful, but these are mentioned in only two of the seven lists sampled. A major disagreement between the lists and the participants in the study is the use of section headings. This bibliographic feature was extremely popular among the participants, but is included only by Olson. Only two participants used bibliographic references, which were mentioned in only one list. That seems to indicate a general agreement that the references are not that helpful. The only items that the participants would add to these lists are first and last paragraphs/sections in the chapters. The participants found a great deal of helpful aboutness data in these sources. One or two participants might include the acknowledgements or dedications, but these cannot be described as useful in all cases. The participants used varying configurations of the bibliographic features in their approach to the aboutness determination process.

³⁰⁹ These were chapter-level abstracts and blurbs. There were no macro-level abstracts.

³¹⁰ Even though the back covers were blacked out and the book jackets were removed, eleven participants tried to look at them.

8.2.2.2 Content Features

Traditionally, in the LIS literature, greater emphasis has been placed on the bibliographic features of a published item, rather than on characteristics of the content. The literature has emphasized locations in which the aboutness data may be found, rather on attributes of the intellectual content. The participants in the study, however, found certain content characteristics to be valuable in understanding the aboutness of the items they analyzed. These included: validity or truthfulness, point of view, language and tone, intellectual level, author's background, audience, the structure of the content, and form of thought. The number of participants concerned with each is listed in Table 5.1.

The validity, or truthfulness, of the content is rarely discussed in the LIS literature of aboutness. Traditionally, an evaluation of the truthfulness or the legitimacy of a work has not been part of the subject analysis process. Issues of truthfulness or validity are often addressed in connection with collection development activities and rarely reach the cataloging stage; any questions of this nature may often be resolved before reaching the cataloger. Is there a place for this type of evaluation in the subject analysis process? The untrained, naïve participants in this study seemed to think so, which may be a reflection of their inexperience in the LIS field. Nine of the twelve participants expressed concern over questions of validity (or facts versus opinions) for at least one of the three books. In some cases, it was simply a matter of the participant wishing to identify the author's research methodology, i.e., how did the author arrive at his or her conclusion or how does the author support his or her arguments. In other cases, the participant was fixated on pointing out the flaws in and/or the ridiculousness of the author's arguments. In cases where a participant had profound philosophical differences with an author, the legitimacy of the book was sometimes called into question. This issue of validity fits poorly with the profession's stated value of neutrality. Like objectivity, however, neutrality is relative,

subjective, and not as easy to uphold as one might like. While the researcher does not endorse the inclusion of value judgments of the quality or the validity of the work in the conceptual analysis process, it is important to note that questions of validity may arise, and may distract the analyst from his or her purpose. Related to this issue are the participants' concerns with the author's background and the author's point of view.

Ten participants were concerned with the author's background. This was most often directed toward the author's education, discipline, and qualifications for writing the book. This is directly related to the validity of the content, i.e., whether the author was qualified to write a book on the subject or whether the author had any credibility. This issue arose primarily with *The Crazy Makers*, which dealt with scientific issues from a popular culture point of view. The author was a nutritionist, but this was not clearly stated in the text. The other books in the study also did not readily reveal the backgrounds or disciplines of their authors, but these concerns were not as prevalent with the other items. This difference raises questions of whether there are specific discipline-based considerations that should be addressed in the aboutness determination process. Do books of a scientific nature require more evaluation of the author's qualifications or more interest in the discipline of the author? This is another area for future investigation.

Point of view is occasionally included in discussions of aboutness determination. Swift, Langridge, Taylor, and Weinberg have all mentioned it in their discussions of aboutness. Eleven of the participants were concerned about this characteristic, some quite ardently. At times, participants were distracted from the task at hand in attempts to identify the author's perspective or point of view. They, however, stated that this characteristic was important to understanding the nature of the content. It provides context in which the aboutness can be determined; but when the analyst disagrees with or is offended by the author's point of view, difficulties can occur. In

these cases, the analyst may discount the author's arguments, and this is where issues of validity and truthfulness can arise. While point of view can be helpful in understanding the context of the work, it, like questions of validity, can misdirect the analyst's time and energy.

Audience, a characteristic mentioned by Langridge, was another major concern for eleven participants in the study. The first item that the participants analyzed, however, may have caused this concern. *We've Got Issues* was written for a particular audience. The participants' early exposure to this item may have caused their awareness of the issue, rather than it coming from a purely organic interest in the content characteristic. The participants, however, felt it was an important component to the aboutness of at least one item. While audiences might have been identified for the other two books, only one participant included audience in their aboutness statement for a work other than *We've Got Issues*. When asked why they would include audience for one item and not the others, the participants made a distinction between identifying *the* audience from identifying *an* audience for a book. When a book was explicitly written for one particular audience, the participants felt it may be included in the description of the work, but when the audience was not self-evident, it was not important to include the concept. Some participants who determined *the* audience for *We've Got Issues* decided against including it in their aboutness statements, feeling that the concept of audience did not truly reflect the aboutness of the work. Most others, however, felt it was key to the aboutness.

Language, tone, and intellectual level, addressed in the LIS literature by Langridge, were concepts that most of the participants addressed in their examinations. These concepts are related to another concern of the participants: audience. While the participants stated that these characteristics did not assist them in determining the actual topics of the works, they provided additional context for the work, and helped them to understand for whom the work was written.

The language and tone can indicate if the work was written for a popular or an academic audience, a particular age group, or a particular discipline. The language, tone, and intellectual level can also affect the analyst's ability to navigate efficiently through the item to collect aboutness data. The participants in the study have shown that with more complex arguments and more scholarly writing, the analyst may need additional time to study the item, and/or a larger portion of the item may need to be examined. The examination strategies may also need to be adjusted, i.e., the participant may switch from Pearl Growing to Puzzle Building or from a non-linear to a linear approach; or perhaps, more passages of the text may need to be read or sampled instead of just being skimmed.

Another issue related to intellectual level that might arise is that the analyst, in some cases, may simply be incapable of understanding a complex, highly technical, or theoretical item. In the study, some participants were unable to decipher the multifaceted, scholarly text of *The Death of Satan*. In some cases, the analyst may not be able to determine the aboutness, no matter how they approach the item. The converse situation might also cause difficulties. With works of a popular nature, written in informal language and with a humorous or sardonic tone, there is also a chance that the analyst may be repelled or annoyed by the book and/or disregard its worth, again raising questions of validity, and distracting the analyst from his or her task.

Due to the nature of the items analyzed few participants addressed issues related to traditional genre categories, but all of the participants expressed interest in the organization of the content and the form of thought. Two of the three books were organized by chronology. In *The Death of Satan*, it was not immediately obvious, but the chapters were arranged by time periods in American history. Few participants were able to decipher this, but several tried to find the organizing principle for the text. More obvious was the structure of *The Crazy Makers*, which

was based on stages of human development. The participants found that an understanding of the structure of the content provided context for the aboutness determination process. It helped them navigate the text and determine the aboutness more easily. Conversely, the participants in the study showed that when the content has a less obvious structure, i.e., fewer chapters, fewer or no section headings, and/or ambiguous chapter and section titles, the more difficult it is to analyze the item. With a less explicit structure and/or fewer organizational features, the analysis may take more time and there is more chance that the analyst can get lost in or overwhelmed by the text; as a result, the analyst may need to adapt his or her examination strategies in response to the difficulty.

The form of thought, described by Langridge, was another content characteristic of concern among the participants. All twelve participants attempted to identify forms of thought or types of writing found in the items. It was the participants' attempt to identify not only what the work was about, but to answer Langridge's question: "What is it?" Some used broad categories, such as the forms of knowledge, to answer the question, e.g., *history* and *philosophy*; others used forms of writing such as *satire* or *commentary*. Other participants used form of content on a finer level of granularity, identifying particular pieces of content as *statistics* or *recipes*. Depending on the level of granularity at which form of thought was used, and on the complexity of the participant's understanding of the aboutness, these characteristics may or may not appear in the final aboutness statements.

Of the content characteristics addressed in the study and the LIS literature, few were actually included in the final aboutness descriptions created by the participants. Two participants included issues of validity in one of their aboutness statements, but otherwise that characteristic was infrequently observed in the final descriptions. Point of view, language, tone, and

intellectual level were infrequently included in the aboutness statements as well. The only characteristics regularly included were form of thought and audience. Even when questions about an author's background were answered in terms of a discipline, it was rarely included in the final description of the aboutness. The characteristics, however, are helpful, especially in the provision of context. It appears that content characteristic may be helpful in the subject determination process, but may have little place when it comes to subject indication.

8.2.2.3 Visual Features

In general, the participants had ambivalent feelings toward the visual features found in the items. Most of the participants expressed some appreciation for the cover art, the design of the items, and the internal illustrations and photographs. Some stated that they simply enjoyed seeing these features, while a few proclaimed that they were *somewhat* helpful. None, however, stated that illustrations or photographs assisted them in understanding the aboutness of the three items. Where visual features were most helpful was in understanding auxiliary concepts related to the aboutness, such as: audience, tone, and intellectual level.

Some participants stated that they felt the items' covers were helpful in determining the age of the content, but quickly realized that visual information can be misleading, as in the case of the retro cover of *We've Got Issues*. While some found the cover to be misleading regarding the book's age, others felt that they were able to get a good sense of the author's tone and approach from the design. The participants used the cover art in establishing their first assumptions of aboutness.

The participants did not find the photographs and illustrations helpful in determining aboutness, but found that they could use them to determine the audience for *We've Got Issues*. Differentiating between the types of visual features included in the three books often assisted the

participants in determining the tone of the book. The frequent photographs, sassy captions, and the retro cover of *We've Got Issues* were indicators of the sarcastic tone and the “hip and trendy” approach of the author. The lack of illustrations and the presence of charts and tables in *The Crazy Makers* were seen by some to be indicators of the work’s more serious and earnest nature. They noticed that the few illustrations contained in *The Death of Satan* were generally of a more sophisticated nature, with works of art, woodcut drawings, prints, and *New Yorker*-style cartoons from the time periods covered in the chapters they fronted. These were a “better class of illustration” befitting a more scholarly work. Some participants recognized that the images in *The Death of Satan* were used to illustrate the progression of time that was reflected in the chapters. While this was recognized, it was only moderately helpful. The number of illustrations and their placement throughout the text was seen by some participants as a way to judge the intellectual level of the text. The more illustrations and photographs found, especially when they were scattered throughout the text, the more the item appeared to be of a popular nature; fewer illustrations and photographs were associated with more scholarly works, particularly when the illustrations and photographs were placed sparingly throughout the item, and were not found among the large blocks of texts.

While typographical features such as the use bold text, italics, and font size are designed to grab one’s attention, the substance of what is being highlighted is not always important. It may simply be a “visual distracter.” Features such as poems, inset quotes, and white space, etc., may be eye-catching, but the substance is often less pertinent than what is found in the monotonous, unbroken blocks of text. Eleven of the twelve participants found numerous instances where their eyes went to content that was completely unimportant in the aboutness determination process. In the interview sessions, ten participants expressed caution on using photographs and illustrations

and other visual features to determine the aboutness of the items; they stated that they felt that visual information was often misleading. The participants found that for aboutness determination, the visual features were not very helpful, but they still played a role in simply breaking up the text, entertaining the analyst, and providing helpful data about the tone, intellectual level, and the audience. The researcher observed that when the items were visually monotonous, any visual feature included (e.g., illustrations or tables) caught the attention of the participants. It also was observed that if the text was more academic in its language, struggling participants tried to find other features in the book to assist them with their understanding of the aboutness, including the photographs, illustrations, etc. In other words, when the text was more complex, the participants depended on other non-textual features. Ultimately the importance of the visual features depends on the individual analyst, the content of the item, and the content of the visual features. In some items (or in some types of items, e.g., art books), visual elements may be helpful, but in others, they may not.

8.2.3 Conclusions

This research constructs two conceptual models to help understand the process of determining aboutness. As stated in the beginning of this chapter, the process is similar to a form of scientific inquiry. There are stages of research design and methodology, data collection, data analysis, interpretation, and the creation of a final report. The aboutness determination process is a multi-faceted one in which an analyst employs a number of interrelated components to understand the aboutness of an item. The components include: aboutness determination models; conscious and unconscious processes and operations, such as assumption making, reinforcing, refining, text reduction, and sense making activities; content, item, and text examination strategies; and the

various content, bibliographic, and visual features that make up the information package. The components of aboutness determination are illustrated in Figure 8.1.

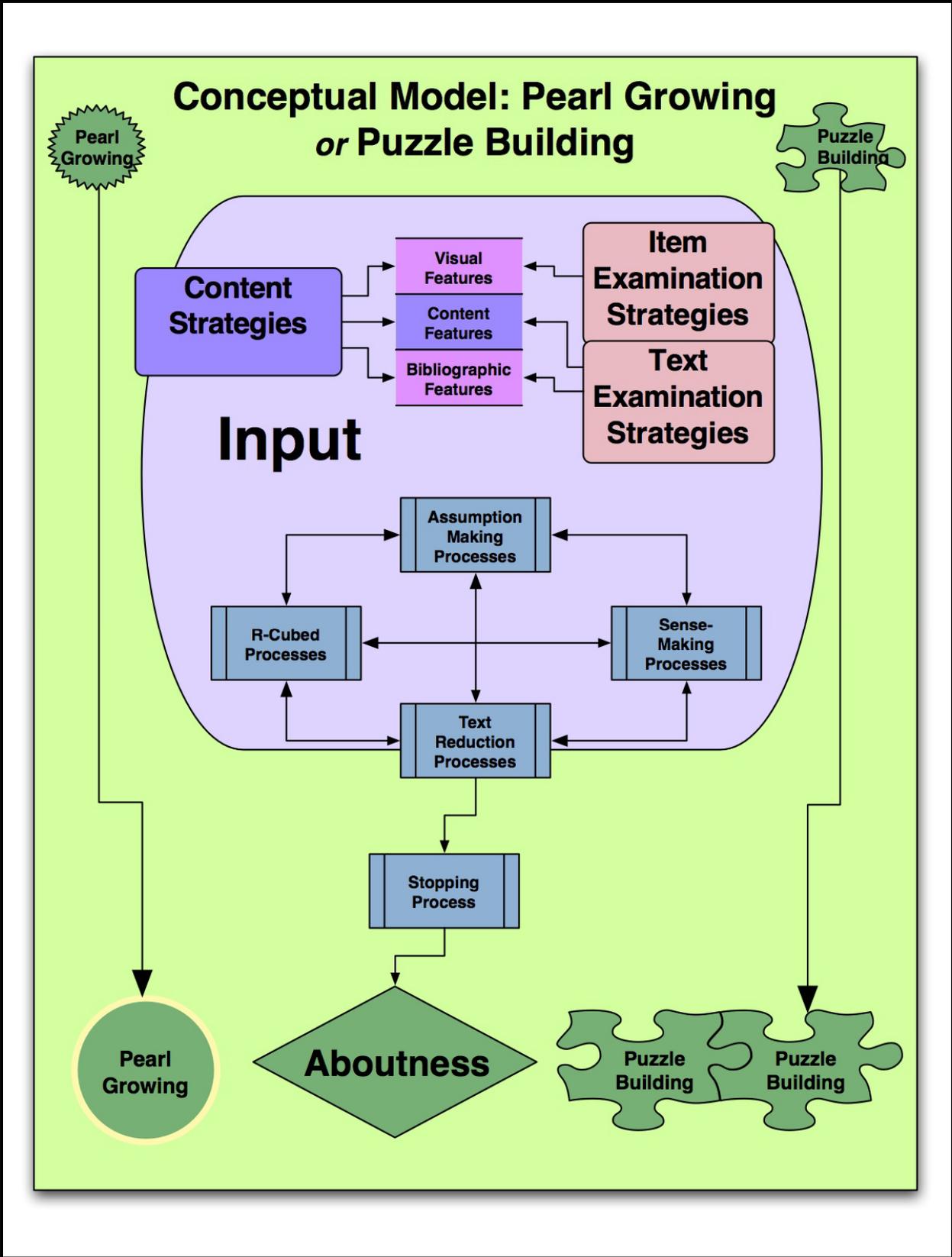


Figure 8.1: Components in Aboutness Determination

Figure 8.1 groups related activities together, many of which are part of the first process: the input process. Data input occurs through an examination of the strings of text and images through skimming, sampling, and other text examination strategies. These are performed in the context of the examination of the entire item, which is executed using in a linear, two-ends, or a non-linear strategy. The item's content, bibliographic, and visual features are sources of aboutness data. The bibliographic features important to the aboutness include: titles, subtitles, tables of contents, introductions, section headings, first and last sentences, first and last sections, and conclusions. To determine the aboutness of the work, analysts commonly scan these bibliographic features using one of the item examination strategies. The content features of interest to the participants include: audience, validity, point of view, language, tone, intellectual level, author's background, structure of the content, form of thought and perhaps, genre. The participants found these features were helpful in the process of aboutness determination, but generally did not include them in their descriptions of aboutness. The participants in the study were not sure that the visual features they encountered in the items were helpful at all. While they looked at cover art, internal visual elements, typographical conventions, and page layout, none thought that these elements were particularly helpful. This, however, may be related to the items that were analyzed in this study. Future investigations are needed to investigate the importance of visual features.

Content examination strategies, such as the purposive method and the figure-ground method, may be employed in the participant's attempts to find useful aboutness data. During the input phase, both the physical item and the intellectual content are inspected. As data continue to be gathered, additional operations begin, including assumption making, the R³ processes, and a range of sense-making activities. How those collected data are managed depends upon the overall model of the aboutness determination process that is instinctive or feels natural to the

participant. It may be an atomistic or a holistic approach. If the analyst's process is holistic, the aboutness data begin to accumulate and additional information is added onto the established assumptions of the aboutness; if the analyst approaches it atomistically, then the pieces are held in reserve as further information is collected. As the data are input, all of the interrelated processes help the participant to manage, sort, and interpret the data. Upon collecting enough data, the analyst must then reduce that mass of details into a manageable statement describing the aboutness of the information package. That macro-proposition is the aboutness of the item. Once the participant's summarization is complete, the analyst stops.

This is a simplified model of how aboutness determination is performed. In reality, the features, strategies, processes, models, and final understanding are so intertwined that a single model cannot be designed to provide an ordered sequence of the steps. While the participants displayed consistencies in how they approached the items, the sequencing of steps, operations, and the use of features varied from item to item, and from participant to participant; they used varying configurations of the components in aboutness determination to create their own approach to the process. This was appropriate because of the variations among the participants themselves and in the nature of the items that were examined. Some participants used features such as the acknowledgements and the dedications to understand the items, while others found nothing of interest in those features. Each participant used his or her own mix of structural, content, and item examination strategies to conduct the analyses. Most gave no real thought to how these processes, strategies, and features were combined to create a viable approach to aboutness determination. Most could not tease the components apart, and simply performed the tasks at hand. Aboutness determination requires a balance of these components to be successful.

One participant in this study considered his overall approach and found it somewhat inefficient.

Participant 8 stated:

I spent more time on what I would define as the content, just skimming through the books and the chapters to see what they say. I am not sure that I got as much helpful information from the actual content as I did from the index, the chapter headings, some of the insets, and chapter blurbs or descriptions. I guess, given another item to look at, if I had a more limited time frame, I would focus more on the external aspects [bibliographic structures], rather than the content itself. With the time I had today, I could go through and skim to make sure that the content backs up what the chapter headings were saying.

In his next analyses, if he were to do this again, his adjusted approach might or might not be better. Currently, analysts instinctively adjust their approaches through trial and error; but with the identification and categorization of these components in this research, and through further research into aboutness determination, analysts may be able to consciously find and choose the models, processes and operations, text examination strategies, content examination strategies, bibliographic features, and content features that are most appropriate, useful, and efficient.

8.3 CONTRIBUTIONS

This research was an attempt to discover how humans analyze documents for aboutness determination. It was conducted for the purpose of developing conceptual analysis models to inform teaching, research, and praxis. The findings will be the foundations for a larger body of research focusing on the development of a theoretically sound conceptual framework for the entire subject analysis process, which will attempt to bring together some of independent, fragmented notions related to subject analysis that have been established over the centuries. The

patterns identified in the research, the use of various bibliographic features, and the identification of the major components in the process will further this goal.

This research provides insight into how humans analyze documents for determining aboutness. Relatively few LIS researchers have addressed conceptual analysis procedures, so this research helps to fill in some of the gaps found in the LIS literature. The identification and categorization of the components of aboutness determination may be the most important contributions of this research to the LIS literature. Until this time, the discussions of aboutness determination have primarily been vague statements that the analyst must determine the aboutness of an item. These LIS discussions rarely discuss models of aboutness determination, let alone the operations and processes that play roles in this activity. Another important contribution might come from the analogies/models constructed in this research for the aboutness determination process, i.e., Pearl Growing, Puzzle Building, and aboutness determination as a form of inquiry, investigation, or research. These analogies/models may assist the cataloging student, the new cataloger, and the cataloging instructor in understanding the components and structure of the aboutness determination process.

Some of the most interesting findings in the study—and therefore additional contributions to the discussion of aboutness—were those findings that were unexpected and/or surprising to the researcher. These include the participants' interests in: issues of validity, the author's point of view, concepts reflecting personal interests or previous knowledge, audience, intellectual level, tone and language, and the author's background. Also of note were the components that the participants were uninterested in, including: indexes, epistemology, the use of categories, questions a document will answer, rhemes, possible uses for a document, and other approaches to examining aboutness proposed by LIS researchers throughout the years. These are

also contributions to discussion of aboutness determination. The contribution of this research to library and information science, however, lies in its usefulness: to educators; as a foundation for further research; for the continued development of theories of information organization; and in the actual practice of subject analysis activities.

8.4 RECOMMENDATIONS

This study is the beginning of a larger research agenda to investigate myriad issues in the determination of aboutness. This phase has attempted to identify and provide some insight into the nature of the process and into the components involved in determining aboutness. As data continues to accumulate over the course of further investigations, the researcher expects that the models will evolve and insights into aboutness determination will increase. The models themselves should be tested further using additional methods. In order to continue exploring the nature of aboutness determination, the following topics should be investigated.

The researcher is interested in determining whether professional catalogers using the exact same research design would use the same models, operations, and process, or use different approaches to determining aboutness. The researcher is also interested in determining whether a process for evaluating and comparing conceptual analysis methods is feasible. The development of criteria to compare aboutness determination methods must be addressed first. Comparisons should be based on both intrinsic and extrinsic measures using both quantitative and qualitative approaches. Intrinsic measurements may include examining levels of specificity, exhaustivity, consistency, and other qualities of the aboutness statements. Extrinsic measurements may

include examining how the aboutness statements relate to the cataloging of the items, i.e., can the same results be obtained through the cataloging of the aboutness statements? If a process can be developed, the researcher will compare various approaches to conceptual analysis. These approaches may include those developed by Taylor, Langridge, Wilson, Ranganathan, Maron, textual approaches, use-based approaches, themes versus rhemes, subjective versus objective approaches, and the models developed during this research project.

The researcher will also use the structure of this research for another small study, in which the aboutness statements created by the participants are compared to the Library of Congress subject headings that professional catalogers have assigned to the books. This comparison will be performed to identify the types of concepts that have not been represented in the subject headings. This new study will be performed in order to identify patterns in what has been omitted during the translation of the aboutness into controlled vocabulary, or patterns of which concepts may not be translatable into controlled vocabulary.

The models described should also be tested on other types of documents, i.e., Web pages, non-print materials, etc. The researcher may also investigate requirements related to various types of materials and different disciplines that may need to be addressed in the aboutness determination process. In addition, the researcher would like to investigate the impact of emotions, personal interest, personal knowledge, feelings regarding the process, and feelings about the text on the aboutness determination process. In time, with further study, aboutness determination, a fundamental operation of information practice will be better understood, and part of the great mystery of subject cataloging might be solved.

APPENDICES

Appendix A. Exemption Letter

The following is the exemption letter received from the Institutional Review Board at the University of Pittsburgh, which allowed the research to be conducted using human subjects.

	University of Pittsburgh Institutional Review Board Exempt and Expedited Reviews Christopher M. Ryan, Ph.D., Vice Chair	3500 Fifth Avenue Suite 105 Pittsburgh, PA 15213 Phone: 412.383.1480 Fax: 412.383.1146 e-mail: irbexempt@msx.upmc.edu
TO:	Daniel Joudrey	
FROM:	Christopher M. Ryan, Ph.D., Vice Chair <i>Chris</i>	
DATE:	April 29, 2004	
PROTOCOL:	An Evaluation of Methods for the Conceptual Analysis of Documents	
IRB Number:	0404189	
<p>The above-referenced protocol has been reviewed by the University of Pittsburgh Institutional Review Board. Based on the information provided in the IRB protocol, this project meets all the necessary criteria for an exemption, and is hereby designated as "exempt" under section 45 CFR 46.101(b)(2).</p>		
<p>The regulations of the University of Pittsburgh IRB require that exempt protocols be re-reviewed every three years. If you wish to continue the research after that time, a new application must be submitted.</p>		
<ul style="list-style-type: none">• If any modifications are made to this project, please submit an 'exempt modification' form to the IRB.• Please advise the IRB when your project has been completed so that it may be officially terminated in the IRB database.• This research study may be audited by the University of Pittsburgh Research Conduct and Compliance Office.		
Approval Date:	04/29/2004	
Renewal Date:	04/29/2007	
CR:ky		

Appendix B. Introductory Script

The following is the script that was used when interviewing potential participants to determine if they were eligible and appropriate to participate in the study.

My name is Daniel Joudrey, and I am conducting this study. I am a doctoral candidate in the Department of Library and Information Science at the University of Pittsburgh's School of Information Sciences. This research is for my dissertation.

The purpose of this research study is to examine how future information professionals go about determining the subjects of documents. The study will use three data collection methods to determine how the participants approach this conceptual analysis of information materials. The study is recruiting twelve masters' students from the School of Information Sciences' Department of Library and Information Science as participants. The time required to participate in this research is approximately 120 minutes. Additional follow-up time will be asked of some participants to validate findings and interpretations of the data.

Each participant will be asked to analyze three different books and write a statement describing the subject matter of each item. Three methods for collecting this data will be used to gain greater insight into the subject determination process. Each participant will be asked to use speak aloud techniques during the document analyses so the researcher can observe the processes involved in determining the subject matters of the documents. Then each participant will be interviewed after performing the analyses. A checklist will also be used to collect data. All twelve sessions with participants will be recorded on audiotape to ensure as little data loss as possible. Each tape is to be used only for the purposes of the research. It will only be kept for the length of research study, after which it will be destroyed. All tapes, as well as all other research materials, will be kept under lock and key.

If you are willing to participate, you will be asked about your background (e.g., years of education, library experiences, subject expertise, etc.). There are no foreseeable risks associated with this project, nor are there any direct benefits to the participants. This is an entirely anonymous study, so your responses will not be identifiable in any way. All responses are confidential, and results will be kept under lock and key.

Your participation is voluntary, and you may withdraw from this project at any time. I, the researcher, also have the right not to include you in the study if it

appears that you are unable to perform the tasks needed or are unable to communicate your thought processes appropriately. The researcher also reserves the right to remove any participant from the study if, among other things, there is some chance of harm to the subject's health or welfare or if there is failure to comply with instructions, to effectively implement study activities, or to maintain the appointment schedule.

Do you have any questions?

Appendix C. Information Sheet

The following is the information sheet used to collect data from the participants in the recruitment phase of the research. The line spacing on the sheet has been compressed to fit the sheet onto one page.

Name:	Preferred name:
Daytime Phone:	Evening Phone:
Email:	Date of Birth:

Previous Education/Subject Expertise

Library Work Experience

Area of specialization/interest in Library Science

Non-library work experiences

Experience/Background/Interest in Cataloging and Classification

Have you ever applied subject headings to a book or other document?

Have you ever assigned classification numbers or call numbers to a book or other document?

Have you taken LIS 2001 Organizing Information or any other cataloging or metadata courses?

Do you object to being audio recorded during the research sessions?

Appendix D. Think-Aloud Exercise

The following is the script for the think-aloud exercises that were used during the recruitment phase in order to determine if the participants were able to speak aloud while performing another task. The tasks used were: 1) putting together a child's jigsaw puzzle and 2) drawing a floor plan. The first task was fairly simple, but the second was deliberately more challenging.

Because not everyone will be able to perform the think aloud tasks equally well, it is important that participants included in the study are able to communicate their thoughts through these procedures. To determine which participants belong in the study, it is necessary to test your ability to use the think aloud process. It is hoped that all participants will be able to perform the conceptual analyses without much disturbance or disruption from the think aloud procedures, but in order to ensure this, I would like to ask you to complete one or two small tasks while verbalizing your thoughts.

If you are ready, let's try one.

1) Please complete this children's puzzle, while verbalizing your thoughts.

Let's try one other:

2) Please draw a simple floor plan of your apartment or the first floor of your house while describing each step.

Do you have any questions?

Appendix E. Instructions

The following is the set of instructions given to the participant just before they performed the tasks in the study. These instructions repeated much of the same information that was given during the initial interview. Think-aloud warm-up exercises were also included.

Thank you for agreeing to participate in this research project. The purpose of this research study is to examine how future information professionals go about determining the subjects of a document. The time required to participate in this research is approximately 120 minutes. Additional follow-up time may be asked of some participant to validate findings and interpretations of the data. All sessions with participants will be recorded on audiotape to ensure as little data loss as possible. I want to remind you that this is an entirely anonymous study, so your responses will not be identifiable in any way. All responses are confidential, and results will be kept under lock and key.

The first thing I would like to ask is: Are you familiar with any of these three books?

In this research, you will be asked to analyze these three books and write statements describing the subject matter of each of the items. You will have approximately 90 minutes to analyze the three items and to write the three aboutness statements. If you need to go longer that is fine with me or if you get done in 30 minutes that is also fine; how you handle it is up to you. The examination of the text should be conducted by skimming the text, not attempting to read the entire work. (That does not mean you cannot read small portions of the text, just not the whole thing.)³¹¹

There is no limit on the length of the aboutness statements or the number of concepts that should be included in those statements. You, however, should remember that when a book is being analyzed for its subject matter, it is most often done on a summarization level. In other words, the aboutness statement should reflect the contents of the entire information package, not just individual pieces (chapters, sections, paragraphs, etc.) of the work. You should describe the subject matter of the work as a whole. I suggest that when writing an aboutness statement, you will begin with, "This book is about..." This of course is up to you. If you want or need to phrase it some other way, please do so.

³¹¹ No time limits were enforced.

During these analyses you will be asked to use the think-aloud method so I understand as much of your thought processes as possible. You are being asked to focus on the tasks at hand (conducting the analyses and writing the aboutness statements), but also to verbalize your thoughts while doing so. The goal is to allow all of your thoughts to be verbalized as they enter your mind. I am not asking you to describe or explain the process as much as I am asking you to speak aloud thoughts as they cross your mind. After these analyses, you will be asked a series of questions to explore your thought processes and your experiences in conducting the analyses.

Do you have any questions? Are we ready to get started? For the purposes of “warming up,” I would like to ask you to complete one or two small tasks while verbalizing your thoughts. If you are ready, let’s try one.

Please complete the following task while verbalizing your thoughts. On paper, please multiply 15×41 .

Let’s try one other: Please complete the following task while verbalizing your thoughts. Please put together this small puzzle.

Do you have any questions? If not, let’s get started. Do you mind if I take notes while you are analyzing the materials?

Appendix F. Interview Guide

The following questions were used to guide the semi-structured interviews. These questions were the starting points for the interviews, but often the interview went in unexpected and interesting directions based on responses provided by the participants.

General experience of analyses

- How did you examine these books? What did you just do?
- Did you do the same things with all three books? Were there similarities and differences in how you approached the three different items?
- Was it difficult or easy? What was your experience like going through it? Were you comfortable?
- What difficulties or problems did you have? What was problematic for you?
- How confident are you in your analyses?
- Did you want or need more time? Did you feel rushed?

The Process

- What kind of words/things did pop out to you? Can you categorize them? What caught your attention?
- If we just open a book randomly, what do you see? Where do you look first? What things attract your attention?
- Are you drawn to the certain portion of the page? Do you go to the top, center, or bottom of the page when you open the book? Are you guided by the white space?
- When you started to look for information to help you, were you looking for any particular type of information or a category of information? Were you looking for particular things?
- Did you look for familiar ideas or concepts or perhaps what were new or unfamiliar concepts?
- How did the structure of the book point you toward the aboutness? (i.e., cover, title, subtitle, front matter, chapter titles/headings, sections, sentences, quotations, conclusions, bibliographic references, publication information, etc)
- Did you look at the index?

- Were there visual cues that pointed you toward the aboutness? If so, which ones were important?
- Did you have difficulty skimming the text? In what situations did you or did you want to read more of the text?
- How often did you make guesses or assumptions?
- When did you get your first idea about the aboutness?
- How or did you substantiate your assumptions? Did your examination of the book reinforce your initial ideas? Did it provide new or different insights? How did the aboutness change during your examination? Did it change? Did it continue to change?
- How did your aboutness evolve? Was it constantly evolving incrementally with new information or were there periodic, major adjustments (paradigm shifts)?
- How did you decide what to ignore or skip?
- Did you make associations to other books or other documents to help figure out the subject of these items? In what way? Did these associations affect or prejudice your ideas about the book?
- How did you know when to stop looking at the item? How did you know when you knew what it was about?

Approaches to Aboutness

- Did the discipline/field of study play a role or affect your understanding of aboutness?
- Did page layout, font, or typographic symbols play a role in the process? Did it play a role in determining aboutness?
- How did word frequency (or concepts/ideas frequency) play a role in the process? Did it play a role in determining aboutness?
- Did the author's language (word choice, grammar, level of formality) play a role? Did it play a role in determining aboutness?
- Did you consider the audience/level of the work? Did it play a role in determining aboutness?
- Did the issue of research methods, validity or truthfulness appear in your thought processes? Or the currency of ideas? Did it play a role in determining aboutness?
- Were you concerned about the author's point of view or approach to the material? Did it play a role in determining aboutness?
- Were you trying to figure out what the author's intent/purpose or what the author is trying to say? Were these considerations?
- Did you consider what it would be used for?
- Did you consider what was new about the document?

Appendix G. Individual Participant Narratives

This appendix describes the individual participants' experiences during the aboutness determination sessions and their uses of the models in various combinations. These descriptions attempt to show how individual participants used the primary components of aboutness determination identified and explained in Chapters 4 through 7. Included are: the participants' overall approach to the examination of the physical and intellectual items and the aboutness determination models that best fit their processes. Descriptions of their analysis sessions are included in these narratives, as are descriptions of any idiosyncrasies observed, descriptions of the participants' personal interests, and specific details related to their examination of each of the three items. The researcher has included extensive illustrative quotes from session transcripts to let the participants' own words describe their methods and experiences.

Participant 1

Participant 1 was very systematic and linear in her analysis of each item; she scanned nearly every page of each of the three items until she reached the end. It is possible that this extremely linear approach was caused by the artificiality of the research situation. At the time of the first session, the instructions to participants stated that they should skim, not read the items to determine the aboutness of the entire item. It is possible that Participant 1 interpreted these instructions – to *skim* the material to understand the *entire* item – as meaning that she should skim each page. When asked about this, however, she stated, “I am a cover-to-cover gal. That’s how I do things.” Because she looked at nearly every page, she skimmed the text quickly. At

times, it appeared that she was mining the pages for recognizable or interesting words, rather than skimming.

Participant 1's approach varied only slightly with each item. She began the process by examining the cover information and the title page, which led to an initial assumption of the item's macro-level aboutness, or at least to an impression of the book and its subject matter. Afterward, she looked at the table of contents and the rest of the preliminary bibliographic features, which supported or formalized her initial assumption. Participant 1 was the only participant to intentionally ignore the introductions in all three books: "Introduction. Nope, I will make up my own mind." Instead of examining the introductions, she worked through each chapter, section by section. Participant 1's approach to each chapter began with its title page and abstract or opening quote, if these were present. These could lead to assumptions of chapter-level aboutness. Her next step was to read the first sentence of the first paragraph of each chapter, after which she skimmed the chapter's text, focusing primarily on any section headings. If headings were unclear, she would read some of the text. During the examination of the chapter's text, she reinforced, refuted, and/or refined her assumptions of the chapter's aboutness. Throughout her examinations, Participant 1 took notes on each chapter, paying particular attention to visual features in the text, such as sidebars, bullet points, and tables, but ignoring pictures and illustrations. She said, "Forget the picture; it's not the text." The further Participant 1 went into the books, the more she simplified her examination process. While in the first chapters of an item, she would spend more time reading passages and examining components of the text; by the midpoint, she had streamlined her process considerably, and in later chapters, she sometimes resorted to extraction of words from chapter titles to determine what a chapter might be about. There were fewer verbalized assumptions and more reliance on chapter title words in the latter

parts of her examinations. Once she finished examining all of the chapters, she began to formulate her understanding of the aboutness of the entire item. When it came time for her to write her aboutness statements, she composed the statements only from her notes, never going back to the items themselves to confirm, reinforce, or refine her ideas. “Usually, I just used my notes, because I was jotting down notes as I went. That would have been the reinforcement to go back to, not to the physical book itself. I trust what I write.” This was the case even when the participant admitted that she did not know what the book was about.

Participant 1 used the Puzzle Building approach to determining aboutness. She began the process with an assumption of the macro-level aboutness of the item, which became the framework for her understanding, similar to building the frame of a puzzle from the edge pieces. Then, she collected one or more pieces from each chapter for her puzzle. The pieces were assumptions about the contents of the chapters and/or other aspects of the text. Pieces were either extracted directly from the text or the chapter’s title words, or were developed using the Pearl Growing approach. Pearl-Grown puzzle pieces began as initial assumptions about the content of the chapter. This assumption was a grain of sand, which grew in complexity as she encountered more information and ultimately developed into a pearl. This pearl represented the chapter’s aboutness. At the end of the examination, the puzzle pieces were fit together to complete the final aboutness puzzle. In other words, Participant 1 viewed the item’s aboutness as being the sum of its individual parts. A model of her aboutness determination process is illustrated in Figure 7.9: Chapter-Based Puzzle Building With Pearl-Grown Chapter Pieces.

Participant 1’s final determination of aboutness was conducted after all of the puzzle pieces were collected. She fit the pieces together when she tried to describe the items in her aboutness statements. While the researcher assumes that some understanding of the developing

aboutness occurred throughout the exercise, this participant did not verbalize any macro-level synthesis until the very end; throughout the process, she focused on developing the individual pieces. How much of the macro-level aboutness was actually synthesized during the examination of the text is unclear due to the limitations of the think-aloud process; it can only capture what the participant verbalizes.

Participant 1 went through each item and scanned the pages for words that stood out to her. Her own personal interests and knowledge determined what she considered to be highlights of the text: “I’ve got to be honest with you, what I was looking for was stuff that was interesting to me.” Topics in which she had a personal interest were noticed more quickly, and were often mentioned in her think-aloud sessions. Throughout her analyses, Participant 1 attempted to make personal connections with the items; relating each text to her own experiences and interests. There were also certain forms of content that caught her attention. By her own words, she was particularly attracted to numbers, dates, and statistics.

It is easy for me to analyze numbers, so I am probably drawn to that. A lot of it has to do with my interests. I mean, if I read a word and make an association, then it catches my interest, that’s where I alight frequently. Same thing with numbers too, percentages, then I will [look at] that.

Her attention was guided by her own interests, but it was also caught by features of the text that stood out. These included bibliographic features such as section headings and chapter abstracts, but also typographical features such as italics, bold text, and capitalized words; thus, she noticed titles, personal names, and other proper nouns.

With the first item, *We’ve Got Issues*, the participant paid special attention to the separate title pages for each chapter, which contained the chapter’s title and an abstract. Participant 1 stated that she was very interested in Book One’s subject matter, i.e., the political issues of the 2000 US presidential election. She often stated that she wanted to read more of the text: “See I’m

pretty interested in this. So, I am going to read the whole last paragraph.” She tried to figure out the audience for the item and the political orientation or point of view of the author. For some chapters, she made assumptions about the content. Sometimes she was right; sometimes she was wrong. Skimming the chapters reinforced or refuted her assumptions. She spent more time on Book One than on the other two items, and because she was concerned that she was taking too long with the first book, she stopped after the eleventh chapter. By that point, she was comfortable enough with the material to describe the item’s aboutness without reading the conclusion at the end of the book.

This book is about one individual’s opinion on Generation X’s political and societal state. It examines over a dozen issues that young adults should be conscious of and proposes some remedial actions for those young adults reading the book. What struck me as the most important issue is that young adults must be informed and vote as soon as they are able.

Participant 1 also expressed interest in the book on diet and brain health, *The Crazy Makers*. She stated that her background in nutrition meant that this would be familiar territory for her. While looking at the cover, she made an explicit assumption about the macro-level aboutness of the item: “I actually know a lot about this, but back to the work. I have a degree in nutrition. I feel this is going to be totally about processed food. I could be wrong.” She was correct that processed food was a major topic of the item. After the table of contents, she deviated briefly from her otherwise linear process to look at the recipes comprising the final chapter. She then went back to her standard strategy of skimming each chapter in order.

Participant 1’s personal knowledge of the topic did play a small role in the process of examining Book Two. She mentioned an issue that she considered to be important to the content that was not addressed in the item. “She doesn’t talk about the elderly’s unique dietary problems, which I actually read a lot about years ago.” Participant 1 was also concerned about the author’s

background and expertise. “Okay, hmm, sounds like a nutritionist to me.... She may be a nurse. Maybe not.... Ah, she’s a nutritionist.” She easily determined the aboutness of this item, though in her final aboutness statement she does not actually mention brains, a key concept in the item; referring to mental health instead.

This book is about the various stages of life (except senior years) and the connection between various nutritional issues and the states of mental health caused by those nutritional issues.

Participant 1 thought the humanities text, *The Death of Satan*, was the most difficult to analyze.³¹² The approach she had used for the other two items proved less successful this time; she generated fewer assumptions of chapter-level aboutness, and thus had almost nothing to reinforce, refute, or refine. Participant 1 was handicapped by not reading the introduction of Book Three. As with the other items, she began the process with the title page and table of contents, but found little useful information from these sources. Book Three contains no section headings, so she began by reading the first sentences of each chapter’s sections. Again, the participant scanned the pages for the words that stood out to her, and tried to make associations to her own experiences and knowledge; this time, however, the content was foreign to her and her ability to do this was limited. When she encountered information related to her own interests, she spent extra time reading those passages. She stated several times that she felt that she needed to read more of the text in order to get a better understanding of the content; in reality, she read fewer passages in Book Three than in the previous two items. It was as if she was trying to figure out a more complex topic by using a more superficial process. Skimming pages proved to be inadequate for finding the detailed arguments and key concepts scattered among the pages. At one point, she took some “thinking time” to review what she knew about the item and to make connections with her understanding of the topic. Participant 1 attempted to figure out for whom

³¹² This turned out to be a leitmotif throughout all of the participants’ analysis sessions.

the book was written, but this time with little success. She stated several times that she was not sure she knew what the book was about, and was concerned about her performance. Her process for this item showed very little chapter-level Pearl Growing, and focused primarily on collecting pieces for the puzzle. At the end of Part I of the text, she attempted to collect her thoughts on the aboutness of the first half of the book, which was primarily an attempt to fit together the titles of the first three chapters of the book into a cohesive description of Part I of Book Three. When she reached the end of the book, she tried to piece together an aboutness statement based on what she had read of the text, her interpretations of the book's title, the titles of Parts I and II, and the individual chapter titles.

This book is about the evolution of Western culture's view of the devil, and more than that, *devilishness*. The first is about the traditional view of Satan as an actual entity and about the transition to more modern views of Satan due to a social transformation. The transformation took the form of a world view of self relating to the physical and spiritual world. The second part of this book looks at our continued transformation. It has demonstrated how Westerners have continued to modify their spiritual place in the world by relinquishing and pushing away their responsibilities for their souls.

Ultimately, her aboutness statement included some concepts that were not represented in the content of Book Three, i.e., "modifying their spiritual place in the world" and "relinquishing and pushing away their responsibilities for their souls." For this item, her strategy for examining the items was not completely successful, and her interpretation of the content reflected some concepts that were of her own creation and not of the author.

Participant 2

During her analyses, Participant 2 was very literal in her interpretations of the texts, and very systematic in her analysis of each item. She had a linear approach to the material; while she didn't examine each page, she flipped through the pages of each book in order examining the

major bibliographic divisions and visual elements in the text. When asked about her linear approach, she stated that she thought that it might be related to the task, rather than to her natural inclinations. When looking for a book in a bookstore or a library, she normally just reads the last section of the last chapter to determine what it is going to be about. Starting at the beginning of the book and proceeding straight through is what she thought she should do to determine aboutness in the context of the study.

She began the aboutness determination process by skimming the front matter of the books and its primary bibliographic features, and then conducting an orderly examination of the chapters. She skimmed the pages of the introduction for each item, reading only the last paragraphs. She believed that she could quickly establish what she thought the book was going to be about from the last paragraph of the introduction, a strategy that did not always work. Participant 2 examined the chapters primarily by skimming the chapter's section headings. "You really can get away with not reading the whole book because once you look at the headings you get a good idea of what [the author is] talking about." Her text examinations were centered on a four-step process, which entailed two levels of input, followed by interpreting, and reinforcing. She would look at a section heading and then read the first or last sentence of that section. She would then explain or interpret the meaning of that section to herself based on that input, and then attempt to reinforce her interpretation by examining a few more passages of text. For example, in Book One she analyzed one section in the following manner.

He goes into the election of 2000 **[section heading]**. George W. Bush tells the elders that they are the greatest generation of Americans. **[last line of section]** I think that kind of shows really that most politicians are just gearing their elections toward older Americans and not younger Americans, not Gen Xers. **[Her interpretation of the section heading and the sentence]**

As she began to move further into each book, she began to hurry, in an attempt to simplify and shorten her basic process. This meant that she began to neglect the reinforcement step—a change that did not serve her well and resulted in some interpretations that were completely off the mark: “‘Golden Arches’ which is about McDonald’s”—this chapter was not about McDonald’s. “‘Public Baby-sitting’ [chapter title] talks about out-of-wedlock pregnancy and drive-in movie make-outs. Obviously, too many teenagers are having children.” This, too, was incorrect; the chapter dealt with problems in the public education system. She finished the examination by reading the last paragraph of the chapter. When she felt she knew what a section or a chapter was about, she moved on to the next.

Throughout the analyses, Participant 2 used a chapter-based Puzzle Building approach. She developed a general frame for the puzzle from the front matter, the table of contents, and the introduction, and then filled in the middle of the puzzle with pieces of the aboutness found throughout the text. Some pieces represented the aboutness of a chapter. Others were units of raw, micro-level aboutness, not having been synthesized into a full statement of chapter-level aboutness. This was her approach for all three items. “I think what I did was to summarize what each chapter was about and put that into the summary. I could have come up with a better summary though with more time.” Her approach to aboutness determination is illustrated in Figure 7.3: Chapter-Based Puzzle Building. Her approach to the items was consistent throughout with only minor variations. When asked if she noticed patterns in her activities, she stated:

I found myself looking at the section headings ... the [table of] contents because I think that gives you a good idea of what it is...I looked at the pictures and graphs: things that visually stimulate you, that get your attention. And in all three cases, I did look for things I was familiar with.

Participant 2 stated that if she saw something during her examinations that caught her eye, she would read it. If not, she moved on to the next section heading. When asked if she was looking for anything in particular, she stated:

I wasn't really looking, but when I did see certain things, things that I recognized and certain names that I recognized, certain issues that I recognized, I think that tended to catch my eye more than other things that weren't familiar to me.

For Book One, Participant 2 followed the process described above with little variation. She spent some extra time looking at the illustrations and photographs in Book One, from which she recognized the book's targeted audience. She referred back to the audience several times during her examination when she encountered more photographs of young people. Her final aboutness statement adequately addresses the contents of Book One, and includes a list of her major puzzle pieces.

This book is about Gen Xers, and issues that Gen Xers have, what they are not paying attention to, and what they should be paying attention to, and what they are not. It talks about politics, socio-economic conditions, race relations, racial and socio-economic inequality, and protection of the nation. The author promotes Gen Xers getting involved in these issues.

During her examination of Book Two, Participant 2 made two small changes in her overall approach. The first was that she used some Pearl Growing to develop the framework for the aboutness puzzle; this was a brief departure from her standard process. The second was that she made no assumptions of chapter-level aboutness in Book Two. The text in *The Crazy Makers* is structured around different stages of human development with the content of each chapter being somewhat the same, but tailored to each developmental stage. It is unsurprising that chapter-level aboutness statements were not necessary for this item. Participant 2 examined each chapter and noted elements of each chapter's content, but did not synthesize these elements together into a statement of chapter-level aboutness. Instead her puzzle pieces reflected various, discrete details

of the text. She had a basic understanding of the aboutness, but she failed to mention the effects of prepared foods and additives on brain health, which is a major concern of the work.

This book is about how one addresses their nutritional needs throughout different stages of their lives. She gives examples of the harm we are doing to our body by eating pre-packaged meals, because we are lacking minerals and vitamins. She says our forefathers and foremothers did not have these problems, they weren't so dependent on pre-packaged meals. She talks about ways to correct problems.

Like the other participants, Participant 2 found the first two items much easier to analyze than the third item.

For me, certain books were easier because I already knew what they were talking [about]; [the first book] was more of a political book. I have a political background, so it was easier for me to know exactly what they were talking about.... *Death of Satan* was a little bit harder just because I wasn't familiar with the topic. So that's what made this one the most difficult for me.

In the first two items, her process of examining the headings to understand chapter content worked well enough to provide an overall grasp of the aboutness; this strategy, however, proved impracticable for the third item, which contained section numbers instead of headings. "The layout was basically the same throughout...it made it more difficult. On top of that, you get bored with it." She attempted to read the first sentence and the last sentence of the sections and the chapters, but, "that really didn't sum up anything at all." Because her strategy was failing, she had difficulty establishing assumptions about the content of Book Three. Without these assumptions, she had little to reinforce, refute, or refine throughout the process.

I didn't really have that type of reinforcement. So I basically went through skimming for what it was about. Satan wasn't even present throughout the book, so I couldn't even establish that it was about Satan.

Her attempt to grasp the introduction's content by reading only its last paragraph also caused difficulties for her in Book Three. "If I had read the introduction, it probably would have helped, but with the others, just reading the last paragraph of the introduction tended to help." Because

she did not have any real grounding in the content of the work, Participant 2 had more difficulty filtering out or ignoring details that were unimportant to the macro-level aboutness of the item. Ultimately, she included concepts in her aboutness statement that were not central to the work, such as racial inequality. She did, however, include the concept of literature, a key concept that few participants included in their aboutness statements. In the end, she relied on the use of broad categories to summarize the aboutness of the last item.

This book is about literature, racial inequality, the role Satan has played in literature, and how satanic acts were construed as different things throughout the times.

Her aboutness statement is not incorrect, but it is missing some concepts and its pieces have not been integrated into a complete picture of the puzzle. It is a very fragmented list of broad concepts.

Participant 3

Participant 3 used three different approaches in her examinations. For Book One, she used a completely non-linear, random approach to looking through the text. For Book Two, she used the two-ends approach, examining the introduction and the conclusion, but little in between. Unlike the first two participants, she looked at only small segments of the first two books. Her process was not as dependent on the bibliographic structures, except when she was examining Book Three. For *The Death of Satan*, she used a linear approach, primarily due to its more complicated argument, which is held within a less obvious bibliographic structure. She stated, “I needed to look at each chapter to verify he was going through history sequentially; to look at some of his arguments in depth.” Participant 3 skimmed the books, read a small number of short passages, and scanned the pages for words that stood out. She also flipped randomly through the pages of the books, jumping from one place to another without looking at the pages in between. “I always

flip through books backwards. I don't know why I do that...I will flip to the middle read a little bit, then flip back...I am comfortable skipping around. It didn't make me lose track of where I was."

Her overall examination process began with a brief physical examination of the items; she examined the covers and the tables of contents. Then she flipped through the books and sampled the text to "take a look at what kind of language is being used—what's being referred to over and over again." This is reminiscent of Wilson's third method, the objective approach to aboutness.³¹³ She stated that she felt the introductions and conclusions were the most helpful features because if she read them, she did not need to read all of the material in between. She did not mean, however, that one should *only* read the introductions and conclusions. "It's funny. You had to look at the whole item. I couldn't just look at the title and assume. I had to look, flip through. I couldn't just look at the introduction or the conclusion. I had to look at the middle too. You actually have to hold it, flip through it, [and look] at pieces on each page" to reinforce assumptions of aboutness.

Participant 3 examined the introduction and conclusion in each item, looking for some type of thesis statement or statement of the author's intent or purpose.

They all have something in there that states what it's going to be about. So, I skipped to that, and then to the conclusion...Hopefully they will say, "This book is about' ... and they say it once, and they are clear, unlike this guy [the author of Book Three] who said it 18 times, and every time it was a different meaning...I want to know what the author's intent was. I know some authors don't really achieve their intent; some authors do. So maybe their statement of what the book is about isn't necessarily the most accurate summarization, but it really gives you a whole sense of what they are trying to do.

This approach to determining aboutness is straight out of Wilson's purposive approach. Even the participant's concern over the author's ability to understand his or her own intent and

³¹³ Wilson, *Two Kinds of Power: An Essay on Bibliographic Control*, 83-85.

accomplishments echoes Wilson's thoughts on the process.³¹⁴ Participant 3 states that because some introductions are long and wordy, hunting for the author's intent can be difficult; it can be buried in mountains of text, and may not easily stand out to the reader. When asked what stood out to her in the items, Participant 3 replied:

Whatever had been mentioned in the title or introduction as the topic of the book would jump out. In [the third book], it was evil, evil, evil all over the book....so, I would try to pick out anywhere he mentions that topic...It is important to identify the primary topic *evil*, but, we are not talking about just evil. We are talking about evil in America, and we are talking about history. So, it's a history of evil in America, or a history of the philosophy of understanding evil.... Evil doesn't stand by itself. You had to pick out all those other words as well to tell what it was about. And those are words that occur frequently and they occur in conjunction with the primary word that you are looking for.

She understood clearly that a simple category or concept was insufficient to describe an item's aboutness; the sub-topics and sub-themes must be addressed as well to adequately describe what an item is about.

Participant 3 determined the aboutness of each item using the Pearl Growing approach. She was the participant who made the analogy between pearl growing and aboutness determination.

It builds like a pearl. You get layers and layers of understanding. Every phrase you read adds something to that until you are comfortable with the summary.... Once I had a fairly complex pearl that was enough. When there was no additional information, when I stopped finding anything new, [then I could stop].

She began with the development of an initial assumption of the macro-level aboutness from the title and introduction. Once these assumptions were in place, her process focused on verification, reinforcing, and refining her assumptions, i.e., gathering additional layers of information until a complete, nuanced aboutness was understood for each item. "I would make a guess, then try to

³¹⁴ Ibid., 78-81.

back it up with what I was seeing when flipping through.” Figure 7.2: Pearl Growing is an illustration of her aboutness determination process.

Participant 3 paid attention to some non-content-oriented aspects of the items, such as the author’s tone, the level of the vocabulary used, whether the work was popular literature or scholarly in nature, the author’s approach to the material, the audience, and the author’s point of view. During the examination of each book, she was particularly interested in identifying the author’s agenda and purpose for writing the book. In Book Two she was concerned with the validity of the information and how the information was being presented to the reader.

She’s got a purpose to serve; she’s using these statistics to support her argument that we’re not getting the right things that we need for our brains.... She hasn’t made the statement in here; I don’t see it in here, anything to indicate, “Well, these things could be caused by something else’ ... but she’s really just got facts and facts and facts lined up about poor nutrition doing things to you, what artificial coloring can do.

Participant 3 made comparisons between the items being analyzed and other books with which she was familiar. She placed the items into ad hoc categories, such as:

- This is one of those books that sort of looks like fact on the outside, but when you read it, it’s just trying to be clever and sarcastic.
- Something you would pick up in a bookstore for beach reading.
- My husband is big into these books, where it’s *How Disney is Destroying America* and *How HMOs are Ruining Your Health.... The Corporations Are Going to Get Your Mama*.

These are obviously not formal categories, but they served the same function for this participant. She categorized the items and made associations to other works to develop a context for the information she was collecting. The context helped her to understand where the books belonged in her own personal scheme of classification. She also addressed the intertextual relationships that were created by having the participants analyze three items in the same session. While examining *The Death of Satan*, she stated, “I don’t think this has a solution. The brain lady has

one—make these recipes and things will be fine. I don't think *this* book is going to have recipes in the back.”

Participant 3 acknowledged effects that were related to the visual presentation of the items. She observed that her own impressions of books are often affected by their design:

It's a little scary how much the physical design of the book can influence what you think the book is about, or at least to sort it into entertainment or academic slots. As a customer in a bookstore, you go in and judge books by their covers...I identify popular reading versus academic reading. The first two [items] are popular reading; the third one is definitely academic. The academic books are the hardest to read; those are the hardest to figure out what they are about, although the titles are usually very descriptive.

The Death of Satan, a hardback book with no cover illustrations, has a plain, grey cover that may give it an appearance of seriousness. It looks to be a scholarly book that one would find in an academic library. The other two items, with their vividly designed paper covers, are more obviously geared toward a popular audience, and, therefore, may appear to have a lesser status and a questionable legitimacy.

Participant 3's examination of Book One was straightforward and efficient. Despite her seemingly random text examination, she easily found the aboutness for the item. She also incorporated into her understanding a concept that no other participants identified. She included a statement that the item tries to appeal to Generation X's desire to accrue wealth. This was not a large part of the item, but Participant 3 found it important enough to include in her aboutness statement.

This book is about American politics, written for a Gen X audience, addressing some major political issues, such as Social Security, that are of concern to this generation. Possibly designed to present these issues to Gen Xers and encourage them to vote, but does not appear to endorse one side or another in the upcoming [2000] presidential election. It appeals to Gen Xers' desire to accrue wealth and to retire comfortably.

In her examination of Book Two, she expressed skepticism about some of the author's claims. For example, she was wary of the science the author described because she did not see any evidence of the author's scientific rigor. Participant 3 was unsure if the author could legitimately draw the conclusions that she did in the text.

She [does not] say, "Well, we could have taken into account this, we could have taken into account that..." She's got a lot of really good, legitimate points here, but I don't know how scientifically sound they are. She is definitely serving an agenda here.

Her aboutness statement for Book Two reflects the aboutness of the item, but it also addresses the participant's concerns. She pointed out that the author makes arguments from a certain point of view and that the item provides a "lay person's literature review" of the current articles favoring the author's viewpoint.

This book is about how the food industry is destroying our brains and harming our children. The author makes scientific arguments that current processed foods on the market are bad for us because they are letting bad chemicals into our bodies and brains. She is very concerned with children's development since they are being exposed to these chemicals. She's advocating a return to more natural, organic food—like earlier humans used to eat. Includes recipes for making this change to our diet. Provides a layperson's literature review of the current scientific articles in favor of her viewpoint.

While the first two items were handled using a non-linear approach, each chapter in Book Three was examined sequentially.

It was difficult to make an initial guess, other than restating the subtitle. It was the hardest and it was more of a discovery. I needed to look at each chapter to verify he was going through history sequentially; to look at some of his arguments in depth ... I needed to go through it forward because it was a history. He was obviously presenting everything in a linear way. So, I wanted to make sure that he progressed in a consistent way.

Participant 3, therefore, found it necessary to adapt her approach to aboutness determination in response to the differences in the structure, level, and nature of the content in Book Three.

This book is about the history and philosophy behind the human (not necessarily American) search for the source of evil, specifically focusing on the time period between America's colonization and the present. The author points out two separate beliefs that are prevalent: evil as characterized by the devil, who is personified and is therefore able to be blamed for evil happenings, and evil as an innate capacity of all humans. He backs up his arguments with lots of references--this seems to be a fairly academic book. He does conclude that we need to come to a common conclusion (that evil is an inherent human trait); once everyone agrees, it will be easier to combat evil as a society.

In her aboutness statement, she addresses not only what the item is about, but also the disciplinary approaches, time periods, and the intellectual level of the work. Her statement of the author's conclusions is a bit hyperbolic and includes concepts not emphasized by the author; for example, there is no discussion by the author about combating evil as a society.

Participant 4

The process used by Participant 4 was very linear; she systematically examined the components of each book, in the order in which they appeared. Similar to Participants 1 and 2, this participant conducted a march straight through each item. Participant 4, though, had her own twist on the process: in addition to skimming the items, she spent time reading large chunks of text. In all three items, she read at least one passage from each paragraph in the introduction. She stated, "An introduction will tell me basically what I am going to read, what it is going to be about." She felt her time in the introduction was well spent.

She began her examination with the cover, the title information, and the table of contents of each item. From these, she was, in most cases, able to make an assumption about the item's content. She then read the introduction, which was critical to her process of determining aboutness. The rest of the examination was used to reinforce what she had learned from the introduction, and to add new concepts if they appeared. This reinforcement process entailed paging through the chapters looking at chapter abstracts, opening quotes, and section headings.

Participant 4 primarily used Pearl Growing, although her examination strategy was generally linear. For the first two items, her process began with Pearl Growing and then moved into a chapter-by-chapter examination of the text when it was time to reinforce her notion of aboutness. Starting with titles as the grains of sand, she developed assumptions of the macro-level aboutness for the items from the covers, tables of contents, and introductions, then, layers of new information were added to form the pearls. Once her pearls were in place, her process focused on identifying the chapter-level aboutness. This was used to verify and reinforce her initial assumptions. At times, her initial assumptions were refuted, and thus, needed to be revisited and refined. In the passage below, she described the process of assumption making and reinforcing, as well as how one of her initial impressions had to change during the process of examining Book Two.

After going through the sections in each chapter, I had a little more understanding that it focused on brain chemistry, not ... the obesity epidemic in the United States. Reading through the introduction and the section headings, I knew it was more about how your brain is affected by nutrition and how that development is affected.... It started out as one thing in my head, but as I was reading, I realized it wasn't that, it was something else.... I kind of had them both in my head. I was keeping the obesity thing in my head thinking that at some point it was really going to mesh with the brain chemistry idea. As I went along, it seemed to be just more about affecting the brain.... I kept them both in my head to see if they were going to mesh, but one sort of pulled ahead.

Her aboutness determination process for the first two items is illustrated in Figure 7.6: Pearl Growing With Chapter-Based Reinforcement.

Her process for Book Three was pure Pearl Growing, without a linear examination of each chapter. She had great difficulty with the text and stopped the process shortly into the examination. She developed an initial, rudimentary understanding of the aboutness, but it was never refined into a complete statement. Her process for Book Three is illustrated in Figure 7.2: Pearl Growing.

Participant 4 felt that her greatest difficulty in the process was that reading while speaking aloud slowed her down. She also stated that she had trouble finding the right words to describe the items. Unlike some participants, who were attracted to familiar concepts or personal interests, Participant 4's examination was primarily guided by the structure of the text and by what caught her eye. The things that stood out to her were primarily visually or typographically different text features. When asked what these were, she said:

Things that were bolded, section headings in the different chapters. In *The Death of Satan*, though it wasn't helpful in figuring out what it was about, they had a lot of quotes or poems or different pieces of literature that were indented into the paragraph. Those caught my eye. In *The Crazy Makers* there were a lot of tables and graphs talking about nutrition that were catching my eye. In *We've Got Issues*, the titles for the different chapters had their own title page, which was grey, with the text set in a white box. That stood out a lot.

Her process for Book One started with the cover and the table of contents. She stated, however, that she did not understand the title or the chapter titles because they were "cutesy." After she read the title of the introduction, however, she immediately made an assumption that the book was about politics. In reading the text of the introduction, she was able to reinforce her assumption and broad categorization. As she encountered more information, she refined and adjusted her assumption to fit the new information. This was her pearl. From there, she began to examine chapter one, but only looked at the chapter title and abstract. Her understanding of the chapter's aboutness reinforced her pearl. She repeated this process sixteen more times. When she reached the end of the book, she did not read the conclusion, but instead moved directly to writing her aboutness statement. Her aboutness statement contained a small list of the topics that were included in the book, but was far from complete. She did not include one of the most important concepts in the work in her aboutness statement: the author's desire to motivate Generation X to vote or to become more involved in U.S. politics.

This book is about some of the political issues that Americans should be aware of, especially when considering voting. Each chapter goes into more detail on the topics covered such as the economy, Medicare, civil rights, and crime.

For Book Two, she tried to perform the same type of examination that she did for Book One, but this time she encountered some problems. The first was that her initial assumption was completely incorrect, so she had to rethink her notion of the aboutness. The second was that the opening quotes for the chapters did not perform the same functions as the chapter abstracts did in Book One. The opening quotes did not summarize the content of the chapters; they were, instead, quotes that were related to the content but were not summaries. In response, she adapted her process to the situation, and began looking at the chapters' section headings and the concluding paragraphs. Her aboutness statement for Book Two was fairly complete.

This book is about how foods affect the human brain from infancy to adulthood. It talks about how foods are processed today and the effects those foods have. It offers solutions and nutritional information including recipes for healthier eating.

During her examination of the third item, her process fell apart. Without strong bibliographic structures or chapter summaries, Participant 4 could not get much beyond her initial grain of sand. Her established process was no longer working, and she began to feel overwhelmed and lost. The introduction to Book Three is considerably longer than the introductions in the other two items; she did not, however, spend additional time with the introduction. She stopped after reading only a few pages.

I would like to have read more of *The Death of Satan*, but I was having trouble distinguishing what parts were going to be helpful.... I guess because it didn't break down the information like *The Crazy Makers* and *We've Got Issues* did. It didn't have these specific chapters with a concrete title ... with sections that said exactly what the chapter was about. Those sections make it a little easier and more obvious. They are telling me exactly what the chapter is going to illustrate for me. *The Death of Satan* didn't do that.

Feeling somewhat lost, she then began to flip through the pages. She tried reading a few more passages from the introduction, but then not knowing how to proceed, she gave up. “It was giving up, but I had an idea in my head of what it was about from the introduction and I wasn’t finding anything else either to contradict or support it.” She used her rudimentary understanding of the introduction (primarily based on word frequency with a few broad concepts and incorrect assumptions) to write an aboutness statement.

This book is about evil, how people define and talk about it, what is considered evil in different cultures, and how people have viewed evil throughout history.

With Book Three, Participant 4 spent almost no time on the chapters. “I am not sure why I didn’t. I don’t know whether with a whole chapter ... I didn’t exactly know where to look to find the information, so I didn’t think that would be very efficient or beneficial.” It was not the most successful of analyses. Her aboutness statement included only a broad overview of the work, and contained one concept not found in the book at all. *The Death of Satan* does not address “what is considered evil in different cultures;” it is focused on the evolution of the concept of evil in the United States and how that has been reflected in American history and literature. Her process, based primarily on the use of the bibliographic features found in a published book, failed her when the item did not include an explicit structure of sections, headings, and comprehensible chapter titles.

Participant 5

Participant 5 primarily used a two-ends approach to examine the texts. For all three items, he began with the bibliographic features found in the front of each text and then jumped to the last chapter to read the conclusion. For the second and third items, this was his entire process; he did not look through the chapters in the middle. For Book One, he did look at the middle of the book,

skimming the first eight chapters. This was because he was “getting into the book.” Book One addresses some of his personal interests, so he spent additional time examining the text despite his knowing what the item was about. Participant 5 spent less time analyzing the aboutness of Book One and more time criticizing the arguments of the author, often commenting on their validity. This was the only instance in which he let his own interests really take him away from the task at hand; the other examinations were very task-oriented. This participant was primarily a skimmer, but he spent extra time reading passages from the introductions and conclusions. Despite prompting from the researcher, he would sometimes fall into periods of silence, especially when he encountered material with which he was unfamiliar. When asked what he was looking for in the texts, he said: “Where the author says, ‘Hey, this is what this book is about....’ and the beginnings of paragraphs, the section headings.” He stated, “I don’t necessarily concentrate on captions to pictures. I might see the picture; I might not. I am more likely to spend a little bit more time on a table or a graph, something like that.”

At the beginning of the session, Participant 5 stated, “I did think about this a little bit before I came here,” (much to the researcher’s chagrin). There was a definite pattern in his approach to the books. He looked first at the spine and then at the cover, paying special attention to publishing information. He would then seek out additional publishing information from the front matter or from the back of the book, where he found some information related either to the author or the publisher in all three items. He then went back to the initial bibliographic features, especially the table of contents, from which he developed his first assumption of macro-level aboutness. He read large portions of the introduction and used what he found there to refute, refine, and/or reinforce his initial assumptions; these assumptions were further refined,

reinforced, and/or refuted by examining the conclusion. He determined what the item was about without spending much time in the chapters. He stated:

Basically the idea is to have some sort of assumption or hypothesis, and then try to find the support in the text to support that.... Spine, back of book, table of contents, introduction, and the conclusion, after I got done reading those things, if I was able to make some sort of hypothesis or assumption, I stopped.

Participant 5 primarily used Pearl Growing to develop his understanding of the items' aboutness. The examinations of the second and third items were pure two-ends Pearl Growing, but in Book One, the participant did use a linear chapter-by-chapter examination of the item for various purposes. Despite his deviation from the pattern with Book One, Participant 5's overall aboutness determination process was one of the most straightforward and consistent of all the participants in the study. His process for Book One is illustrated in Figure 7.6: Pearl Growing With Chapter-Based Reinforcement. His process for the second and third items is illustrated in Figure 7.2: Pearl Growing.

Participant 5's linear examination of some of the chapters in Book One was not significant or particularly helpful. Its use was focused on his personal interest in the content and a curiosity about the approach the author took in the individual chapters. These explorations of the chapters, however, did not add to the substance of his pearl-grown understanding. His exploration of the chapter-level aboutness, however, did reinforce the pearl-grown aboutness already developed, and satisfied his curiosity. The researcher interrupted Participant 5's examination of Book One because of the extended time he was spending on the first item and because his focus had shifted to critiquing the author's political views. "I got away from the aboutness and was more interested in what she had written." After the participant had critiqued several chapters, the researcher asked if he knew what the item was about, to which he responded:

Yeah, it's apparently an argument to get people involved, and using various topics that she feels would motivate Generation Xers to actually participate in politics.

When asked how long he had known what the book was about, he replied: "Ages, I guess ... probably right after I read her introduction." Participant 5's examination of the first item continued far past what was necessary for aboutness understanding, and his aboutness statement did not go beyond his understanding based on the introduction and conclusion; it did not reflect the aboutness of the individual chapters.

This book is an argument for greater involvement of the X generation (20-30 year olds). She discusses 17 topics to motivate the youth of America to get involved in politics.

For Book Two, the participant found that the bibliographic features in the front of the item were sufficient to determine the item's aboutness. He did not bother with the chapters at all, and no assumptions of chapter-level aboutness were made. He found the macro-level aboutness from the title and table of contents. In the introduction, he found some additional information to refine and reinforce his assumptions, but he did little more than flip through the conclusion. He stated:

To be honest, on Book Two, it probably didn't take anything more than reading ... *How the Food Industry is Destroying Our Brains and Harming Our Children*. That was all I needed to read. I could have just read that and come up with the same conclusion. If I was doing this in a store and looking at it, I would pick it up and make that conclusion on that book.

When asked why he bothered looking at the introduction and conclusion at all, he stated, "It was what I was supposed to do." He wanted to fulfill his responsibility as a study participant, and was not comfortable writing an aboutness statement just from the title and the table of contents.

This book is about the destructive nature of the American diet. Too much sugar, artificial ingredients, etc. are damaging our brains. She offers a program of diet and recipes.

For Book Three, the process was different in that very few assumptions of macro- or chapter-level aboutness were made. He found a broad core notion of aboutness in the beginning of the

process and added some additional layers of complexity, but ultimately his examination of Book Three was one of refining or sharpening his initial impressions of the item. He was particularly quiet during this examination.

I was really having trouble grasping, with only reading the first and last chapter, where he was coming from and where he was going ... I really had a difficult time getting my head around where he was heading with his arguments. They didn't seem to be following in a pattern. Maybe it was because I was rushing through.

His final aboutness statement, while it covers the basic concepts expressed in Book Three, lacks specificity; it is focused only on the very broadest of concepts.

This book is about the transformation of evil over time and how the concept of evil has become a subject of rational thought. This has resulted in a lack of understanding, according the author, of evil's existence in this age.

Participant 5 was a history major in his undergraduate days, so it is surprising that he did not include *history* or *United States* in his aboutness statement; both are important concepts in the text. He does, however, mention that the item discusses the “transformation of evil over time.” While it is not the same thing, it does provide some indication of the approach.

Participant 6

Participant 6 used two approaches to examining the texts. For the first item, she took a strictly linear approach to the material. She started at the beginning and worked her way through the item by looking at most chapters. The use of a linear approach for Book One was not, according to the participant, her natural approach; it was used primarily because of her assumptions about the research process and her desire to fulfill her role as a participant. When asked if she could have stopped earlier with the first item, she replied:

Yes, I think so. Partly because I didn't like it and partly because it was the first one, I felt like I needed to be more thorough: as part of my process of figuring out what I needed to do in order to analyze the book. And then, after that, you said,

“If you feel like you are done with the book, you can stop.” That gave me permission to not go chapter by chapter and not be as thorough.

Her examinations of the second and third items, in response, were conducted in a vastly different manner from the first book. For these items, she took a non-linear, random approach to the materials. She was more comfortable flipping around through the text, alighting upon whatever caught her attention and sparked her interest. Because Participant 6 had read *The Death of Satan*, another book, *Folklore and the Sea*, was substituted for Book Three. Just as the title indicates, it is a book *about* folklore about the sea; it is not a book *containing* folklore about the sea. The item was a scholarly humanities text like *The Death of Satan*, but the writing was more approachable, the vocabulary was not as academic, and the argument was less complex; it was easier to decipher.

Participant 6 skimmed, sampled, and flipped through the texts. She used the Pearl Growing approach with all three items. For Book One, her approach was more linear and chapter-based, but this changed with the other two books. When asked how she approached the task, she said:

I mostly ... jumped and let my mind catch on things that I found interesting. [I was] skimming or finding words that caught my eye, [following] trails to other things to see if they would be present in the book. I did a lot of skimming and assumption making. I made a lot of assumptions about who the author was; not so much their credentials or what school they went to, but who the author is in terms of their perspective. That’s an important factor about whether I am going to like a book and what I think about it.

For each item, she began her process with an examination of the cover information, but from there, the processes differed. In Book One, using a linear approach, she examined the front matter briefly and then moved to the introduction. She did not look at the table of contents. It was from the introduction that she gained her first insights into the item’s aboutness; this was her sand. After briefly examining the introduction, she began skimming the chapters. At this point,

her intense dislike of Book One began. She read the abstracts and titles on the chapter title pages, and she examined the first sentences of various sections in each chapter, commenting on the content throughout. After four chapters, she skipped ahead to Chapter 9. She skimmed a few more chapters and then jumped to the last chapters in the book, stating, “Chapter 17 ... is thankfully close to the end.” While she did look at individual chapters, she did not use Puzzle Building to determine macro-level aboutness. Throughout her process she synthesized the material and increased the complexity of her pearl. Her examinations of the chapters helped to reinforce her pearl, but also increased her dislike of the item. The final pearl may be a bit more nuanced from the fuller examination, but she did not incorporate many of the individual discrete details collected into her overall aboutness picture. When asked what stood out to her in the texts, she replied:

In *We've Got Issues*, definitely words and pop culture references popped out and unfamiliar concepts pop out at you. If somebody uses big words, then that is going to make me work harder.

With Book One, Participant 6 demonstrated how much the subject determination process is grounded in and affected by personal attitudes, interests, knowledge, and beliefs. Determining aboutness is an interpretive activity. Participant 6 showed this more clearly than any of the other participants in the study, all of whom aimed for some degree of “objectivity” in their analyses. This participant viewed the activity she was undertaking as a very personal one and did not even attempt to feign neutrality or objectivity.

It is interesting that the task is to summarize what this book is about; [but my analysis] is much more about what I think about the subject matter rather than the actual contents of the book itself ... I am much more interested in the political thoughts that this is bringing up in me—how I disagree with the contents of the book—than the actual content ... or how my experience differed from that book. I come at a thing from a very personal perspective.

She did come to the analysis from a very personal perspective. Throughout her analyses, she was primarily concerned with what she thought about the books. It was not so much an examination of the item's properties or aboutness, but more of an assessment of how she felt about the content, the political viewpoint of the author, the design of the book, the tone of the writing, the level of the language used, the credibility of the author, and various other aspects. The following statements illustrating her feelings about the book were made during her analysis of Book One:

- “If I was in a bookstore, I probably would put this down.”
- “This chapter is really going to bother me, so I am going to skip it.”
- “I really hope this book didn't sell very many copies.”
- “I assume that she, as an author, has a political perspective. In looking at the book I am not getting a sense of what that political perspective is or what she is trying to accomplish.”
- “It's got a big font, which sometimes actually puts me off a little bit.”
- “Tax moola? I don't mean to keep harping on the tone, but it's annoying.”
- “I am not sure that twenty-somethings even know who Ward and June Cleaver are or *Leave It to Beaver*. That's why I don't believe her as a credible source/representation and being part of that generation.”
- “Is she making stuff up? I have never heard that before.”
- “That encapsulates why I don't like her. I could go on to some kind of political diatribe, but I won't. It is coming from such an assumption of upper middle class privilege and that is imposed on me partially because of her picture. She looks too clean to have worked her way up. The expected audience is younger people who come from a middle class, upper middle class background. That is who she is trying to relate to at the same time as pretending to be the everywoman.”

Surprisingly, despite the highly subjective approach that Participant 6 took in determining the aboutness of the items, she believes that the process *can* be somewhat objective given the right items and an expectation that the descriptions will be broad. She stated:

I think with these three books, yes [it can be objective]. If I had to sit here and say what the last book I read was about, well the title was *Folklore and the Sea*, and that describes what it is about: man's myth-making about their use of the ocean. *The Crazy Makers* is about nutrition; nutrition would be the one key word. And the first one is about youth and politics. That one is a little bit fuzzier because—it is definitely about politics—but I wouldn't call it theory or anything like that. I think the descriptive words might be a little different, but I think most people could look at these three books and say these books are about those subjects.

Many of the issues this participant raised were addressed only tangentially by the other participants. When asked whether knowing the author's point of view was necessary to understand the aboutness of the item, Participant 6 replied:

I think understanding or getting a sense of where the author is coming from and their perspective helps me to determine the presentation of the information. And the perspective of the author naturally skews how they are presenting the information because they obviously have opinions, and getting a sense of what their opinions are, at least to a small degree, helps me to understand the context of the book.

When asked about font size and the author's language affecting her understanding of the aboutness of an item, she replied:

Fonts help me to determine how serious it is in presenting the subject.... The presentation and the grammar validate my trust in the information that is being presented.... [The first book] might have really great information, but that doesn't matter to me because of the conversational, glib tone. That seems directly connected to what the book is about.

Despite her obvious distaste for Book One, Participant 6 easily determined its aboutness. Not surprisingly, her aboutness statement stood out from those of the other participants; her statement lacked any attempt to remain objective. It expressed not only her understanding of the aboutness, but also her own thoughts and feelings about the book.

The author attempts to introduce the reader to contemporary political issues. While the issues were relevant before the 2000 election and will continue to be relevant for decades, perhaps centuries to come, the grounding of the text is the 2000 election year. It is rather date- and time- specific. There isn't much depth to her analysis of the issues and limited amounts of context. She doesn't present her perspective, except that I inferred that she was a 20-something, upper middle class, privileged white woman. It was obviously directed toward the apathetic youths, ages 16-26, who reportedly don't care about politics or believe it concerns them. Its purpose was to reach this demographic and encourage them to get involved. I found it rather glib and off-putting, and very specific in scope of audience. There are large segments of the youth demographic that she has no relevance for.

Her examinations of the second and third items were less difficult because neither of those items elicited the emotional response that Book One did.

Participant 6 used a far less linear process for the second book. She began with the cover, but moved to a random page within the text. She landed on page 78 and noticed statements about Omega fatty acids and breast-feeding babies. She went back to the front matter to look at the title and subtitle, which she deciphered for her grain of sand. She again ignored the table of contents. She scanned a few chapters and then moved to the introduction. Throughout the examination, she was searching for information to help her understand the author's point of view and qualifications for writing the book. From the introduction, layers began to be added to the grain of sand. She developed both micro-level and macro-level assumptions about the text, which were reinforced and refined through additional exposure to the content. This continued until she had enough information to complete her pearl.

The book explores the connection between the health of the brain and nutrition. She provides information on supporting brain health throughout all stages of life: prenatal, childhood, adolescence, etc. She analyzes what is missing nutritionally from most diets and how to remedy that. Recipes are also provided.

Participant 6's examination of the final item was also conducted in a non-linear fashion. She began with the title page and the introduction. For the first time, she looked at a table of contents. She stated that she found the topic of this book to be very interesting, so she wanted to look at the table of contents to get a better idea of the structure of the book to get ideas of where to look next. While she did question this author's political perspective and point of view, this was the only item that Participant 6 fully trusted in terms of the content's validity and truthfulness. "I gave this book much more an instant assumption of credibility than the other two that I looked at." Part of that credibility came from the quality, level, and tone of the author's writing.

The book is a presentation of the relationship of man to the sea. It explores this through myth and tale as well as the more concrete relationship of shipbuilding. It seems to be delving into the larger human experience of loss, mystery, the vast unknown as well as the more fathomable concrete expression of man exploring or making a living on the sea. I wouldn't say that he uses this relationship as a mere metaphor but that the issues of dealing with the unknown are inherently explored when man expresses his relationship to nature or the sea. It seems to provide a presentation of the aspects of folkloric expression rather a philosophical analysis of the larger meaning.

Overall, her process was successful, even though her aboutness statements reflect far more of her personal concerns than is traditionally found in library cataloging. Her understanding of aboutness is clear; however, she has taken what is very much a part of every analysis—the act of interpretation through the lens of self—and made it more evident. Instead of trying to be objective, she embraced the more subjective aspects of the process. Whether objective aboutness statements are “better,” more “correct,” or more useful remains to be seen. When asked whether her personal focus on the material was a help or a hindrance in examining the items, she stated:

My approach takes a lot more time. It rises from a different point of view—whether I would like it. If it is focused on aboutness, then I probably would go to the contents, and then do a little compare/contrast between the chapter titles and content. How does she uphold or support that statement? I look for relationships and interconnections; that flavors what I think the book is about.

Her process for Book One is illustrated in Figure 7.6: Pearl Growing With Chapter-Based Reinforcement. Her process for the second and third items is illustrated in Figure 7.2: Pearl Growing.

Participant 7

Participant 7 primarily used a two-ends approach to examining the items. She did jump into the middle of the text from time to time to verify some of her assumptions, but she focused mostly on skimming and sampling the front matter, the tables of contents, the introductions, and the conclusions. She was very quick to make aboutness assumptions from looking at the covers of

the items. Her initial impressions were often wrong, but her second assumptions, made after looking at the introductions, were usually on target. This participant suggested that the examination of the physical item was like peeling onions. “You start with an outer layer, the cover, and peel that back, and move to the core of the onion.”

Her overall approach to determining aboutness was similar with all three items. She began with an examination of the title and cover art. She described her initial impressions of what the book was about, and made assumptions about the age, tone, and audience for the work. These initial ideas were sometimes off the mark, but her understanding quickly changed to reflect the actual content. In the first and third items, she found little of use in the acknowledgments and dedications, but in Book Two, these provided valuable information for her process. She proceeded to the table of contents, where she again interpreted information and added it to her developing understanding of the aboutness. In some cases, an examination of the table of contents required a restructuring of her entire notion of aboutness; in others, she simply refined her assumption to incorporate one or two additional concepts. After that, she skimmed the introduction and briefly looked at one or two chapters. The introduction allowed her to readjust her aboutness assumptions. She stated that, while it is possible to get a sense of the text from the bibliographic features found in the beginning of the book, one cannot stop there.

I knew what the book was about, but as I skimmed, I was fine tuning what the book was about. It was a re-focusing. The skimming adds the details of how the aboutness is implemented. I have a better understanding or feel of the whole text.

After the introduction, she turned to the conclusion for any addition information or closing thoughts of the author. She refined her interpretation a final time as she wrote her aboutness statement. She stated that she knew it was time to write her aboutness statement when she had looked at the important textual features.

I would stop and write my aboutness statement when I felt like I had already looked at everything I wanted to look at: my table of contents, my beginnings and endings of books, and introductions and conclusion. If I wanted more understanding, I would have dug more at the text. I definitely felt I had a general understanding. I can say what this book is about and I have looked at everything I am going to look at.

When asked to describe her overall process she stated:

I looked at the cover first; then made my assumptions from the cover. Then opened up to the title page, looked at the table of contents, the introduction, and conclusions. I looked at the chapters themselves last. I intended to only use those as a way to clarify.... I was trying to just pick up key points. In the chapters, I would read the first paragraph and the last paragraph. You try to put all those pieces together to discover what the book is about.

Participant 7 used both Pearl Growing and Puzzle Building in her approaches to the items. For Book Three, she used Pearl Growing to develop the frame for Puzzle Building. For the first two items, she used Pearl Growing, but in a two-stage or two-pearl process. She took an initial assumption and let it grow and evolve into a pearl, but as she continued to examine the material, she found that the pearl was not quite complex enough. She then continued to collect data to refine her notion of the aboutness. Once this more complex pearl was complete and reinforced, she wrote her aboutness statement. Participant 7 used two-stage Pearl Growing for both Book One and Book Two. Her process, while quickly executed, was more complex than that of most of the other participants.

Like many of the other participants, Participant 7 was searching for a statement of the author's intent or purpose, and her examination of the item was sometimes guided by her own personal interests. When asked about what stood out to her, she replied:

Words that were proper names, capital letters pop out in the middle of sentences, things in quotes, that sort of thing. That's what I was seeing a lot of ... I guess my own personal interests ... mostly things I was already familiar with.

When asked about what she was looking for in the items, she stated:

I was looking for sentences that said things like, “This book is about ...” or “I wrote this book because ...” or “The purpose of this book ...” I looked for very clear, definite statements like that from the author. I looked for those in the introduction. In the conclusion, I looked for more general, sweeping statements. I also looked at the section headings. I was interested in proper nouns. Mainly names stuck out.

Her processes for the first two items are illustrated in Figure 7.5: Double Pearl Growing.

For Book One, Participant 7 began the process with two incorrect assumptions. When looking at the cover, she stated:

This book strikes me as being older, maybe from the late 70s or early 80s because of the colors, but that could be an assumption on my part. From looking at the title it sounds like some sort of self-help book on maybe how to not stress, or how to get to what is important in your life. There are all these symbols on the cover that look stressful like the skull. But then, there are things that don't look stressful, like corn.

She quickly saw that her assumption about the age of the item was incorrect, as was her assumption about the title and the type of book that was being analyzed. By the time she finished skimming the table of contents, she had a much better idea of what the book was about. She focused first on the tone and language: “What this sounds like is a satire or some sort of commentary by a comedian on American society and the way ... I bet it's funny.” Then she examined the content. While she does not include the phrase “Generation X” in her aboutness statement for Book One, she does incorporate the concept by using the phrase “young adults.” She does not include any of the discrete concepts described in the individual chapters or the notion that the author was encouraging Generation X to vote in her aboutness statement.

This book is about attempting to educate and interest young adults in their 20s and 30s in the state of the American political system as well as the culture and direction of the country. The author uses humor and plain language to describe these issues and engage the reader.

Her analysis of Book Two was particularly remarkable. She created a complex aboutness statement for this item from looking at the cover, title, acknowledgments, and dedication only.

She developed an understanding that reflected the overall contents of Book Two using a minimal amount of information and through unusual sources for aboutness data. For example, she was able to extract information pertinent to the aboutness from the acknowledgments.

I am going through the acknowledgments to see if she has thanked any one in particular.... So she's going to talk about nutrition in the book. She's thanking some doctors: "Your knowledge of nutrition and medicine was invaluable." Thanked some other people. Then, she thanks God "who designed the most wonderful food, perfectly suited to nourishing our brains and our spirits." From that it seems like she's going to talk about eating a lot more natural food, not the processed foods.

She continued to develop her understanding with a further examination of the table of contents and the introduction. Her ability to extract information from these features quickly to create a fairly complete, complex aboutness statement was impressive. After reading the front matter, the acknowledgements, and the dedication, her understanding of the aboutness was described as:

She's going to talk about eating a lot more natural food, not the processed foods; maybe raw foods. Things that are not necessarily manufactured, but that the earth produces.... It sounds like she's going to talk about the effects of what she considers poor nutrition on mental health. Most of these problems are going to result from poor nutrition.... It sounds like she is going to focus a lot on kids and a lot on how what you feed them affects their brain, mental issues, and I would also deduce that she's going to talk about the process for smarter children, having faster reflexes, synapses.... So this is definitely about food and definitely about nutrition and definitely about children and mental issues

After skimming the introduction, she stated that she had a fairly good idea of what the book was about. She stated:

I have a pretty good idea of what this book is about, but I am still going to go ahead and just flip through some of the chapters. Right now, at this point, I think this book is about the author's opinions of how the food industry causes a lot of the health problems and mental issues in America. The author believes that children aren't getting the proper nutrition and that processed food is part of the problem. I will try to be more concise in my aboutness statement.

Her final aboutness statement for Book Two read:

This book is about the effects of poor nutrition, specifically processed foods, on mental health and development. The author chronicles each stage of life and how poor nutrition affects it. It is also a discussion of the American food industry and its problems.

She had refined the statement considerably, but the basic components were there before she had even read the introduction to the book.

Her examination of Book Three also began with an incorrect assumption. From the title, she assumed that the work was a mystery or a novel, but when she reached the title page, which contained the subtitle, she refined her first aboutness assumption. After examining the table of contents and the introduction, she had developed a pearl-grown understanding of the work's basic aboutness. The complexity of the bibliographic structure and of the author's argument caused her to make a switch to a Puzzle Building process. Unlike some of the other participants, her Puzzle Building was not chapter-based. It was focused on collecting discrete pieces of the content, which she put together at the end of the process to create an aboutness statement.

The last one, *The Death of Satan*, I had more trouble with than the others. It didn't seem as straightforward and it seemed to be written on a much deeper, heavier level than the other two. So, I read a lot more of the text in that book. She stated, "I kind of get the general idea that he's going to talk about evil and its history and its current presence in America. I am not sure exactly where he's going to go with that." Unable to grow the pearl further she began to add discrete pieces of the text to the puzzle as she encountered them. Her process for Book Three is illustrated in Figure 7.7: Non-Chapter-Based Puzzle Building With Pearl-Grown Frame. Her final aboutness statement for Book Three reflects a refined version of her original pearl, with one or two additional concepts added.

This book is about the history of evil in American culture. The author tracks the history of the devil through his inception, via the Bible, into modern times. Evil is discussed in forms other than the devil, but the author refers to them as the same force.

While the item does not address “the history of the devil through his inception via the Bible,” her aboutness statement covers the basic concepts in the work except for the concept of American literature.

Participant 8

Participant 8 examined the texts in a linear fashion, beginning at the cover and skimming his way to the index. His use of the index was unusual among the study’s participants. He used the index to see which concepts appeared most frequently in the items, and used these to reinforce his assumptions of the aboutness. In Book Two, for example, he states, “The biggest sections in the index: adults, brain, children, fats, food, infant formulas, lunch, milk, nutrition, protein, recipes, sugar, teenagers.” He also used categorizing much more than the other participants, using it as shorthand to identify the contents of the works. He would frequently use broad, discipline-based categories, such as *political issues*, *nutrition*, *religion*, and *philosophy* to place the works in a container, and therefore in context.

Participant 8’s approach began with his examination of the cover and title information. This provided an initial assumption from which he could begin the process. After examining the cover, he looked through the front matter, and then examined the information about the author’s other writings, the dedication, the acknowledgments, and the table of contents.

Starting as I did from the title and the table of contents, then I have a general idea of what the book is about, whether it is politics or food, then I can narrow it down from there.

From there, he would examine the introduction briefly. Unlike many participants, he chose to spend very little time mining information from this source.

It might be force of habit, but in my experience, there isn’t as much useful content information about the book itself in the introduction.... It helps you understand the

author's biases or the author's purpose, but if you want to find the chunks of the argument, you are going to have to go to the content.

Once he finished with the introduction, he examined each chapter. He looked at the chapter's title, the abstract or opening quote (if present) and the section headings, taking notes throughout. He made sure to look at each section heading, and sometimes at the first sentence in the section as well. In Book Three, which contained no section titles at all, he always read the first sentence of each section.

Then I am looking at chapter headings and main ideas of paragraphs to find the main ideas of the book, which will then come together as a main idea for the book: what the book is about.

After skimming all of the chapters, he looked through the index to see which index entries were the largest. When he reached the end of the book, he stopped examining the item. "I flipped through the entire book now." His final determination of aboutness came from a review of his notes, and reducing the text of the notes by determining a macro-level proposition that would cover all of the concepts found in his notes. This process is straight out of Beghtol, although the process she describes is based on an entire text, whereas Participant 6 was using it to condense his notes into an aboutness statement.³¹⁵ The principle, however, is still the same.

During the examination of the text, he collected many details. When it came time to determine the aboutness, he grouped similar chapter topics together under a broader category. He then found an overarching category that would account for all of the sub-categories. That final overarching category became his aboutness for the entire item. For example, in Book One, he began by identifying important concepts from his notes:

It is about political issues especially as they pertain to the 2000 presidential election. It includes information on the current state of America, American politics, some government programs (like Social Security, Medicare), taxes, welfare, youth violence, environmentalism, things like that.

³¹⁵ Beghtol, "Bibliographic Classification Theory and Text Linguistics," 89-90.

He grouped those concepts together into categories.

- taxes, Social Security, Medicare
- foreign relations, environmentalism
- education, youth
- politics, politicians, personality

Then, he named them by determining the broader category that would cover each grouping.

- taxes, Social Security, Medicare—**government domestic finance**
- foreign relations, environmentalism—**global involvement/altruism**
- education, youth—**domestic policy**
- politics, politicians, personality—**political candidate selection**

This grouping of concepts is how he initially provided his aboutness statement. When asked to put his understanding into the form of a sentence describing the aboutness of the work, he responded with: “This book is about current political issues, especially those involved with the 2000 presidential election.” It is a very broad overarching statement; however, it does cover the content of the work. His statement, however, excluded the concept of Generation X. When asked why he left the concept out, he stated, “Just because it is written with a particular audience in mind, does not necessarily mean it is about that audience or that it should be read strictly by that audience.”

When he was asked to describe his overall process, he stated:

The overall approach was to look for clues on what the books were about from the actual content of the material, what the book says, but also from the structural or external information about the book [i.e., about the author, table of contents, index, title, chapter headings].... I spent more time on what I would define as the content, just skimming through the books and the chapters to see what they say. I am not sure that I got as much helpful information from the actual content as I did from the index, the chapter headings, some of the insets, and chapter blurbs or descriptions. I guess, given another item to look at, if I had a more limited time-frame, I would focus more on the external aspects rather than the content itself.... It depends on the work and the structural elements; making sure that the content really does match up with what the structural elements say.

When asked whether his brief aboutness statements reflected his full understanding of the aboutness of the items, he stated:

I think that taking a book and boiling it down to one statement is not going to cover everything it is about or to comprehensively state what it is about. I think that is the problem in this process. I think by skimming through the content, I have memories of specific elements about each of the books. Those are all synthesized into a whole. That isn't expressed in the statement. The statements consist more of general statements or subject areas that each book concerns, but that doesn't represent my entire understanding of the book.... The things to include are the general information that is going to point the reader towards what it is about. If they want to know more, then they can read the book.

His process is illustrated in Figure 7.8: Chapter-Based Puzzle Building With Pearl-Grown Frame.

Participant 8 primarily used a chapter-based Puzzle Building approach to the three items, though he did use some Pearl Growing in the beginning of each item to create the puzzle's frame. Book One's examination began with an assumption of the broad macro-level aboutness, summed up by the category *political issues*. Once that pearl was grown, it was used as the frame for his puzzle. The process was primarily anchored by his examination of the chapters. Because Book One has 17 chapters, each addressing a different topic, his focus was on identifying the aboutness of each chapter, grouping his ideas of the aboutness into categories, and reducing his notes into a macro-level proposition of aboutness. His puzzle pieces primarily reflected the content of the chapters, although some pieces were related to the author's point of view and political perspective.

Book Two was examined using the same basic process, but it was a little more difficult for Participant 8 because of his dislike of the material. He distrusted the author's views on nutrition and its effects on mental health. His background in psychology made him wary of the claims made by the author as to the effect of poor nutrition on behavior.

I think with the second book, more than the others, I had trouble focusing on figuring what it was about because I disagreed or had problems with the content and the statements the author was making. Because I didn't regard it as a reputable or reliable book, I tended to write it off more, disregard it, and not take it seriously.

By the time he reached the first chapter, he had developed his pearl-grown puzzle frame.

I presume either there is some medical information stating how the food industry is actually, something in what we are eating is actually harming our brains and our children somehow.... It suggests that the author may be trying to lay some blame that Americans are unhealthy because we don't have any choice about what to eat, so we are condemned to eating things that are horribly unhealthy.... It looks like the author is blaming the food industry for these things.

To that frame, he added numerous, discrete details. He continued to examine the chapters by looking at each of the sections, during which he discovered that the item was structured so that each chapter addresses a particular stage of human development. At the end of the process, he reduced the concepts into the following bullet points:

- Nutrition (including diet, vitamins, and minerals)
- Food (including recipes, homemade, organic, preparation)
- Human growth and development (especially brain development)
- Mental disorders (specifically depression)

These were transformed into his final aboutness statement: "This book is about food and nutrition, especially in regards to human growth and development, specifically brain development." This statement left out all references to the effects of manufactured foods and poor eating choices on brain health and behavior. His broad statement, in an attempt to be objective, is incomplete. He purposely left out what he considered to be the author's agenda from the aboutness statement, though others would refer to it as the author's thesis statement or purpose. He states the process can be objective, if you leave out what author is trying to persuade you to think, leaving in the objective facts of the text.

I think that is helped by not reading the book. That way you are not getting as much of the author's persuasion as you would by just reading it. By skimming,

you are just pulling out the main ideas, so you can get the gist of the argument without the power and the force of it, which might make you lose some of the objective focus. For example, “*The Crazy Makers* is about how organic foods are good,” instead of “*The Crazy Makers* is about nutrition, diet, and organic food.” It leaves the value decision up to the reader.

For Book Three, Participant 8 used the same process. The text of Book Three caused some difficulties, because his process, which included spending very little time skimming the introduction, left him at a disadvantage with the author’s more complex argument. He resorted to the use of extremely broad concepts and categories to summarize the item’s aboutness. He stated: “This book is about philosophy, religion, American history, evil/Satan/sin, and sociology,” which was refined into:

This book is about the philosophical history of the development of the idea of the devil and evil through the progression of human society and history, especially American history.

Participant 9

Participant 9’s overall approach entailed relatively quick examinations of the items. This participant used two different approaches when examining the books. For Book One, she used the two-ends approach. She began with an examination of the cover and title information, after which she read the table of contents. From there, however, she jumped to a chapter whose title caught her eye for a brief moment. She then flipped randomly through the book and glanced at the end of the book. She moved to the introduction and read the first sentences, a few sentences in the middle, and then the last sentences in the introduction. She wrote her aboutness statement after that. She was very focused on the task and very quick. For Book Two, she used the linear approach, but did not concentrate on each chapter. She began with the cover and the front matter, and then focused primarily on the introduction. By the end of the introduction, she had developed a strong understanding of the macro-level aboutness. She flipped through the chapters

looking at the text in various places, often skipping as many as 50 pages at a time. She stopped flipping occasionally to read a section heading or skim first and last sentences of paragraphs to reinforce her assumptions. She did not look at the conclusion in this item. For *The Death of Satan*, she again used a modified two-ends approach, examining the introduction and the conclusion, but looking at a few random passages in the middle of the text afterward to confirm her assumptions. Participant 9 primarily skimmed the books, but also spent a considerable amount of time mining the pages for words that stood out. She also read a large number of passages from the text. When asked to describe her overall process, she stated, “I pretty much came up with what I thought the book was about fairly early in the process and then looking through the text just reinforced it.” Her examination of the physical items was described as:

I usually tried to look to see if there was an introduction or a table of contents or a conclusion. I find those usually give you an overview of what the book is going to be about.... For the last two, I looked at the introduction and conclusion first, then just leafed through the book, looking at passages I thought would be illuminating.

When asked what she considered to be illuminating, she stated, “what caught my eye were statements that reinforced what I already thought, stuff about Gen X or politics and young people caught my eye, or things about nutrition and processed foods caught my eye.” Identifying illuminating passages is not always easy, however.

For the last book, I didn't have a very good process for looking at that. I didn't know what I was looking at or looking for, so when I was examining the book, I felt a little lost. There were a few things that I looked at, but more because I had read *Invisible Man* and I liked that book. [The last examination] was less focused.

Participant 9 did not seem to be searching for any specific types of information or following her personal interests to any great extent. When asked if she was looking for anything in particular, she replied, “No.” Later, she stated that she probably looked for familiar concepts. When asked why, she replied:

I think I looked for stuff that I was already familiar with for a couple of reasons: to get my bearings and figure out what they are about; and because there was a time limit and because I was being watched. So, I wanted to figure it out, try to look at the stuff I was familiar with to have guideposts.

When asked what stood out to her, she replied, “My eye would go to the words that I had already isolated that would be relevant to the book. Also, anything in bold, anything offset, tables, those things caught my eye.”

Participant 9 used Pearl Growing to analyze the first two items, while she used Puzzle Building in her analysis of Book Three. Her Pearl Growing for the first two items involved two-stage pearls. She began with the grain of sand and quickly developed that into a fairly complete pearl at an early stage. When she encountered more information at a later stage, however, she added one or two additional layers to the pearl to complete it. Both of the first two items were fairly straightforward examinations. Her aboutness statement for Book One covers the concepts of Generation X and politics, but does not include voting, political involvement, or any of the specific issues covered by the chapters.

The author has written this book as a guideline for Gen Xers to understand the political environment. She uses pop culture references throughout the book to keep the reader’s attention and to illustrate her points.

Her aboutness statement for Book Two is more specific. It covers much more of the content, although she does not mention brains in her description.

The author feels that our diet is much to blame for how we feel. She blames poor nutritional choices such as excess caffeine, lack of fresh fruits and vegetables and over-processed foods for problems in our mental health, such as tiredness, depression, and anger. She devotes different chapters to infant, baby, child, adolescent, and adult nutrition. She also gives suggestions in the back of the book for how we can eat better and feel better. She gives recipes and resources for nutritionists and health food stores.

Her overall aboutness determination process for the first two items is illustrated in Figure 7.5: Double Pearl Growing.

For Book Three, she had difficulty using the strategies that had worked for her in the first two items.

I tried to find the point where he would say why he wrote the book and what he wanted the reader to get from the book. I never really found that; it wasn't as concrete for me.... I never came up with a good hypothesis of what the book was about. I was kind of looking at the book blindly. I didn't have a good search strategy.... I didn't feel that by skimming it that I could get a good idea of what the book was going to say.

In response to the differences in the third item, she employed a non-chapter-based Puzzle Building process to find discrete pieces of the text that she attempted to fit together at the end of the process to create a workable aboutness statement. When asked if she knew what the book was about, she replied, "I think I don't exactly know what the book is about, and when I try to explain it, I am oversimplifying it." Her aboutness statement for Book Three contains the basic elements of the content although she does not include the concepts of history or literature. She also does not go into as much detail for the modern conception of evil as she did for the early notion of Satan.

The author traces the idea of evil in America from the beginning settlement to the modern age. Satan was a presence that was felt to be everywhere. As society has become less religious, this presence is no longer acknowledged. Evil is now seen in more complicated terms.

Her process for Book Three is illustrated in Figure 7.4: Non-Chapter-Based Puzzle Building.

Participant 10

This participant had a very consistent, linear approach to analyzing the materials. When asked whether her approach was typical for her, she stated:

Because you said you wanted to know what the whole book was about.... I felt obligated to look at each chapter. If you had said, tell me what this book is about, I *might* have just looked at the introduction and the conclusion and that's it. I felt I needed to hit a little bit more.

It cannot be known for sure whether she would have handled it differently if the instructions had not mentioned the “whole book.” Her overall approach began with an examination of the cover and title information. She paid particular attention to the cover illustrations of the first two items, although little aboutness information was extracted from these sources. These did provide some understanding of the tone and level of the work, however.

That first book, you could look at the cover and you could easily get a sense that it is going to be fun. It’s going to be pop culture, whereas with the last book, it is going to be much more serious.

She examined the front matter and the verso of the title page to note the publication dates and the other titles written by the authors. She developed her first assumptions of aboutness from the chapter titles found in the table of contents. This was most successful when examining the first two items; the chapter titles in Book Three were not generally considered helpful by any of the participants. Following the table of contents, this participant skimmed the introductions; for each item, this was her source for developing an assumption of macro-level aboutness. She took notes to record any pieces of information that she felt were relevant to the aboutness. She then examined each chapter in order until the end of the book, at which point she wrote her aboutness statement. Overall, she tried to do the same thing with each item, but that became more difficult with the third book. When asked to describe her process, she stated:

I was attempting to figure out what the whole book was about—without actually having to sit there and read it—by looking at things like the table of contents and flipping through the book. I was trying to gain a quick idea of what the author was trying to say. I think by looking at broad things like the title and trying to find out information about who the author is so you know where they are coming from, it will help you figure out what their position on their topic is. I think looking at the opening sections and any closing remarks is a good way of quickly finding what a book is about. I think I was a little more thorough than I [needed to be].

When asked if her process worked well for finding the information she needed to determine the aboutness of the items, she related a story her father told her in high school about the nature of writing.

An author writes a book and starts out with just an idea, and then he builds and expands and multiplies that idea into a book. A reader does the opposite; you digest it all, break it down to that original concept—what is this book about. When we are taught to write, we are taught to write in a structured sense. So, we do have opening paragraphs and conclusions. So, you can sometimes, skip all the fluff and just target the basic concept that the author is trying to get across. But with some books, it is going to be easier because the issue is not as complex or it is much more straightforward; whereas with some books, it is going to be very difficult because you need all those little steps along the way to understand the overarching theme.

She felt that Book Three reflected the latter type of book, i.e., a complex and detailed argument.

She felt the overall process was one of reducing the amount of text to get to the core argument or thesis.

It was definitely a process of decreasing it. It was definitely taking several pages worth of information and just trying to figure out what the main stuff is; just taking what is most important out of it. I think, you could say physically there are lots of words, and you are just trying to get a couple of words out of it. Also, there are lots of ideas, ranges of topics, like the first book, where each chapter was a different issue. I was trying to figure out what the overall issue was or the overall point. In the second book, there was lots of information about the specifics of diet and what it is doing to the brain, but I was trying to figure out what was your main position. I think it was definitely reducing all of it, especially the last book; he made so many references to so many different things. [He] almost never stated his position directly.

Participant 10 used Pearl Growing in her examination of Book Two, but combined Pearl Growing with Puzzle Building when she analyzed the first and third items. In these items, she used Pearl Growing in the preliminary sections of the books. This allowed her to establish strong assumptions of the macro-level aboutness, which could be used as the puzzle frame. She then conducted an extensive examination of the chapters using the Puzzle Building approach. In Book One, she sometimes used Pearl Growing to develop her puzzle pieces, but most often, she used

extraction to summarize chapter-level aboutness. Her process for the first and third items is illustrated in Figure 7.10: Chapter-Based Puzzle Building With Pearl-Grown Frame And Pearl-Grown Chapter Pieces. For Book Two, after reviewing the front matter, the table of contents, and the introduction, she had a firm grasp of the macro-level aboutness, to which she added layers throughout her examination of the rest of the text. She developed one aboutness pearl, but then found some further information to add to it. Her second, refined pearl was described in her final aboutness statement for the item. Her process for Book Two is illustrated in Figure 7.5: Double Pearl Growing.

Participant 10's examination of *We've Got Issues* was fairly straightforward and without much variation from the model illustrated in Figure 7.10: Chapter-Based Puzzle Building With Pearl-Grown Frame And Pearl-Grown Chapter Pieces. She began her process by developing a pearl from the title, cover information, and the table of contents, which was then strengthened and reinforced by the introduction. This pearl became her puzzle's frame. What followed was typical Puzzle Building in which some pieces were pearl-grown and others were derived from extraction. In the first seven chapters, she spent more time examining the text. While she focused on the chapter abstracts and section headings, she would often read the last paragraph and one or two first sentences in various sections. In the eighth chapter, she began to restrict her examinations to just the abstracts and section headings. By the tenth chapter, she only read the chapter abstracts. "I am going to skip through this because I have a feel for the format now." Her comprehensive aboutness statement included the information from her original frame but also included various puzzle pieces.

We've Got Issues by Meredith Bagby is a critical look at US politics and culture specifically geared toward Generation X. The author presents a range of controversial topics from the economy to education and health care, and poses

many questions to the reader to encourage them to get informed and be involved. The tone is humorous and irreverent with many references to pop culture.

Her examination of Book Two was again linear and chapter-based. Her focus, however, was not on chapter-level aboutness and discrete pieces; it was instead focused on developing the grain of sand into a rich, nuanced pearl by adding layers of complexity to a core idea. The idea of aboutness evolved throughout the process. She began with the title and her understanding that the author was focused on brains. From there, she began to add layers to the sand. She began to make connections between passages of text and the macro-level aboutness. “I can see what she is getting at. ‘You’re making me crazy!’ is referring to that maybe the food we are eating is making us crazy.” After a few more passages, her first pearl of aboutness evolved into: “This is going to be about diseases or harmful effects because of what we eat—our food choices.” She continued to search for more information to flesh out her description. Her final statement is not a list of the pieces that she found in the item, but instead is a statement that reflects her understanding of the item’s aboutness that evolved as the examination of the item continued.

The Crazy Makers by Carol Simontacchi discusses how our food choices are affecting our brains. The author points the finger at the food industry for marketing what she calls “pseudo-foods” to us, which in turn, are destroying our brain and leading to health problems. The target audience is parents, as it contains advice on what to buy and what not to buy, as well as containing recipes.

Her approach to Book Three was that of Puzzle Building. It was very linear and chapter-based, though her initial Pearl Growing stage was more extended than with Book One. It took her a bit longer to pearl-grow the puzzle frame due to the complexity of the argument in *The Death of Satan*.

So, this book is definitely harder than those other books because it looks like, though still very opinionated, it is harder to tell what he is trying to get at. Also, it seems like he is all over the place; bringing in a lot strong issues. So, it is harder to generalize what he is talking about. I will skip through to the end of the introduction and hope that he maybe states his exact point someplace.

It was not until after she had skimmed both the introduction and the first chapter that she was able to collect enough information to establish her pearl-grown frame. From there, it was strictly Puzzle Building with a piece being extracted from each chapter. Unlike her statement for Book Two, Participant 10's final aboutness for Book Three was pieced together from her notes to create the statement. It is less synthesized; it resembles a list more than a cohesive whole. While her statement addresses the major concepts of the work, it does add more detail than necessary in some parts of its chronological breakdown of the text, and omits other concepts altogether, i.e., the examination of how the concept of evil is represented in American literature throughout these periods.

The Death of Satan by Andrew Delbanco examines the role of Satan in American history and how the concept of "evil" has changed. In early American history, Satan's presence kept man moral. In the 18th Century the role of Satan diminished, and the word "evil" was simplified. The fear of Satan no longer kept people doing what they were supposed to. In the 19th Century, sin is irrelevant without fear of the devil and the belief in chance rules how people behave. In the 20th Century, without Satan, evil is a concept that can be manipulated. Evil is not embodied by one person, but becomes a concept, like communism.

Comparing the differences between the aboutness statements created by Participant 10 for the second and third items is one of the best illustrations of the basic differences between Pearl Growing and Puzzle Building. While she conducted linear examinations of each item, her aboutness statement for Book Two shows a synthesis of multiple concepts into one cohesive description of the item, reflecting her Pearl Growing approach. For Book Three, in which she used Puzzle Building, her aboutness statement is a composite of discrete concepts fit together to create the larger picture.

Participant 11

Participant 11 primarily used a two-ends approach to examining the items. She did jump into the middle from time to time to verify some of her assumptions, but she focused mostly on skimming the front matter, the introductions, and the conclusions; in one item, however, she did not look at the introduction at all. She was very quick to make assumptions about the age and type of book from the covers of the items. Her very first impressions were sometimes wrong, but once she got into the text, her assumptions got closer to the actual content.

This participant's process began with an examination of the cover information, from which she developed some initial assumptions about the items. For Book One, she stated, "Based on that title, I am thinking this is some kind of self-help book." This was an incorrect assumption, but she had changed it by the time she looked at the table of contents and the introduction. She attempted to make an assumption of macro-level aboutness from the table of contents for Book One. Quickly though, she realized, "It doesn't look like I am going to get a lot of information from the table of contents because they are all 'cute' titles." On the other hand, for Book Two, the table of contents led to a fairly good initial assumption of the aboutness.

So, it looks like this book is going to be about not only what the food we are currently eating is doing to us, but how to properly feed our kids and ourselves. We are looking at healthy ways and unhealthy ways to eat.

Following her examination of the introduction, which she found to be a key source of rich aboutness data, she examined the conclusion. Between the introduction and conclusion, she conducted the bulk of her analyses. She did look at a page or two of the middle of the text to reinforce her assumptions and to see if something else caught her attention, but these examinations were brief. "I am skimming through a couple of pages just to see if there is anything else that I think I should read through." She then wrote her aboutness statements. This

participant, in general, spent little time peeling the onions, i.e., performing the physical examination of the books.

This participant determined the aboutness of each item using a Pearl Growing approach. She began with the development of an initial assumption of the macro-level aboutness from the titles and introductions. Once these assumptions were in place, her process focused on verification, reinforcing, and refining her assumptions, i.e., gathering additional layers of information until a complete, nuanced aboutness was understood for each item.

I wanted to find out what [the author's] hypothesis was or the reason for writing the book. That's why I looked through the introduction and sometimes the table of contents. Then I went to the conclusion because often they sum up what they are trying to get at in the book. In *The Death of Satan*, that actually worked because he did say in both the introduction and the conclusion what it was about, but it still didn't help me very much.

This, too, is reminiscent of Wilson's purposive approach.³¹⁶ It illustrates one of the dangers of relying on the author to explain the purpose of the book, and his or her intent in writing it. The author might not adequately describe, might misrepresent, or might not be aware of his or her purpose in a particular writing, or the author may aim at nothing in particular. It may also be difficult to distinguish between the author's primary aims and his or her secondary, supporting objectives. The author also may be unable to see his or her successes and failures clearly. While an author may have a specific purpose for writing a book, he or she may not be able to fulfill that purpose; it is not always clear to the author that he or she did not accomplish what was desired.

The aboutness determination process of Participant 11 is illustrated in Figure 7.2: Pearl Growing. When asked what she was looking for when she was examining the books, she stated,

I am looking for statements that begin, "This book is about...." or "My conclusion is...." When I found something like that in *The Death of Satan* I thought "Bingo! That's it!" But, when I read it, it didn't really help me. It was the same thing in

³¹⁶ Wilson, *Two Kinds of Power: An Essay on Bibliographic Control*, 78-81.

the conclusion. He said what the subject of this book was. I thought, “That’s it!” I guess I was just looking for a summarizing statement, nothing specific.... He does mention in the conclusion what it was about, but he didn’t really say it clearly. To me, what I was looking for was the purpose of the book, what the author is trying to do, and what the author wants the readers to do when we read this book. That’s what I couldn’t pick up in *The Death of Satan* from just skimming. To me, I should be able to skim a conclusion and know where he’s going with this book to see if I want to read it.

She started off her examination of Book One with a wrong assumption about the book’s genre, i.e., that it was a self-help book, but quickly found in the introduction that politics was at the core of the text. She had also assumed that the book was much older than it actually was based on the retro design of the cover. Then throughout her examination, she added layers of complexity as she proceeded. In her examination she discovered that, “This book has a lot of satire and a lot of tongue-in-cheek discussion.” When she read the afterword, she had a good sense that, “this book is geared toward Gen Xers to discuss the importance of being involved in politics,” and that the author has “a lot of her own opinions in this book as well.” She ended the process with an examination of a few chapters to reinforce her assumptions.

I am skimming right now through the chapters just to see if there is anything, since each of the chapters has a few questions at the beginning of it. I am getting an idea, a flavor of the book by reading those questions.

Her aboutness statement for Book One adequately covered the concepts that were important in describing the macro-level aboutness of the item, but it also contained wording to indicate the tone of the work, i.e., the words *colorful* and *entertaining*.

We’ve Got Issues is a colorful look at the important topics that would affect Gen Xers decisions on voting and entering politics. The goal of the book is to provide an entertaining read of most pressing political issues of our times in a manner appealing to the X generation.

For Book Two, Participant 11 had a basic understanding that the item was about food from the cover and title information. She made an association between the book and the documentary

Super Size Me, which had been popular earlier in the year. She began again with the front matter. After which, she read the dedication; this time, she felt that she gleaned valuable information from that source. “This tells me what she thinks about the food industry.” After reading the table of contents, she stated:

So, it looks like this book is going to be about not only what the food we are currently eating is doing to us, but how to properly feed our kids and ourselves. We are looking at healthy ways and unhealthy ways to eat.

Interestingly, she did not mention brains, despite that five of the eight chapter titles she read aloud included the word *brain* in their titles. Her final aboutness statement also failed to mention the words *brain*, *mental health*, and *behavior*. It did, however, contain a statement of the item’s form/genre, something that was rarely mentioned by other participants. She also mentioned the contents of the appendix in her statement, as well as the recipes and the bibliography. While all of these are helpful, the missing concept *brain* ultimately makes the statement less than adequate.

The Crazy Makers is part documentary and part nutrition/diet book. The author describes the effects poor eating habits have on our children, teens, and into adulthood and offers suggestions for healthy eating. She also provides recipes as well as bibliographies for her research, for additional cookbooks, and phone numbers for nutritionist referrals.

For Book Three, the process was the same, but she encountered difficulties due to the complexity of the text. When skimming the material, she encountered one or two statements by the author describing the purpose of the book. In the introduction, she read:

How this crisis of incompetence before evil came about and how it has made itself felt in the United States, whose culture is the dominant one of the West is the subject of this book.

She stated, “That’s worth reading again,” and then read it again. Later in her examination, she stated, “I found the one sentence that said what this book is about, but it doesn’t really.” She kept searching for additional information. She went back to that statement twice more before the end

of the analysis. At the end of the introduction, she read another statement regarding the purpose of the book: “The pages that follow are an attempt to tell the story of this reticence—how it began, how it grew, and what, if anything, may follow when it comes to an end.” She attempted to get some context for this statement by reading the paragraphs around it. At this point, she wondered if “this book is about the softening of our society; the victim mentality, and how we refuse to identify evil when we see it.” At the end of the conclusion, she read yet another summarization by the author.

The subject of this book has been this incessant dialectic in American life between the dispossession of Satan under the pressure of modernity and the hunger to get him back. My driving motive in writing it has been the conviction that if evil, with all the insidious complexity which Augustine attributed to it, escapes the reach of our imagination, it will have established dominion over us all.

Like the other participants who found the different statements describing the purpose of Book Three, the multiple purposive statements confused Participant 11.

I’m kind of confused when I read this. It seems like in the introduction, he was saying that we are ignoring all the evil among us. But then in the conclusion he is saying that we are blaming everything on evil among us.

Her final aboutness statement attempted to incorporate as many of the statements as possible, but the participant was never really clear about the item’s aboutness or the author’s intent.

The Death of Satan is about the definition of evil in our society and about two conflicting ideologies. One is the practice of labeling events, people, and societies as evil, and the other is forgiving all sins as a part of the human condition.

Ultimately, her statement is muddled and does not address all of the concepts found in the item that might be useful in describing its aboutness.

Participant 12

Participant 12 used two approaches to the items. For Book One, he used a random, non-linear examination process. For the second and third items, he used a two-ends approach. He primarily skimmed the text and scanned the pages for words he felt were important. There was an element of a hierarchical process mixed in with his interpretive approach. His understanding of the aboutness came early in the process, after which he focused on reinforcing. It was not the most structured approach, but he did develop a quick grasp of the material. His final aboutness statements were highly influenced by his own interests, despite his belief that the process can be somewhat “objective.”

It is relatively objective compared to other kinds of intellectual evaluations that a person encounters. I would say yes [the process is objective], but my sensibilities parallel a lot of these arguments. If someone was really put off by this, their capacity or willingness to engage in that kind of rudimentary objectivity in finding out what it is about could be seriously handicapped.

Participant 12 used the Pearl Growing approach, illustrated in Figure 7.2: Pearl Growing, for all three items. He stated that he tried to do the same thing with all three texts, but “the only substantial difference was probably the introduction-focus on *The Death of Satan* versus the flipping in the other two.” His overall process began with an examination of the front matter, the introduction, and the table of contents from which he made several assumptions. He paid particular attention to the author’s point of view and tone. He examined both the introductions and the tables of contents, from which he refined his assumptions. From there he flipped through the text to reinforce his ideas via the section headings and word mining. At various times, he made associations to other books. When asked what he had done in the process, he stated:

I think I tried to reduce the text, rather than let it expand around me. I tried to reduce it and sum it up by looking for key themes and phrases that apply to my given body of knowledge; things I already experienced and [had] come in contact with.... I am looking for the general rather than particulars.

When asked to describe his examination of the books, he stated:

The titles of every book, but [not] *We've Got Issues*, tell you a lot, and the introduction is key.... It's a habit in the bookstore [to go to the back cover], so it was probably key that you blacked it out. I flip through to see the layout. Then I usually go to the introduction, and then check out the contents page. After that, I flip through to wherever the thumb stops.

When he was asked whether his examination was a structured approach or more of an exploration, he stated:

I am definitely going to hit up the introduction. Whether I am checking the book out for the purposes of this exercise or at the bookstore or library, the introduction tells you an awful lot. So that is definitely preplanned. If something stands out in the table of contents, I will definitely go there. That is the strategy I employ a lot.... With something this rich [the text of *The Death of Satan*], skipping around will probably get you lost in the more complex argument; not able to figure out where you are. So, the introduction is the place to start.

Participant 12 discussed the use of categorization in his process. He stated he saw the process as one of reduction and categorization, in an attempt to exclude as many details as possible without losing meaning. But the process is not without its limitations; he felt that he could juggle only so many categories at a given time. He stated:

You try to group them together as you go through. You group them together under categories.... What you are trying to do is to pick out those key vignettes or anecdotes, names, places, and dates; and you are constantly reorganizing them and coming up with categories under which they fall. But I try to keep those categories at a maximum of six; I am working on a frequency that will only allow roughly six breakdowns.

His examination of Book One began with the cover, title, introduction, and table of contents. From the chapter titles, he determined the item was going to be “political affairs-oriented” and the tone would be not be overly serious. This was his sand. He began examining the first chapter, and noticed things like, “brand names, place names, personal names: Bill Gates, Kennedy, Clinton.” He used the first and last words and the first and last sentences of paragraphs to help him get an idea of the aboutness. While in the first chapter he had established a fairly

sophisticated, but off-target aboutness statement. He incorporated more of what he hoped to find, rather than what actually appeared in the item.

[It is about] Political activism, especially among the Generation X, and probably tales of the status-quo failing, some successes of some thinkers and politically active people in that age group, and how they did what they did.

He continued his examination of the text to reinforce his assumptions. While doing so, he stated that he was paying attention to the form of the information. He noticed statistics and numbers, “[she is] backing [her points] up with statistics. That’s good homework.” His final aboutness statement was much broader than the content found in the actual item and included concepts not directly addressed by the author. While the book is encouraging members of Generation X to become more involved in political issues, “finding meaning in a world of fading rights and wrongs” is beyond the scope of the text. He also provided an evaluation of the book in his statement, “It is a benign, reasonably comprehensive political tract.”

This book addresses trying to find meaning in a world of fading rights and wrongs specifically through political activism and civic responsibility. The author tries to outline the political successes and failures of American government. She devotes chapters to all major themes of domestic life and international policy. She includes the point of view of everyone from politicians to people on the street, with little vignettes addressing each, but it is aimed at Gen X to get them politically active. She tries to represent both sides, anticipating possible rebuttals to her arguments, and backs up everything with contemporary, relevant facts and figures. It is a benign, reasonably comprehensive political tract.

For Book Two, Participant 12 performed the same tasks, but the structure of the examination was more orderly. Instead of randomly flipping through the text, he focused solely on the two ends of the book. His final aboutness statement covered the aboutness of the text quite thoroughly, but included ideas he considered notable that were not mentioned in the text, i.e., it “makes no major case for a boycott of international food conglomerates.” Many things are missing from each document one encounters; to describe an item by what it is not and what it does not address is a

futile, impossible task. Book One is not about chimpanzees or sea serpents, but those are mentioned in his aboutness statement.

The Crazy Makers makes an earnest case charting the rise of mental instability and affliction amongst the American population in the last several decades, and attempts to link the trend with increasingly unhealthy diets of mass produced foods. It addresses chapter by chapter the nutritional needs of the human body at progressive stages of life, describing the biochemistry in laymen's terms by way of evidence, and backing up that with easily digestible, little text blocks of anecdotes and do-at-home suggestions. The author makes no major case for a boycott of international food conglomerates; it is just a primer on how to steer clear of pre-processed foods and eat tasty and healthy, without adding to the insanity. It includes recipes.

His examination of the final item, *The Death of Satan*, was also straightforward and quickly performed. With this book, he made associations between the content and his personal life because he had "been raised Catholic, so that word [Satan] has all sorts of associations" for him. He did spend more time reading the introduction of this item than he did with the other two books. "I am immersing myself in the text here. There's a more complex tone, a richer range. I am reading this." After reading large passages from the introduction, he moved directly to the final chapter. From there, he wrote his aboutness statement quoting liberally from the text itself.

A gulf has opened up in the American culture between the visibility of evil and the intellectual resources available for coping with it. A fundamental shift has occurred from the physical immediacy of primitive religious worldviews to the relative rationalizations of the modern or post-modern worldview or sensibility. Satan, the embodiment of evil is dead to contemporary America. The evils pervasive throughout history have certainly not abated in modern times, but religion has fallen away from the daily lives of Americans, we tend to deal with evil or mask it with rationalizations, rather than characterize it as the result of a monster acting among us. This scholarly, academic work gives an historical overview and social critique. It imaginatively combines great texts, works of the masters, and fantasy, and then juxtaposes them with the hard and horrible truths of mass scale war and social injustice in the 20th century.

His statement, again, covers the content well enough, but incorporates some of the participant's own interpretations and interests, rather than just reflecting the author's content. Interpretation can be both a benefit and a disadvantage in aboutness determination.

BIBLIOGRAPHY

- Ahmad, Nazir. "Newspaper Indexing: An International Perspective." *The Indexer* 17, no. 4 (1991): 257-266.
- Albrechtsen, Hanne. "Subject Analysis and Indexing: From Automated Indexing to Domain Analysis." *The Indexer* 18, no. 4 (1993): 219-224.
- Aristotle. *Categories*. Project Gutenberg. November 2000.
<http://www.gutenberg.org/dirs/etext00/arist10.txt> (13 December 2005).
- Bagby, Meredith. *We've Got Issues: The Get Real, No B.S., Guilt-free Guide to What Really Matters*. New York: PublicAffairs, 2000.
- Barite, Mario Guido. "The Notion of 'Category': Its Implications in Subject Analysis and in the Construction and Evaluation of Indexing Languages." *Knowledge Organization* 27, no. 1/2 (2000): 4-10.
- Beck, Horace. *Folklore and the Sea*. Edison, NJ: Castle Books, 1999
- Beghtol, Clare. "Bibliographic Classification Theory and Text Linguistics: Aboutness Analysis, Intertextuality, and the Cognitive Act of Classifying Documents." *Journal of Documentation* 42, no. 2 (1986): 84-113.
- Bellardo, Trudi. *Subject Indexing: An Introductory Guide*. Washington, DC: SLA, 1991.

- Bertrand-Gastaldy, Suzanne, et al. "Convergent Theories: Using a Multidisciplinary Approach to Explain Indexing Results." In *Forging Partnerships in Information. Proceedings of the American Society for Information Science, Vol. 32. 58th Annual Meeting, Chicago, October 9-12, 1995*, edited by Tom Kinney. Medford, NJ: Information Today, 1995.
- Bernstein, Richard J. "What is the Difference that Makes a Difference? Gadamer, Habermas, and Rorty." In *Hermeneutics and Modern Philosophy*, edited by B.R. Wachterhauser. Albany, NY: SUNY Press, 1986.
- Bliss, Henry Evelyn. *The Organization of Knowledge in Libraries: And the Subject Approach to Books*. New York: Wilson, 1939.
- Broughton, Vanda. "Faceted Classification as a Basis for Knowledge Organization in a Digital Environment; the Bliss Bibliographic Classification as a Model for Vocabulary Management and the Creation of Multi-Dimensional Knowledge Structures." *The New Review of Hypermedia and Multimedia* 7 (2001): 67-102.
- Brown, A.G. *An Introduction to Subject Indexing*. 2nd ed. London: Clive Bingley, 1982.
- Calless, T.W. "Subject Analysis Matrices for Classification with UDC." In *Proceedings of the First Seminar on UDC in a Mechanized Retrieval System, Conducted by RR Freeman and Pauline Cochrane, Copenhagen, 2-6 September 1968*, edited by R Molgaard-Hansen and Malcolm Rigby. Copenhagen: Danish Documentation Center, 1969
- Campbell, Grant. "Queer Theory and the Creation of Contextual Subject Access Tools for Gay and Lesbian Communities." *Knowledge Organization* 27, no. 3 (2000): 122-131.
- Chan, Lois Mai. *Cataloging and Classification: An Introduction*. New York: McGraw-Hill, 1994.
- Chu, Clara M., and Ann O'Brien. "Subject Analysis: the Critical First Stage in Indexing." *Journal of Information Science* 19 (1993): 439-454.

Classification Research Group. "The Need for a Faceted Classification as the Basis of All Methods of Information Retrieval." In *Theory of Subject Analysis: A Sourcebook*, edited by Lois Mai Chan, Phyllis A. Richmond, and Elaine Svenonius. Littleton, Colo.: Libraries Unlimited, 1985.

Cleveland, Donald B., and Ana D. Cleveland. *Introduction to Indexing and Abstracting*. 3rd ed. Englewood, Colo.: Libraries Unlimited, 2001.

Collantes, Lourdes Y. "Degree of Agreement in Naming Objects and Concepts for Information Retrieval." *Journal of the American Society for Information Science* 46, no. 2 (1995): 116-132.

Curley, Arthur, and Jana Varlejs. *Akers' Simple Library Cataloging*. Metuchen, N.J.: Scarecrow Press, 1984.

Cutter, Charles A. *Rules for a Dictionary Catalog*. 4th ed. Washington, DC: Government Printing Office, 1904.

Dahlberg, Ingetraut. *On the Theory of the Concept*. N.p.: n.p., 1975.

Delbanco, Andrew. *The Death of Satan: How Americans Have Lost the Sense of Evil*. New York: Farrar, Straus and Giroux, 1995.

Denzin, Norman K., and Yvonna S. Lincoln. "Introduction: The Discipline and Practice of Qualitative Research." In *Handbook of Qualitative Research*, 2nd edition, edited by Norman K. Denzin, Yvonna S. Lincoln. Thousand Oaks, Ca.: Sage, 2000.

Dewey, Melvil. *Decimal Classification and Relativ Index for Arranging Cataloging and Indexing Public and Private Libraries and for Pamphlets, Clippings, Notes, Scrap Books, Index Rerums, etc.* 2nd ed., rev. and greatly enlarged. Boston, Mass.: Library Bureau, 1885.

———. *Decimal Classification, Standard (15th) edition*. Lake Placid Club, N.Y.: Forest Press, 1951.

———. *Dewey Decimal Classification and Relative Index*. Edition 22. Dublin, Ohio: OCLC, 2003.

Endres-Niggemeyer, Brigitte. "Content Analysis—A Special Case of Text Comprehension." In *Information. Knowledge. Evolution. Proceedings from the Forty-fourth FID Congress held in Helsinki, Finland, 28 August-1 September 1988*, edited by Sinikka Koskiala and Ritva Launo. Amsterdam: FID, 1989.

Fairthorne, Robert A. "Content Analysis, Specification, and Control." Chap. 3 in *Annual Review of Information Science and Technology Vol. 4*, edited by Carlos A Cuadra and Ann W. Luke. Chicago, Ill.: Encyclopedia Britannica, 1969.

Farradane, Jason. "Relational Indexing, Part II." *Journal of Information Science* 1, no. 6 (1980): 313-324.

Farrow, John. "All in the Mind: Concept Analysis in Indexing." *The Indexer* 19, no. 4 (1995): 243-247.

———. "A Cognitive Process Model of Document Indexing." *Journal of Documentation* 47, no. 3 (1991): 149-166.

Fidel, Raya. "User-Centered Indexing." *Journal of the American Society for Information Science* 45, no. 8 (1994): 572-576.

Foskett, D.J. "Ranganathan and User-Friendliness." *Libri* 42, no. 3 (1992): 227-234.

Fugmann, Robert. "Unused Possibilities in Indexing and Classification." In *Tools for Knowledge Organization and the Human Interface, Vol. 1, Advances in Knowledge Organization, Proceedings from the 1st International ISKO Conference, Darmstadt, 14-17 August 1990*, edited by Robert Fugmann. Frankfurt/Main: Indeks Verlag, 1991.

Gay, Lorraine R., and Peter Airasian. *Educational Research: Competencies for Analysis and Application*. Upper Saddle River, NJ: Merrill/Prentice-Hall, 2000.

Gopinath, M.A. "Speciators to Facets in Colon Classification." *Library Science with a Slant to Documentation* 22, no. 1 (1985): 1-13.

———. "Checklist of Component Ideas for Classification by Colon Classification." *Library Science with a Slant to Documentation* 22, no. 1 (1985): 14-18.

———. "Postulational Approach to Analytico-Synthetic Classification." *Library Science with a Slant to Documentation* 22, no. 4 (1985): 204-229.

Gorman, G.E., and Peter Clayton. *Qualitative Research for the Information Professional: a Practical Handbook*. London: Library Association, 1997.

Grolier, Eric de. "Some Notes on the Question of a So-Called 'Unified Classification'." In *Tools for Knowledge Organization and the Human Interface, Vol. 2, Advances in Knowledge Organization, Proceedings from the 1st International ISKO Conference, Darmstadt, 14-17 August 1990*, edited by Robert Fugmann. Frankfurt/Main: Indeks Verlag, 1991.

Harris, Brian. "Faceting." *T.A. Informations* 2 (1976): 44-50.

Hickey, Doralyn J. "Subject Analysis: An Interpretative Survey." *Library Trends* 25, no. 1 (1976): 273-291.

Hjørland, Birger. "Towards a Theory of Aboutness, Subject, Topicality, Theme, Domain, Field, Content...and Relevance." *Journal of the American Society for Information Science* 52, no. 9 (2001): 774-778.

———. *Information Science and Subject Representation*. Westport, Conn.: Greenwood Press, 1997.

———. "The Concept of Subject in Information Science." *Journal of Documentation* 48, no. 2 (1992): 172-200.

Hjørland, Birger, and Lykke Kylesbech Nielsen. "Subject Access Points in Electronic Retrieval." Chap. 5 in *Annual Review of Information Science and Technology Vol. 35*, edited by Martha E. Williams. Medford, NJ: Information Today, 2001.

Hovi, Irmeli. "The Cognitive Structure of Classification Work." In *Information. Knowledge. Evolution. Proceedings from the Forty-fourth FID Congress held in Helsinki, Finland, 28 August-1 September 1988*, edited by Sinikka Koskiala and Ritva Launo. Amsterdam: FID, 1989.

Hutchins, W. J. "The Concept of 'Aboutness' in Subject Indexing." *Aslib Proceedings* 30, no. 5 (1978): 172-181.

———. "On the Problem of 'Aboutness' in Document Analysis." *Journal of Informatics* 1, no. 1 (1977): 17-35.

———. *Languages of Indexing and Classification*. Herts, England: Peter Peregrinus, 1975.

Iivonen, Mirja, and Katja Kivimäki. "Common Entities and Missing Properties: Similarities and Differences in the Indexing of Concepts." *Knowledge Organization* 25, no. 3 (1998): 90-102.

International Organization for Standardization. *ISO 5963-1985 Documentation—Methods for Examining Documents, Determining their Subjects, and Selecting Indexing Terms*. Geneva: International Organization for Standardization, 1985.

Iyer, Hemalata. "Subject Representation and Entropy." *International Classification* 19, no. 1 (1992): 14-18.

———. "Online Searching: Use of Classificatory Structures." In *Tools for Knowledge Organization and the Human Interface, Vol. 2, Advances in Knowledge Organization, Proceedings from the 1st International ISKO Conference, Darmstadt, 14-17 August 1990*, edited by Robert Fugmann. Frankfurt/Main: Indeks Verlag, 1991.

Jolley, Leonard. *The Principles of Cataloguing*. New York: Philosophical Library, 1961.

Jones, Kevin P. "How Do We Index?" *Journal of Documentation* 39, no. 1 (1983): 1-23.

———. "Towards A Theory of Indexing." *Journal of Documentation* 32, no. 2 (1976): 118-125.

Lakoff, George. *Women, Fire, and Dangerous Things: What Categories Reveal About the Mind*. Chicago, Ill.: University of Chicago Press, 1986.

Lancaster, F.W. *Indexing and Abstracting in Theory and Practice*. 3rd edition. Champaign, Ill.: University of Illinois, 2003.

Langridge, D.W. *Subject Analysis: Principles and Procedures*. London: Bowker-Saur, 1989.

Leise, Fred. "Using Faceted Classification to Assist Indexing." *Keywords* 9, no. 6 (2001): 178-179.

- Lincoln, Yvonna S., and Egon G. Guba. "Paradigmatic Controversies, Contradictions, and Emerging Confluences." In *Handbook of Qualitative Research*, 2nd edition, edited by Norman K. Denzin, Yvonna S. Lincoln. Thousand Oaks, Ca.: Sage, 2000.
- Mai, Jens-Erik. "A Postmodern Theory of Knowledge Organization." In *Knowledge: Creation, Organization, and Use, Proceedings of the American Society for Information Science, Vol. 36. 62nd Annual Meeting, Washington, DC, October 31- November 5, 1999*, edited by Larry Woods. Medford, NJ: Information Today, 1999.
- . "Organization of Knowledge: An Interpretive Approach." In *Information Science at the Dawn of the Millennium, Proceedings of the Annual Conference of the Canadian Association of Information Science*, edited by E.G. Toms, D.G. Campbell, and J. Dunn. Toronto: CAIS, 1998.
- Maltby, Arthur. *Sayer's Manual of Classification for Librarians*. 5th ed. London: Andre Deutsch, 1975.
- Mandal, Akhilesh. "A Comparative Study of POPSI Tables with Fundamental Categories and Phase Relations in Colon Classification." *Herald of Library Science* 34, no. 1/2 (1995): 56-59.
- Mann, Margaret. *Introduction to Cataloging and the Classification of Books*. Chicago: ALA, 1930.
- Maron, M.E. "On Indexing, Retrieval and the Meaning of About." *Journal of the American Society for Information Science* 28, no. 1 (1977): 38-43.
- Marshall, Catherine, and Gretchen B. Rossman. *Designing Qualitative Research*. 2nd edition. Thousand Oaks, Ca.: Sage, 1995.
- Maxwell, Joseph A. "Understanding and Validity in Qualitative Research." *Harvard Educational Review* 62, no. 3 (1992): 279-300.

Mellwaine, I.C., and Vanda Broughton. "Guest Editorial: The Classification Research Group—Then and Now." *Knowledge Organization* 27, no. 4 (2000): 195-199.

Merriam, Sharan B., and Associates. *Qualitative Research in Practice*. San Francisco, Ca. : Jossey-Bass, 2002.

Metcalfe, John. "When is a Subject Not a Subject?" In *Towards a Theory of Librarianship*, edited by C.H. Rawski. New York: Scarecrow Press, 1973.

Miksa, Francis. *The Subject in the Dictionary Catalog from Cutter to the Present*. Chicago, Ill.: ALA, 1983.

Neelameghan, A. "S.R. Ranganathan's General Theory of Knowledge Classification in Designing, Indexing, and Retrieving from Specialised Databases." *Library Science with a Slant to Documentation and Information Studies* 34, no. 1 (1997): 2-53.

Neuendorf, Kimberly A. *The Content Analysis Guidebook*. Thousand Oaks, Calif.: Sage, 2002.

Olafsen, Tore, and Libena Vokac. "Authors' reply to R Moss's Letter to the Editor." *Journal of the American Society for Information Science*, 34, no. 4 (1983): 294.

Olson, Hope A., and John J. Boll. *Subject Analysis in Online Catalogs*. Englewood, Colo.: Libraries Unlimited, 2001.

Outhwaite, William. *Understanding Social Life: The Method Called Verstehen*. London: George Allen & Unwin, 1975.

Preschel, Barbara M. "Improved Communication between Information Centers through a New Approach to Indexer Consistency." In *Communication for Decision-Makers, Proceedings of the American Society for Information Science, Vol. 8, 34th Annual Meeting, Denver November 7-11, 1971*, edited by Jeanne B. North. Westport, Conn.: Greenwood, 1971.

Ramsden, Michael J. "A New Life for Bliss." *Australian Academic and Research Libraries* 9, no. 4 (1978): 210-214.

Ranganathan, S.R. *Prolegomena to Library Classification*. Bombay: Asia Publishing, 1967.

———. *Elements of Library Classification*. Bombay: Asia Publishing, 1962.

Reynolds, Sally Jo. "In Theory There is No Solution: the Impediments to a Subject Cataloging Code." *Library Quarterly* 59, no. 3 (1989): 223-238.

Richardson, Ernest Cushing. *Classification: Theoretical and Practical*. 3rd ed. Hamden, Conn.: Shoe String Press, 1964.

Rodriguez, Robert D. "Kaiser's Systematic Indexing." *Library Resources & Technical Services* 28, no. 2 (1984): 163-174.

Šauperyl, Alenka. *Subject Determination During the Cataloging Process*. Lanham, Md.: Scarecrow Press, 2002.

Šauperyl, Alenka, and Jerry D. Saye. "Subject Determination During the Cataloging Process: An Intensive Study of Five Catalogers." In *Proceedings of the 9th ASIS SIG/CR Classification Research Workshop, October 25, 1998, Pittsburgh, Pennsylvania*, edited by Elin K. Jacob. Silver Spring, Md.: ASIS, 1998.

Saye, Jerry D. *Manheimer's Cataloging and Classification*. New York: Marcel Dekker, 2000.

Sayers, W. C. Berwick. *An Introduction to Library Classification: Theoretical, Historical and Practical*. 9th ed. London: Graft, 1954.

Schwandt, Thomas A. "Three Epistemological Stances for Qualitative Inquiry." In *Handbook of Qualitative Research*. 2nd edition. Edited by Norman K. Denzin, Yvonna S. Lincoln. Thousand Oaks, Ca.: Sage, 2000.

———. "Farewell to Criteriology." *Qualitative Inquiry* 2 (1996): 58-72.

Sethi, A.R., and S. Shyamala. "Classaurus, Classification, and the Computer: An Exercise in the Application of POPSI Method in Subject Indexing." *Library Herald* 20, no. 2-4 (1982): 111-129.

Shera, Jesse H. *Documentation and the Organization of Knowledge*. Hamden, Conn.: Archon Books, 1966.

Simontacchi, Carol. *The Crazy Makers: How the Food Industry is Destroying Our Brains and Harming Our Children*. New York: Jeremy P Thatcher/Putnam, 2000.

Singh, Sukhdev. "Potentialities, Limitations, and the Future of Colon Classification." *Herald of Library Science* 38, no. 3/4 (1999): 186-194.

Smith, John K., and Deborah K. Deemer. "The Problem of Criteria in the Age of Relativism." In *Handbook of Qualitative Research*. 2nd edition. Edited by Norman K. Denzin, Yvonna S. Lincoln. Thousand Oaks, Ca.: Sage, 2000.

Soergel, Dagobert. *Organizing Information: Principles of Data Base and Retrieval Systems*. San Diego: Academic Press, 1985.

Sparck Jones, Karen. "Problems in Representation of Meaning in Information Retrieval." In *The Analysis of Meaning: Informatics 5, Proceedings of a Conference Held by the Aslib Informatics Group and the BCS Information Retrieval Specialist Group 26-28 March 1979, The Queen's College, Oxford*, edited by Maxine MacCafferty and Kathleen Gray. London: Aslib, 1979.

- Spiteri, Louise F. "The Use of Facet Analysis in Information Retrieval Thesauri: An Examination of Selected Guidelines for Thesaurus Construction." *Cataloging & Classification Quarterly* 25, no. 1 (1997): 21-37.
- Stanley, Janet. "Reference Librarian as Cataloger: Analytical Indexing as Front-End Reference." *Art Documentation* 14, no. 4 (Winter 1995): 7-9.
- Svenonius, Elaine. "The Epistemological Foundations of Knowledge Representation." *Library Trends* 52, no. 3 (2004): 571-587.
- . *The Intellectual Foundation of Information Organization*. Cambridge, Mass.: MIT Press, 1999.
- Swift, D.F., V. Winn, and D. Bramer. "'Aboutness' as a Strategy for Retrieval in the Social Sciences." *Aslib Proceedings* 30, no. 5 (1978): 182-187.
- . "A Multi-Modal Approach to Indexing and Classification." *International Classification* 4, no. 2 (1977): 90-94.
- Taylor, Arlene G. *The Organization of Information*. 2nd edition. Westport, Conn.: Libraries Unlimited, 2004.
- . *Wynar's Introduction to Cataloging and Classification*. Revised 9th edition. Westport, Conn.: Libraries Unlimited, 2004.
- Tibbo, Helen R. "Abstracting Across the Disciplines: A Content Analysis of Abstracts from the Natural Sciences, the Social Sciences, and the Humanities with Implications for Abstracting Standards and Online Information Retrieval." *Library and Information Research* 14, no. 1 (1992): 31-56.

Todd, Ross J. "Subject Access—What's It All About?" *Catalogue Australia* 19, no. 3/4 (1993): 259-262.

———. "Academic Indexing: What's It All About?" *The Indexer* 18, no. 2 (1992): 101-104.

Weber, Robert Philip. *Basic Content Analysis*. Newbury Park, Calif.: Sage, 1990.

Weinberg, Bella Hass. "Why Indexing Fails the Researcher." *The Indexer* 16, no. 1 (1988): 3-6.

Wellisch, Hans H. *Glossary of Terminology in Abstracting, Classification, Indexing, and Thesaurus Construction*. 2nd ed. Medford, NJ: Information Today, 2000.

———. "Aboutness and Selection of Topics." *Keywords* 4, no. 2 (1996): 7-9.

———. *Indexing from A to Z*. New York: Wilson, 1991.

Williamson, Nancy J. "Standards and Rules for Subject Analysis." *Cataloging & Classification Quarterly* 21, no. 3/4 (1996): 155-176.

Wilson, Patrick. *Two Kinds of Power: An Essay on Bibliographic Control*. Berkeley, Calif.: University of California Press, 1968.

Woolcott, Harry F. *The Art of Fieldwork*. Walnut Creek, Calif.: College Press, 1995.