

# PERCEPTION IN PERSPECTIVE

by

**Susanna Schellenberg**

M.A. , J.W. Goethe Universität Frankfurt am Main 1999

Submitted to the Graduate Faculty of  
Arts and Sciences in partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy

University of Pittsburgh

2007

UNIVERSITY OF PITTSBURGH  
FACULTY OF ARTS AND SCIENCES

This dissertation was presented

by

Susanna Schellenberg

It was defended on

September 1<sup>st</sup>, 2006

and approved by

Robert Brandom, Distinguished Service Professor of Philosophy

Stephen Engstrom, Associate Professor of Philosophy

Rick Grush, Associate Professor of Philosophy, University of California, San Diego

Anil Gupta, Distinguished Service Professor of Philosophy

Dissertation Advisor: John McDowell, University Professor of Philosophy

Copyright © by Susanna Schellenberg

2007

# PERCEPTION IN PERSPECTIVE

Susanna Schellenberg, Ph.D.

University of Pittsburgh, 2007

How can perception yield knowledge of the world? One challenge in answering this question is that one necessarily perceives from a particular location. Thus, what is immediately perceptually available is subject to situational features, such as lighting conditions and one's location. Nonetheless, one can perceive the shape and color of objects. My dissertation aims to provide an explanation for how this is possible. The main thesis is that giving such an explanation requires abandoning the traditional model of perception as a two-place relation between subjects and objects in favor of a model of perception as a three-place relation between subjects, objects, and situations.

In a first part, I show that treating perception as a three-place relation allows one to embrace the motivations for phenomenalism and indirect realism by recognizing that objects are presented a certain way, while preserving the intuition that subjects directly perceive objects. Second, it allows one to acknowledge that perceptions are not just individuated by the objects they are of, but by the way those objects are presented given the situational features.

In a second part, I spell out the consequences of the situation-dependency of perception for perceptual content. I argue that a view on which perception represents objects is compatible with the idea that perception is a matter of standing in relation to objects, if perceptual content is understood in terms of potentially gappy content schema. If one acknowledges that perception is both relational and representational, the problems of pure relationalist and pure intentionalist accounts can be avoided. In contrast to pure relationalism, such a view explains how veridical and hallucinatory experiences can be phenomenologically indistinguishable. Both experiences share a common content schema. But in contrast to pure intentionalism, the view explains how the content of these experiences differ. In the case of a veridical experience, the content schema is saturated by an object. In a hallucination, the content schema is gappy. My dissertation explores the implications of these ideas for the particularity of perception and the relation between perceptual consciousness, content, and attention.

# TABLE OF CONTENTS

<b>PREFACE</b>	<b>VII</b>
<b>INTRODUCTION</b>	<b>1</b>
<b>I. THE SITUATION-DEPENDENCY OF PERCEPTION</b>	<b>6</b>
1. The Argument for the Situation-Dependency Thesis	14
2. The Argument for the Direct Perception Thesis	32
3. The Argument for the Perceptual Content Thesis	35
4. Conclusion	38
<b>II. ACTION AND SELF-LOCATION IN PERCEPTION</b>	<b>41</b>
1. The Sensorimotor Knowledge Argument	45
2. The Spatial Know-How Argument	51
2.1 Allocentric Frames of Reference and Alter-Ego Vantage Points	54
3. The Self-Location Argument	60
4. Conclusion	69
<b>III. SELLARSIAN PERSPECTIVES ON PERCEPTION AND NON-CONCEPTUAL CONTENT</b>	<b>71</b>
1. Functional Roles and Rules of Application	74
2. Relating Thoughts to Objects	83
3. Intuitions and Demonstratives	92
4. Conclusion	95

<b>IV. PERCEPTUAL CONTENT, REPRESENTATIONS, AND RELATIONS</b>	<b>97</b>
<b>1. Relations and Representations</b>	<b>98</b>
<b>2. Relational Contents</b>	<b>105</b>
<b>3. Criticism of Object-Dependent Perceptual Content</b>	<b>110</b>
<b>4. Perceptual Content without Epistemic Intermediaries</b>	<b>116</b>
<b>5. Conclusion</b>	<b>123</b>
 <b>BIBLIOGRAPHY</b>	 <b>125</b>

## PREFACE

This project took shape in Pittsburgh in the spring of 2003, when John McDowell taught a seminar on Evans and singular thought, Anil Gupta taught a seminar on experience and empiricism, and Bob Brandom taught a seminar on Dretske, Fodor, and Millikan's theories of concepts. I am grateful to all three for those inspiring seminars. I asked myself how the perceptual basis of concept acquisition can be reconciled with the role of perception in justifying our beliefs about the world and bringing about states of perceptual consciousness. Since then many people have helped me through comments and conversations along the way. In the first place, I am grateful to the members of my committee. All of them have had a big influence on this dissertation through their own written work and through their responses to my ideas and arguments. John McDowell was an ideal dissertation director. His probing comments on multiple drafts of every chapter were invaluable. He is the kind of philosopher who always and immediately sees to the heart of things. His insight and integrity make him a kind of philosophical touchstone. I was fortunate to have had the chance to work closely with every member of my committee. I thank Bob Brandom for many illuminating discussions on Frege and inferential role semantics. Stephen Engstrom has given me detailed comments on every chapter in draft, often in several drafts. His suggestions and questions prompted significant improvements. I thank him for the many conversations that allowed me to see things more clearly. Rick Grush was much more involved than is expected from an outside reader. I thank him especially for fruitful discussions on the spatiality and temporality of experience and for his infectious philosophical curiosity. I had innumerable conversations and email exchanges about perception with Anil Gupta. He has the magical gift of creating a space in which ideas and

arguments can be developed. Many of his challenging comments will have to be addressed in future work. Without his unflagging enthusiasm I would not have been able to finish this project. He is a role model as a philosopher and as a human being.

I wrote most of this dissertation during the year I spent in Oxford and London. I spent many hours talking about the ideas in this dissertation with Wylie Breckenridge, Bill Brewer, Ada Bronowski, Stephen Butterfill, Herman Cappelen, Quassim Cassam, Tim Crane, Antony Eagle, Susan Hurley, Hemdat Lerman, Mike Martin, Anders Nes, Richard Price, Nick Shea, Tom Smith, Helen Steward, Tim Williamson, and José Zalabardo. I thank them for their detailed comments on individual chapters and for their helpful suggestions. I would like to single out Keith Allen, Mohan Matthen, and Declan Smithies who read and commented on huge parts of this document in draft and Scott Sturgeon who listened to my half-baked ideas on the situation-dependency and particularity of perception for hours on end and responded with kind encouragement and insightful comments. I am grateful also to Inger Hagen and Per Schjølberg-Henriksen, to Kari Schjølberg-Henriksen and Even Angell-Petersen, and to Hilal Sezgin and Hille Paakkunainen for opening their homes to me during this time and for their warmth and support.

In Pittsburgh, my main conversation partner was Wayne Wu. Almost every idea in this dissertation I first articulated in conversations with him. It is rare and wonderful to have such a generous and patient philosophical friend. In one way or another, I am indebted to everyone in the philosophy department in Pittsburgh. I owe special thanks to Matthias Haase, Anjana Jacob, and Sasha Newton for inspiring conversations on the nature of perceptual content; Sebastian Rödl, Kieren Setiya, and Michael Thompson for helpful suggestions on action and perception; and Matt Boyle, Kevin Scharp, and Lionel Shapiro for discussions on Fregean senses, singular thoughts, and acquaintance relations. I also want to thank Jesse Prinz and Jason Stanley for their invaluable suggestions, questions, and encouragement. I am especially grateful to Jonathan Schaffer who gave me detailed comments on the penultimate version of the entire document.



I have older debts. I am strongly influenced by Friedrich Kambartel, my advisor in Frankfurt. He showed me what it means to think carefully, what it means to think about topics that matter, and always to distinguish between terminological and philosophical disputes. I was lucky to have had the chance to be taught by him at an early stage and I hope that I learnt from him. My warmest thanks also to Beni Adler, Brigitta Bernet, Renata Burckhardt, and Harry Witzthum for igniting my interest in philosophy more than a decade ago and for their loyal friendship ever since. For better or worse, I wouldn't be who I am without them. My greatest debt is to my parents. I have been inspired by my mother's creativity and integrity and my father's idealism and dedication. I thank them for everything.

\*\*\*

I am grateful to the Norwegian Research Council for their generous funding.

## INTRODUCTION

GALILEO Vision is perfect. People have very good eyes.

APICIUS Whose weak eyes, then, need the help of your lenses?

GALILEO They are the eyes of the philosophers.

Fontenelle, *Dialogues des morts*, 1683

Perception is the most immediate link between mind and world. How can perception yield knowledge of the world? What is the nature of perceptual consciousness? My dissertation is driven by the first question, but aims to always keep the second question closely in sight. One of the challenges in answering the question of how perception can yield knowledge of the world is that one necessarily perceives from a particular location at a particular time. As a consequence, what is immediately perceptually available is subject to situational features, such as one's point of view and the lighting conditions. But although objects are always perceived subject to situational features, one can perceive their intrinsic properties, such as their shape, size, and color.

Given that objects are always perceived subject to situational features, an explanation is needed for how one can have knowledge of objects through perception. My dissertation aims to give such an explanation. The main thesis is that giving such an explanation requires abandoning the traditional model of perception as a two-place relation between subjects and objects in favor of a model of perception as a three-place relation between subjects, objects, and situations. I explore the implications of this thesis for the particularity of perception, the relational and representational nature of perceptual content, the relation between action and perception, as well as the relation between perceptual consciousness, content, and attention.

I argue that in order to explain how perception can give us knowledge of objects, the way an object is must not just be distinguished from the way it *appears* and the way it is *represented*, but also from the way it is *presented* given the situational features. Traditionally, the way an object is presented given the situational features has been conflated with either the way the object appears to one (which is a matter of the phenomenology of perception) or with the way one represents the object (which is a matter of perceptual content). As a consequence the *situation-dependency of perception* is either ignored or treated in terms of what could be called the *subjectivity of experience*, that is, aspects of experience that are a matter of properties of the experience rather than the external, mind-independent objects and properties that the experience is of.

Views that downplay the fact that objects are presented a certain way given the situational features insist that subjects perceive the intrinsic properties of objects directly. Against such naïve direct realist views, I argue that if we take seriously how subjects gain knowledge through perception, we must acknowledge that all that is immediately perceptually available to subjects is how objects are presented given the situational features. As a consequence, the question of how subjects can have perceptual knowledge of objects cannot be answered by insisting that they perceive intrinsic properties directly.

A second influential line of thought in the philosophy of perception is to understand the way objects are presented given the situational features in terms of mind-dependent items, such as appearances, sense impressions, or the subjective qualities of perception. Against phenomenalism, indirect realism and other views in this tradition, I argue that at least part of what these views conceive of as mind-dependent properties or objects should rightly be understood in terms of the situation-dependency of perception. In short the idea is that the ways objects are presented are external and mind-independent properties of objects, that is, *situation-dependent properties*. These properties are a function of the inherent properties of objects and the situational features.

Recognizing perception as a three-place relation between subjects, objects, and situations yields three advantages. It allows one to embrace the motivations that lead to phenomenalism and indirect realism by recognizing that objects are presented a certain way, while holding on to the intuition that subjects directly perceive objects. Second, it allows one to acknowledge that perceptions are not just individuated by the objects they are of, but by the way those objects are presented given the situational features. Finally, it allows one to distinguish perception and thought about the same object with regard to their content. By contrast to a thought, perceptual content represents not just the object, but the way the object is presented given the situational features.

In chapter 1, I argue that by separating out the situation-dependency of perception from the subjectivity of perception, one can recognize that the way an object is must not just be distinguished from the way it *appears* and the way it is *represented*, but also from the way it is *presented* given the situational features. I argue that the way an object is presented is best understood in terms of external, mind-independent, but situation-dependent properties of objects. Situation-dependent properties are a function of the intrinsic properties of objects, such as their shape, size, and color, and the situational features, such as the lighting conditions and the perceiver's location in relation to the perceived object. By contending that the representation of the intrinsic properties of objects depends on the representation of their situation-dependent properties, I show that the ways objects are presented is an irreducible part of perceptual content.

Chapter 2 considers the relation between the perception of objects' intrinsic properties and their situation-dependent properties for the specific case of visual spatial perception. More generally, the chapter gives an account of the spatiality of visual perception. I offer an explanation for how subjects are able to perceive the intrinsic spatial properties of objects, given that subjects always perceive from a particular location. The argument proceeds in two steps. First, I argue that a conception of space is necessary to perceive the intrinsic spatial properties

of objects. This conception of space is spelled out by showing that perceiving intrinsic properties requires perceiving objects as the kind of things that are perceivable from other locations. Second, I show that having such a conception of space presupposes that a subject represent her location in relation to perceived objects. More precisely the thesis is that a subject represents her location as the location from which she both perceives objects and would act in relation to objects were she to act. So I argue that perception depends on the capacity to know what it would be to act in relation to objects. By doing so I reject the currently popular thesis that perception is dependent on token actions.

It seems plausible that something is given to us in perception that is the basis for the judgments we form about objects in view. And it is tempting to say that what is given in perception has content in some way without being conceptual. It seems plausible, on the other hand, that only conceptually structured content is accessible to us. In chapter 3, I argue that a Sellarsian approach to experience allows one to take seriously the thought that there is something given to us in perception, without denying that we can only be conscious of conceptually structured content. I argue against the traditional empiricist reading of Sellars, according to which sensations are understood as *epistemically* graspable prior to concrete propositional representations. I show that it is unclear on such a view why sensations would not just be the given which Sellars famously criticizes. I suggest an alternative transcendental reading, according to which there are two sides to the subject matter of perceptual judgments: the matter given in perception (sensation), and its form (intuition). I present an account of sensations and intuitions on which it is unproblematic to see sensations as what is given in perception. They are not intelligible independently of their role as the matter of intuitions, the content of which is accessible to us only in the context of a judgment. I reject the distinction between conceptual and non-conceptual content as a helpful tool in discussing the nature of perceptual content. I argue that the crucial distinctions are rather between the situation-dependent and the situation-independent aspects of perceptual content, between the content and

object of perception, and between the particularity and generality of perceptual consciousness. While what is given in perception accounts for the particularity of perceptual consciousness, the concepts in play account for its generality.

The dissertation concludes with a chapter in which I tie together the material in the previous chapters. Traditionally views according to which perception is essentially relational have been taken to be incompatible with views according to which perception is representational. I argue that a view on which perception represents objects is compatible with the idea that perception is a matter of standing in relation to objects, if perceptual content is understood in terms of potentially gappy *de re* modes of presentation. I show that by acknowledging that perception is both relational and representational, the problems of pure relationalist and pure intentionalist accounts can be avoided. In contrast to pure relationalism and disjunctivism, the view I defend can explain how veridical and hallucinatory experiences may be phenomenologically indistinguishable. Both experiences share a content schema that grounds the phenomenal character of the experience. But in contrast to pure intentionalism, the view I defend can explain the differences between the two experiences with regard to their content. In the case of a veridical experience, the content schema is saturated by an object. In the case of a hallucinatory experience, the content schema is not satisfied by an object and, as a consequence, is gappy. I explore the implications of these ideas for the particularity of perception and the relation between perceptual consciousness, content, and attention.

## I. THE SITUATION-DEPENDENCY OF PERCEPTION\*

I argue that the traditional model of perception as a two-place relation between subjects and objects should be rejected in favor of a model of perception as a three-place relation between subjects, objects, and situations. The way an object is must not just be distinguished from the way it *appears* and the way it is *represented*, but also from the way it is *presented* given the situational features. I argue that the way an object is presented is best understood in terms of external, mind-independent, but situation-dependent properties of objects. Situation-dependent properties are a function of the intrinsic properties of objects, such as their shape, size, and color, and the situational features, such as the lighting conditions and the perceiver's location in relation to the perceived object. I argue that recognizing perception as a three-place relation between subjects, objects, and situations yields three advantages. It allows one to embrace the motivations that lead to phenomenalism and indirect realism by recognizing that objects are presented a certain way, while holding on to the intuition that subjects directly perceive objects. Second, it allows one to acknowledge that perceptions are not just individuated by the objects they are of, but by the way those objects are presented given the situational features. Finally, it allows one to distinguish perception and thought about the same object with regard to their content.

The fundamental philosophical interest in perception is to answer the question of how perception can give us knowledge of the world. One of the challenges in answering this question is that one necessarily perceives from a particular location and at a particular time. As a consequence, what is immediately perceptually available is subject to situational features, such as one's point of view and the lighting conditions. But although objects are always perceived subject to situational features, one can perceive the shape and color of objects.<sup>1</sup> One can perceive the shape of objects although only the facing surfaces are visible, and one can

---

\* I am indebted to Keith Allen, Stephen Engstrom, Anil Gupta, Benj Hellie, Anjana Jacob, James John, Uriah Kriegel, Mohan Matthen, John McDowell, Anders Nes, Gurpreet Rattan, Jonathan Schaffer, Declan Smithies, Evan Thompson, Markos Valaris, and Wayne Wu for detailed comments on drafts of this chapter. I am also grateful to David Chalmers, John Hawthorne, Mike Martin, Christopher Peacocke, Jason Stanley, Scott Sturgeon, and Timothy Williamson for clarifying discussions while I was still trying to come to grips with the ideas. Thanks finally to audiences at the AAP 2006 and the Universities of Oslo, Oxford, and Rutgers.

<sup>1</sup> Of course, there are breakdown conditions. One cannot, for instance, tell whether a shape is a sphere or a cube, if one perceives it from sufficiently close up.

perceive two same-sized objects located at different distances to be the same size. Similarly, one can perceive the uniform color of a yellow wall although parts of it are illuminated more brightly than others, and one can recognize the sound of a cello regardless of whether it is played on a street or in a concert hall. More generally, one can perceive the properties objects have regardless of the situational features, although one always perceives objects subject to situational features.<sup>2</sup>

Let's call the perceivable properties that an object has regardless of how the object is presented given the situational features the object's *intrinsic properties*.<sup>3</sup> With situational features I mean the features of the environment that determine the way an object is presented. The lighting conditions, color context, and one's location in relation to perceived objects are the situational features that are typically the most salient for the ways objects are presented—at least for human visual perception. When I speak of objects without further qualification, I mean the mind-independent, external objects, such as cats and tables, that one's perceptions are of.<sup>4</sup>

---

<sup>2</sup> In the context of the present discussion, I take for granted that colors are external, mind-independent properties of objects. This allows me to treat perception of colors as analogous to perception of shapes. My argument is agnostic on the different possible ways of treating colors as mind-independent properties. So it is agnostic on views according to which colors are reflectance properties and so called primitivist or naïve realist accounts of colors. For a defense of an understanding of colors as reflectance properties, see Matthen 1988 as well as Byrne and Hilbert 2003. For critical discussions of such a view, see Hardin 1988, McLaughlin 2003, and Cohen 2004. For a defense of a primitivist or naïve realist understanding of color, see for instance Campbell 1993, Martin 1997, 2006, forthcoming, Allen forthcoming. For a critical discussion, see Byrne 2007. Colors understood in terms of dispositional properties are often considered to be mind-independent (e.g. Shoemaker's (1982, 1994, 2003, 2006) dispositional appearance properties). Similarly, views that analyze what it is for something to *be* colored in terms of what it is for something to look colored are sometimes considered to be compatible with the idea that colors are mind-independent (e.g. Noë's (2004) phenomenal objectivism about color). Insofar as such accounts treat colors in terms of experiences of color, they are just a version of the view that colors are mind-dependent properties. For an excellent defense of this thesis, see Allen (forthcoming).

<sup>3</sup> See Weatherson 2006 for a discussion of intrinsic properties. I am limiting the scope of intrinsic properties to perceivable properties. But they need not be properties that are perceivable for human perceivers.

<sup>4</sup> I am taking a so-called act-object conception of experience for granted. In other words, I am taking for granted that experience is structured by an act of experiencing and an object of experience. This model has been criticized by adverbialists, most famously by Chisholm (1957). According to adverbialists, experiences are modifications of the subject's conscious states. Experience is a manner of being conscious, and a manner is an adverbial thing. When one experiences, say, a red tomato, one is appeared to red-ly and round-ly.



The fact that what is immediately perceptually available is only the way an object is presented is a direct consequence of the spatio-temporal nature of perception. One can imagine subjects whose sensory organs are spatially extended such that they can perceive an object from several angles simultaneously. The way the sensory organs are spatially extended depends on the particular kind of perceiver. But it is a necessary feature of perception that subjects perceive from somewhere at some time. If one necessarily perceives objects from a particular location at a particular time, then what is *immediately* perceptually available to one is only the ways objects are presented. The rear-sides of objects, say, are not immediately perceptually available, whereas the surfaces in the subject's line of sight are immediately perceptually available. The idea that what is immediately perceptually available is only the way an object is presented does not imply that intrinsic properties are not *perceptually available*. The whiteness of the wall to my right and the roundness of the rim of the cup before me are perceptually available to me. Typically they are what are primary in my perceptual consciousness. But this is not to deny that there is an *epistemological* priority of the ways objects are presented as far as availability is concerned.

If what is immediately perceptually available is only the ways objects are presented, then an explanation is needed for how one can have knowledge of the intrinsic properties of objects through perception. The aim of this chapter is to contribute to such an explanation. The main thesis is that in order to give such an explanation perception is best understood as a three-place relation between subjects, objects, and situations. Call this the *situation-dependency thesis*. I aim to show that the traditional model of perception as a two-place relation between subjects and objects should be rejected in favor of a model of perception as a three-place relation between subjects, objects and situations. The way an object is must not just be distinguished from the way it *appears* and the way it is *represented*, but also from the way it is *presented* given the situational features. I argue that the way an object is presented is best understood in

terms of external, mind-independent properties that the object has given its intrinsic properties and the situational features.

Traditionally, the way an object is presented given the situational features has been conflated with either the way the object appears to one (which is a matter of the phenomenology of perception) or with the way one represents the object (which is a matter of perceptual content).<sup>5</sup> As a consequence the *situation-dependency of perception* is either ignored or treated in terms of what could be called the *subjectivity of experience*. With the subjectivity of experience I mean any aspect of experience that is a matter of properties of the experience rather than the external, mind-independent objects and properties that the experience is of. There are many distinctions to be made. The phenomenal character of experience is sometimes distinguished from its qualitative and subjective character. While the phenomenal character is a matter of what it is like for me, the qualitative character captures the “what it is like”-component and the subjective character captures the “for me”-component.<sup>6</sup> Moreover phenomenal properties can be understood as intentional aspects of sensations or as qualitative contents that outrun the intentional.<sup>7</sup> These differences do not matter for the present discussion. I will refer to any mind-dependent properties of experience as aspects of the subjectivity of perception.

I argue that the ways objects are presented are better understood as external, mind-independent, but *situation-dependent properties* of objects. They are a function of the perceived object’s intrinsic properties and the situational features.<sup>8</sup> Take the coffee cup to my left. It is

---

<sup>5</sup> Appearances have in turn been understood in terms of the way an object is perceived, the way it is given in experience, the way it is presented in one’s visual experience, or some other mind-dependent property of experience. These notions differ substantially, but all concern the phenomenal character or the sensible qualities of experience.

<sup>6</sup> For a discussion of this distinction, see Levine 2001, Kriegel (2005, forthcoming).

<sup>7</sup> For a discussion of this distinction, see Lycan (1995).

<sup>8</sup> This thesis draws on several well-known concepts: Noë’s (2004) notion of P-properties, Peacocke’s (1992) notion of a scene, and Shoemaker’s (e.g. 1982, 2003, 2006) notion of appearance properties or phenomenal properties. I will discuss the latter two in detail below. As I discuss in my (2007), Noë

presented in a certain way given my location. One side is closer than the other; one part faces away from me and so is not immediately perceptually available to me. Insofar as the way the cup is presented can be characterized by referring only to external and mind-independent features of the cup and the environment, the way the cup is presented is due to the situation-dependency rather than the subjectivity of perception. The way the cup is presented to a situated subject is an objective, albeit situation-dependent feature of the world. Thus, it is possible for a subject to *misrepresent* the way the cup is presented.

My argument has three parts. In Part 1, I argue for the situation-dependency thesis. In Part 2, I show that recognizing the situation-dependency thesis allows one to acknowledge that objects are presented a certain way, while holding on to the intuition that we directly perceive physical objects. In Part 3, I argue that because perception is tied to a particular time and place, the perception of the intrinsic properties of objects is epistemically dependent on the perception of how objects are presented. If this is right, then the representation of the way objects are presented is a necessary part of perceptual content.

So I argue that recognizing perception as a three-place relation between subjects, objects, and situations yields three advantages. It allows one to embrace the motivations that lead to phenomenalism and indirect realism by recognizing that objects are presented a certain way, while holding on to the intuition that subjects directly perceive objects. Second, it allows one to acknowledge that perceptions are not just individuated by the objects they are of, but by the way those objects are presented given the situational features. As a consequence, for an experience

---

understands P-properties as projections on a plane perpendicular to the subject's line of sight. Although he insists that they are objective, mind-independent properties, he analyzes them in terms of how things look to perceivers, more specifically in terms of what he calls phenomenal objectivism and in terms of the psychological notion of a visual field. In this respect, they are the very same kind of properties that Gibson (1950) refers to as visual field properties and Peacocke (forthcoming) refers to as sensational properties. I am not denying that there are such properties, but what I have in mind is a different kind of property. In contrast to P-properties, situation-dependent properties are not properties of the visual field and are not two-dimensional geometrical projections. They are properties of objects in the world. The idea that perception is subject to viewing conditions is wide spread in the literature.

to be accurate is not just for it to be of the right intrinsic properties of an object, it is for it to be also of the right situation-dependent properties.<sup>9</sup> So accounting for the situation-dependency of perception makes it possible to recognize that more of experience is subject to accuracy conditions than is traditionally acknowledged. In so far as situation-dependent properties can be represented and misrepresented in the very same way that intrinsic properties can be represented and misrepresented, they are systematically related to the content of states that justify our beliefs about the world. Finally, understanding perception as a three-place relation allows one to distinguish perception and thought about the same object with regard to their content. In contrast to a thought, perception represents not just the object, but the way the object is presented given the situational features.

Before I embark on this project, I will briefly motivate the distinction between the situation-dependency and the subjectivity of perception in light of standard views on perception.

### *Standard Views*

Traditionally, the situation-dependency and the subjectivity of perception are lumped together. How objects look given the situational features is either downplayed or taken so seriously that it becomes mysterious how perception can yield knowledge of objects. Views that downplay the fact that objects are presented a certain way given the situational features insist that subjects perceive the intrinsic properties of objects directly. Against such naïve direct realist views,<sup>10</sup> I argue that if we take seriously how subjects gain knowledge through perception, we must acknowledge that all that is immediately perceptually available to subjects is how objects are presented given the situational features. As a consequence, the question of how subjects can

---

<sup>9</sup> In the context of this chapter, I take for granted that experience is subject to accuracy conditions. This idea has been denied by adverbialists, such as Chisholm (1957), and more recently by Travis (2004) and Brewer (2006). I discuss the thesis that perception has accuracy condition in detail in chapter 4.

<sup>10</sup> It is important not to confuse “naïve direct realism” with “naïve realism” as defended for example by Martin (e.g. 1997). The former is a thesis about the direct object of perception; the latter is a thesis about the mind-independence of the objects, properties, and relations that we perceive.

have perceptual knowledge of objects cannot be answered by insisting that we perceive intrinsic properties directly.

A second influential line of thought in the philosophy of perception is to understand the way objects are presented given the situational features as mind-dependent. In the tradition of Locke, Berkeley, and Hume, appearances are invoked to explain cases of illusion and hallucination. In cases of illusion, an object appears to have a property that it does not in fact have. In cases of hallucination, there appears to be an object where in fact there is none. Hume writes: “[T]he table, which we see, seems to diminish, as we remove farther from it: but the real table, which exists independent of us, suffers no alteration: it was, therefore, nothing but its image, which was present to the mind” (1777, p. 152). By presupposing that the appearance of an object is a case of an optical illusion, Hume is led to conclude that appearances are mind-dependent items of sorts.

Acknowledging that there is something present to the mind that is distinct from the perceived object has motivated different versions of phenomenalism<sup>11</sup>, sense-data theories<sup>12</sup>, and indirect realism<sup>13</sup>. The details of these views differ radically, in particular with respect to the ontological and epistemological status of that which is directly present to the mind. What the views in this tradition have in common is the thesis that what is directly present to consciousness is a mind-dependent property or object rather than a property of the physical object that the perception is of.<sup>14</sup>

---

<sup>11</sup> Phenomenalism can be traced back to Berkeley, but has been defended most famously by Mill (1865).

<sup>12</sup> Price (1932) famously argues that sense-data are mind-dependent, non-physical objects. Jackson (1977) defends the existence of non-physical sense-data on the basis of linguistic analysis. He interprets the claim ‘object *x* looks red’ as having the underlying form, ‘Subject *S* sees a red sense-datum belonging to *x*’. More recently, Jackson (1998) has distanced himself from his unabashed sense-data view. I follow Smith (2002) in treating sense-data theories as a version of indirect realism.

<sup>13</sup> Kriegel has recently defended an indirect realist view. He argues: “appearances are external, material individual objects. What makes them appearances is that they are mind-dependent, not in the sense that they exist ‘in the mind’, but in the sense that they have essentially mind-dependent properties, that is, properties whose instantiation depends partly on the mind of the perceiver” (2004, p. 22).

<sup>14</sup> Of course the thesis that what is directly present to the mind is something mind-dependent is compatible with the claim that the intentional object of perception is an external, mind-independent

Many objections have been raised against views that are committed to this thesis.<sup>15</sup> Two are of relevance here. Such views violate the intuition that we directly perceive the physical objects around us. Secondly, if what is directly present to consciousness is something mind-dependent, then perception appears to be cut off from reality. Against the views in this tradition, I argue that at least part of what is typically understood as mind-dependent should be understood in terms of the situation-dependency of perception. In short, the idea is that the way objects are presented is external and mind-independent.

Phenomenalism, indirect realism, and naïve direct realism each require abandoning at least one of the following intuitions:

- (1) Subjects directly perceive the objects that their perceptions are of.
- (2) What is immediately perceptually available is subject to situational features.
- (3) What is immediately perceptually available can be distinct from how subjects perceive the objects to be.

But all three intuitions can be embraced, if the way objects are presented given the situational features is understood externally and mind-independently. Understanding the way objects are presented as external and mind-dependent makes it possible to distinguish between the subjective and the objective, but situation-dependent aspect of perception.

The distinction between the subjective and objective properties of perception has been understood in many different ways, but all concern the dependence or independence of perception on the subject's sensibility or cognition. In the idealist tradition, the distinction is understood to mark the extent to which subjects perceive reality independently of their sensibility or cognition. Insofar as perception is subjective, perception is understood to be

---

object. It is also compatible with the claim that perceptual content represents (possibly among other things) external and mind-independent objects. It is crucial to distinguish between what is directly present to the mind, the intentional object of perception, and the external object that perception represents.

<sup>15</sup> See for instance Bermúdez 2000a or Jackson 1977, in particular pp. 15-20.

constitutive of its object. In the phenomenological tradition, the distinction is understood to mark the extent to which perception is mind-dependent.

Phenomenalism, indirect realism, and direct realism differ with respect to what constitutes the *object* of perception. The question of what constitutes the object of perception must be distinguished from the question of how the relationship between the representational content and the phenomenal character of perception is conceived.<sup>16</sup> The argument presented here is agnostic on the answer to the second question. If the argument holds at all, it will hold regardless of how the debate on the relation between the representational content and the phenomenal character of perception is resolved. My argument does however relate to that debate insofar as I argue that at least part of what is often conceived of in terms of the phenomenal character or the subjective qualities of experience should rightly be thought of in terms of representations of external, mind-independent properties of objects. This by no means amounts to a denial of non-representational subjective properties of experience.

## 1. The Argument for the Situation-Dependency Thesis

Phenomenalists and indirect realists treat the ways objects appear as something mind-dependent. Although there arguably are mind-dependent ways that objects appear, the kind of cases that has traditionally motivated phenomenalism and indirect realism are dealt with better

---

<sup>16</sup> Peacocke (1983, 1984, 2001, forthcoming) and Block (1990, 2003) among others argue that the representational content of experience is grounded in its phenomenal character. Armstrong (1968), Shoemaker (1990), Dretske (1995), Tye (1995a, 2000), Lycan (1996), and Byrne (2001) argue that the phenomenal character of experience is grounded in its representational content. The relation between phenomenal character and representational content is sometimes characterized as a relation of supervenience. But supervenience is a non-asymmetric relation. It is possible for *A* to supervene on *B* and for *B* to supervene on *A*. Since representationalism and phenomenalism are exclusive, the asymmetric grounding relation is better suited to characterize the difference between the two views. For further discussion, see Kim 1990 (p. 13). While the objective or the intentional component captures what the experience is of—in the successful case, an object in the external world—the subjective component captures the phenomenal character or the subjective qualities of the experience. Traditionally, the two components have been assumed to be independent. More recently, the intentional content and phenomenal character of perception have been argued to be inseparable (see in particular Shoemaker 1982, 1994; Horgan and Tienson 2002; Martin 2003, forthcoming).

in terms of the *mind-independent* ways objects are presented given the situational features. The way an object is presented can be understood strictly externally, namely as determined by the object's intrinsic properties and the situational features.<sup>17</sup> For the visual perception of size and shape, the perceiver's location in relation to the perceived object is the crucial situational feature that determines how the object is presented. For the perception of color, the color context and lighting conditions are among the crucial situational features. Take again the cup on my table. Insofar as I perceive it from a particular location, the cup is presented in a certain way. Its shape is presented in an egocentric frame of reference, which in turn means that the object and its parts are presented as standing in specific spatial relations to me. The way the cup's shape is presented is a function of its intrinsic shape and the location from which I perceive it—among any other situational features that affect how the object is presented. On such an understanding, the way the cup's shape is presented is an external and mind-independent fact about the cup and the situation in which it is perceived. Any perceiver occupying the same location would, *ceteris paribus*, be presented with the cup in the very same way.

If the way an object is presented is understood as external and mind-independent in this way, it can be understood in terms of the properties the object has given the situational features. Let's call these properties the object's *situation-dependent properties*.<sup>18</sup> Situation-dependent properties are a function of the situational features and the intrinsic properties of the object. This means that fixing the intrinsic properties and the situational features fixes the situation-dependent properties.<sup>19</sup>

---

<sup>17</sup> Matthen (2005) expresses a similar idea when he says that a surface is presented as it is—color-wise—in part

because of a property it has, its color, and in part because of the condition it is in.

<sup>18</sup> An alternative label might be “relational properties”. But relational properties have been understood as properties that involve relations to a perceiver's mind (for a discussion, see Thompson 1995). Since the properties I am introducing are a function only of external, mind-independent features it is important to distinguish them clearly from such relational properties.

<sup>19</sup> The question of *how* the situation-dependent properties are determined from the intrinsic properties and the situational features is an empirical question, which is beyond the scope of the present discussion.



It is conceivable that two different intrinsic properties yield the very same situation-dependent property given suitable situational features. So it is conceivable that, say, a blue couch under yellow lighting conditions is presented as having the very same situation-dependent color property as a green couch under standard lighting conditions. Furthermore, the thesis that there is a distinction between the situation-dependent properties and the intrinsic properties of an object is compatible with the existence of cases in which situation-dependent and intrinsic properties of an object happen to match. Say you are looking at the round rim of a cup from directly above. From such a location, the rim of the cup is presented as round. But even in this case, there is a metaphysical distinction between the two properties. The important point is that given the spatio-temporal nature of perception,<sup>20</sup> there is a necessary distinction between the way an object is presented and the way it is regardless of the situational features. In other words, there is a necessary distinction between the situation-dependent and the intrinsic properties of an object.

Thinking about the ways objects are presented in terms of situation-dependent properties allows one to acknowledge that as the situational features change, perceptual content remains the same with regard to the intrinsic properties of objects, but changes with regard to the situation-dependent properties. Furthermore, by understanding the ways objects are presented in terms of situation-dependent properties, the difference between how objects are presented and how one perceives them to be can be clearly brought out as a difference in *what* is perceived, and thereby distinguished from any differences in *the ways* in which an object, property, or relation is perceived. The difference between perceiving an object's situation-dependent properties and perceiving its intrinsic properties is a difference in the *perceived*, not a difference in the *perceiving*.

---

<sup>20</sup> I elaborate on this spatio-temporal nature of perception in Part 3.

So the way an object is presented must be differentiated from the way it is perceived.<sup>21</sup> While the way an object is presented is an aspect of the external mind-independent world, the way an object is perceived is a matter of the phenomenal character or the sensible qualities of experience.<sup>22</sup> Take Mach's example of perceiving a shape from the same angle once as a square and once as a diamond. The difference in perception is due to a difference in the way it is perceived. As Peacocke has argued, the way it is perceived contributes to what it is like to have the experience and is not captured in the representational content of perception (see for instance his 1992, pp. 74-77 and his 2001, pp. 253 f.). In such cases, there is no external difference to be represented and so the difference in perceptual character cannot be explained in terms of a difference in representations of mind-independent properties or objects. But when one changes one's location in relation to the shape, the way the shape is presented changes, that is, something external and mind-independent changes, namely the situation-dependent property of the object. So in contrast to Mach's case, this change is due to the situation-dependency, not the subjectivity of perception. As I will argue below, it is a change that is reflected in the representational content of perception.

The point of distinguishing the situation-dependency from the subjectivity of perception is to contrast the properties of external objects from the properties of experience and the mind-dependent objects of experience. Part of the confusion in the debate about the subjective components of perception is that the terms in which these matters are discussed tend to run together properties of *experience* with situation-dependent properties of the *objects* of

---

<sup>21</sup> There are many ways of expressing ideas similar to the idea that objects, properties, and relations are perceived in a certain way. McDowell writes of the "determinateness with which [shades of colors] are presented in one's visual experience" (1994, p. 56). What McDowell has in mind here is a particular phenomenon of the sensible qualities of experience. McDowell's idea of something being presented in one's visual experience must be distinguished from the idea I am concerned with, namely the idea of the way objects are presented understood in terms of the mind-independent, situation-dependent properties of objects.

<sup>22</sup> For an excellent discussion of the relation between the ways objects are given in perception and Fregean senses, see Peacocke 1994, pp. 248ff.

experience. But while the subjectivity of perception concerns properties of experience, the situation-dependency of perception concerns properties of the perceived objects given the situational features. To show more precisely why the situation-dependency and the subjectivity of perception are distinct, it is helpful to distinguish between

(1) the way an object appears to a subject;

and

(2) the way an object is presented given the situational features.

This distinction is made clearer by bringing out what (1) and (2) each stand in opposition to. How an object appears to be stands in opposition to how it really is. In contrast, the ways objects are presented given the situational features—that is, the situation-dependent properties of objects—stand in opposition to the intrinsic properties of objects. The distinction between situation-dependent and intrinsic properties is not a distinction between the properties objects appear to have and the properties those objects actually have. Nor is it a distinction between the properties objects appear to have and the properties our experience represents objects as having. If both intrinsic and situation-dependent properties are external and mind-independent, then the distinction between them does not run parallel to the distinction between the properties of experience and the properties of objects. The distinction lies rather within the realm of external, mind-dependent properties of objects. The situation-dependent properties of an object are the very same for any perceiver given the same situational features.

Insisting that the ways objects are presented are mind-independent is of course not to deny that representations of how objects are presented are mind-dependent. But it is crucial to distinguish

(3) representations of the way an object is presented given the situational features from how an object appears to be and from how the object is presented. How one represents objects as being presented is dependent on one's sensory system. Now representations have

been understood in many different ways. The present argument holds for any understanding that is committed to the most basic principle of characterizing perceptual content in terms of representations, namely that there is a distinction between the case in which things are as they are represented to be and the case in which things are otherwise. In other words, the only principle that the use of representations here is committed to is that representations have accuracy conditions. This commitment is neutral on the question of whether perceptual content is conceptual or non-conceptual, whether perceptual content is propositional or image-like, or whether the properties represented are pure or impure representational contents.<sup>23</sup> The question of whether perception represents situation-dependent properties is orthogonal to the question of whether perceptual content is conceptual or non-conceptual.

Furthermore, the very same two aspects that are involved in veridical perception can be argued to be involved in cases of illusion and hallucination, at least if the illusion or hallucination is of a seemingly colored and three-dimensional space-occupier.<sup>24</sup> When one hallucinates an elf, one has a seeming point of view in relation to the elf. One can distinguish between the way the elf seems to fill out space from the way it seems to be presented. So the distinction between situation-dependent and intrinsic (hallucinated) properties holds for cases of illusion and hallucination in the very same way as it holds for cases of veridical perception.

In the interest of generality, I will not commit myself to a particular way of thinking about representations, other than that representations have accuracy conditions.<sup>25</sup> It is crucial, however, to be specific about *what* is represented when a subject has a scene in view. What one represents cannot simply reflect how objects are presented. It cannot be right that subjects, say, represent everything that they have in view. A myopic perceiver will represent less detail than

---

<sup>23</sup> Pure representational properties are properties of representing a content, while impure representational properties are properties of representing a content in a certain way. See Chalmers (2004) for a defense of this distinction.

<sup>24</sup> For an excellent discussion of these and related issues, see Johnston 2004.

<sup>25</sup> I discuss the representational nature of perception in more detail in chapters 3 and 4.

someone with excellent vision given the very same scene, and a cat will represent something different from a human because its sensory apparatus is set up differently. Thus, what a subject represents must depend on what is perceptually available to her. What is perceptually available to a subject is determined by what could be perceptually discerned by her, which in turn is determined by her perceptual system. The number of leaves on a tree is, for example, not perceptually available to most humans, since our perceptual system does not have the capacity to perceive numbers of similar objects far beyond five. There is a further complication. Subjects are not necessarily aware of everything that is perceptually available to them. Say I see a tree swaying in the breeze. I might not be aware of the specific movement of a particular leaf fluttering in the breeze or a bug on one of the twigs. But these are details that are perceptually available to me and thus details of which I could be aware. So what is perceptually available must be determined dispositionally: for something to be perceptually available is for it to be something of which a subject can be perceptually aware given her perceptual system.

The important point for the present argument is that the differences in our perceptual systems affect only what we *represent* of a perceived scene. It does not affect how the object is presented. It is crucial to distinguish both between what is there to be picked up and what one's perceptual system can pick up, as well as between what one's perceptual system in fact picks up and what one is perceptually conscious of. *How* one represents situation-dependent properties and *what* one represents when one has a particular scene in view depends on one's perceptual system. By contrast, the situation-dependent properties are there to be picked up regardless of whether one is the kind of perceiver that can pick them up, and regardless of whether one actually does pick them up.

It will be helpful to work through an example. Consider Peacocke's example of two same-sized trees located at different distances from a subject. According to Peacocke, the difference between the perception of each tree is a difference in sensations, not a difference in representations (1983, p. 12). On my suggestion, at least part of what Peacocke understands as a

difference in *sensations* is reduced to a difference in *representations* of situation-dependent properties.<sup>26</sup> Peacocke analyzes the difference between the actual and the apparent sizes of the trees in terms of “a duality of representational properties and properties of the two-dimensional visual field” (1983, p. 13). He identifies the properties of the two-dimensional visual field as sensational properties. By recognizing situation-dependent properties, the duality can be thought of as a duality within the representational properties. The apparent difference in size is not an aspect of the visual field, but rather an aspect of the world as it is presented to the perceiver’s location. I am not denying that there is a visual field. I am arguing that Peacocke’s trees can be explained without appeal to the psychological notion of a visual field. They can be explained with regard to the world as it presents itself to the perceiver’s location, that is, with regard to external, mind-independent, but situation-dependent properties of objects. Since the situation-dependent properties are actual properties of the object given the situational features, one can say that there is a difference between the perception of the two trees with regard to the properties represented, and thus a difference in the externally-individuated content of perception. In the veridical case, experience represents the trees as having the same intrinsic size properties, but as having different situation-dependent size properties. This does not stand in conflict with experience also having non-representational sensational properties and it does not stand in conflict with patterns of stimulation on the two-dimensional arrangement of the receptors being psychological real at the subpersonal level. The aim is not to deny that there are non-representational subjective properties of visual experience. The aim is only to insist that

---

<sup>26</sup> There are many ways in which the differences in what is represented can be understood when perceiving two same-sized trees located at different distances. One option is to argue that perception represents the fact that one tree subtends a larger visual angle from the subject’s location (Tye 1995b). Another option is to argue that one tree is represented as nearer than the other (Byrne and Hilbert 2003). According to Lycan (1995), perceptual representation is layered. Physical objects, such as trees, are represented by representing items called “shapes”, most of which are non-actual. The details of how one specifies the ways objects are presented do not matter for the discussion here. The important point for the present discussion is that the perceived difference between the two trees is not a subjective difference, but rather a mind-independent fact about the world given one’s location in the world.

more of experience should be considered in terms of representations of external, mind-independent properties.

The idea of situation-dependent properties can be understood in terms of Peacocke's notion of a scene. A scene is "the volume of the real world around the perceiver at the time of the experience, with an origin and axes in the real world fixed in accordance with the labeling of the scenario" (1992, p. 64). The scenario is a way of locating objects, properties, and relations in relation to a labeled origin and axes. A positioned scenario is an assessable content concerning a particular object at a particular time and place. The content given by the positioned scenario is correct if it corresponds to the relevant scene. Peacocke introduces his idea of a positioned scenario to provide a way of thinking about perceptual content as non-conceptual. His introduction of the notion of scenario content does not mark any shift away from sensational properties.<sup>27</sup> Peacocke still holds that every perceptual experience has non-representational sensational properties (see his forthcoming). What changes is only that he rejects the idea held in *Sense and Content* that all perceptual representational content is conceptual. So scenario contents are not supposed to replace sensations or sensational properties, rather scenario contents are introduced to account for a way of understanding the representational content of perception as non-conceptual.

However, Peacocke's notion of a scene as the volume of the real world centered on the perceiver is compatible with the notion of a situation-dependent property. The representation of the scene can be understood as involving representations of situation-dependent properties. Once representations of situation-dependent properties are recognized, the apparent difference in size between the trees can be understood as a difference in situation-dependent properties. This is just to say that once one has introduced situation-dependent properties, there is no need to appeal to sensational properties in the subject's visual field to explain the apparent difference

---

<sup>27</sup> Pace Kelly 2001.

in size of the two trees. One could object that this leads to the problem that perception will represent the trees as both the same size and as different in size:

(a) ( $x$  and  $y$  are different in size,  $x$  and  $y$  are the same size)

This content is incoherent. Since the situation-dependent properties of an object will differ from the intrinsic properties in any standard case of perception, most perceptual contents (so characterized) will exhibit a similar incoherence. Surely, perceptual content is not typically incoherent.

The content in the case at hand is, however, not incoherent, since the sense in which the two trees are different in size is distinct from the sense in which they are the same size. When the perceptual content is assessed, not only are two different things assessed (representations of situation-dependent properties and representations of intrinsic properties), they are assessed relative to different things (the object given the situational features, the object regardless of the situational features).<sup>28</sup> The incoherence of (a) is just a way of describing the puzzle of perception that I am trying to come to grips with. One can perceive an object's intrinsic properties although only the situation-dependent properties are immediately perceptually available. Distinguishing the situation-dependency from the subjectivity of perception allows one to account for the apparent incoherence while acknowledging that not only intrinsic properties, but also situation-dependent properties are represented. Furthermore, by showing that subjects represent both intrinsic and situation-dependent properties, it is possible to acknowledge that there is a sense in which perceiving the two trees as different in size is accurate: they really are presented as different in size given the situational features, that is, given the subject's location in relation to the trees.

---

<sup>28</sup> Hellie (forthcoming, p. 16) makes a similar point when he says that a perceptual judgment can be bad as a judgment, but good as an immediate visual judgment, by being a proper response to the look of an object.



These considerations bring out a second problem with the way (a) characterizes the content in question. The two trees do not look to be both the same and different in size. They look to be the same size due to the fact that the closer tree is presented as larger than the tree that is further away. So the situation-dependent properties and intrinsic properties are not on par. One could try to account for the difference between the two properties by including more than the outcome of the function:

(b) ( $x$  and  $y$  are different in size given the situational features,  $x$  and  $y$  are the same size)

This suggestion is similar to Harman's suggestion. Harman argues that the "feature of a tree from here is an objective feature of the tree in relation to here, a feature to which perceivers are sensitive and which their visual experience can somehow represent things as having from here" (1990, p. 38). But the content characterized by (b) involves more information than is required. The thesis that perception represents situation-dependent properties as well as intrinsic properties does not require that the situational features under which an object is perceived be represented. The specific angle at which one perceives a table or the precise brightness of the light is something that is arguably not perceptually available, at least to most human perceivers. More importantly, one can perceive the trees to be different in size given one's location, without being aware of one's location in relation to the trees. All that the situation-dependency thesis commits one to is that one perceives situation-dependent properties and so the *effect* of situational features. This idea involves no commitment to saying that one *represents* the situational features. Another way of bringing out the issue is with regard to the difference between relational and monadic properties. Situation-dependent properties can appear to be monadic properties. But a property can appear to be monadic and nonetheless reveal itself to be relational on reflection.<sup>29</sup> Although situation-dependent properties are relational properties they need not be represented as relational properties. As I argued, they are not relations to the mental

---

<sup>29</sup> For a discussion of similar features of properties, see Gupta 1999; see also Shoemaker 2006, p. 474ff.

state of the perceiver, but relations to external, mind-independent features, such as the perceiver's location, the lighting conditions, and other situational features that affect how the object is presented to the perceiver's location.

One might want to take these considerations into account by characterizing the content in the following way:

(c) ( $x$  and  $y$  are situation-dependently different in size,  $x$  and  $y$  are intrinsically the same size)

This suggestion is similar Tye's proposal. Tye argues that "experience represents the nearer tree as having a facing surface that differs in its viewpoint-relative size from the facing surface of the further tree, even though it also represents the two trees as having the same viewpoint-independent size" (1995b, p. 124, see also his 1991, p. 130). The problem with this characterization of the perceptual content in play is that it implies that at any given moment in perception a subject knows whether a property is a situation-dependent property or an intrinsic property. Although human perceivers might typically be able to distinguish the intrinsic shape and color of an object from the way they are presented, we can easily imagine a situation in which a subject is not able to tell whether a perceived property is intrinsic or situation-dependent. Tye goes on to argue that the nearer tree is represented as being *larger from here*. This idea implies that perceivers are aware not only whether a property is a situation-dependent property or an intrinsic property, it implies that perceivers are aware of the situational features. As I argued earlier on this strikes me as too cognitively demanding a requirement. These problems can be accounted for, by characterizing the content in the following way:

(d) ( $x$  and  $y$  are the same size',  $x$  and  $y$  are different in size''')

Metaphysically speaking the single primed property is a situation-dependent property and the double primed property is an intrinsic property. But these metaphysical facts need not be part of perceptual consciousness. An analogous analysis can be given for a case involving color properties: Let's assume you are looking at a blue couch in bright light. Due to the bright light,

the couch is situation-dependently green. Your perceptual content can be characterized in the following way:

(e) ( $x$  is green',  $x$  is blue''')

This way of characterizing the content makes it possible to acknowledge that the situation-dependency thesis involves no commitment to subjects knowing whether a property is a situation-dependent property or an intrinsic property.

So I agree with Lycan (1995) that the difference in the situation-dependent sizes of the trees is represented in experience. But I disagree that this thesis implies that something other than mind-independent properties, objects and relations are represented. Lycan argues that perceptual representations have at least two layers. One is concerned with external, mind-independent physical objects, properties, and relations; the other is concerned with mind-dependent intentional objects and relational properties, namely colored shapes: "We do visually represent the trees as being of the same size etc., but we do that by representing colored shapes and relations between them. Some of the shapes—in particular those corresponding to the trees—are represented as being larger shapes than others, as occluding others, and so forth. As with all intentional objects, it does not follow that there are any actual things that have such relational properties" (Lycan 1995, p. 95). Lycan introduces a kind of mind-dependent intentional objects to account for the two trees appearing different in size. He mirrors Hume's motivation for introducing these objects when he writes: "in Peacocke's example there are a veridical road-and-same-sized trees presentation and an illusory different-sized-tree-shapes presentation made in the same visual experience. The experience has one truth-condition that would be satisfied by the apparent different-sized shapes, and another that is satisfied by the same-sized tress. It happens that the former is actually not satisfied and in that sense there is an illusion" (1995, 129). He argues that the representation of such intentional objects, say, a colored shape, need not imply that the colored shape exists. The shape is an object, but it is not an object that

actually exists (1995, p. 90). So on Lycan's view, my experience of the trees represents two same-sized trees as well as two intentional objects, one larger than the other.

Recognizing situation-dependent properties makes it possible to acknowledge that there is nothing illusory about perceiving the trees to be presented as different in size given the situation. Indeed perceiving the trees to be presented as different in size given the situation is the *correct* way to perceive how the trees are presented in the situation. Since situation-dependent properties are actual properties of the environment, the thesis that experience represents them involves no commitment to saying that experience represents anything other than mind-independent properties, objects, and relations. Recognizing situation-dependent properties is, however, compatible with Lycan's thesis that experience represents intentional objects. Similarly, one can recognize situation-dependent properties and nonetheless be a phenomenalist or an indirect realist. On such a view, there will be mind-dependent objects or properties that stand in representation relations both to intrinsic properties and to situation-dependent properties.

But although formally consistent with phenomenism and indirect realism, recognizing situation-dependent properties undermines the motivation that has traditionally led to such views. To recap, the traditional motivation is that when one, say, moves away from a table something becomes smaller. Since it is not the table that becomes smaller, what is directly present to the mind must be something other than the table. If one recognizes situation-dependent properties, no appeal to mind-dependent objects is necessary to explain how there can be a way that objects look that is not accounted for by representing their intrinsic properties. Indeed, such cases are explained better with appeal to representations of two kinds of mind-independent properties: when one moves away from the table the situational features change while the intrinsic properties remain the same. The change in situation-dependent properties accounts for the change in the experience. If such cases are better explained with appeal to two

kinds of mind-independent properties, then once situation-dependent properties are introduced, the need to introduce intentional objects becomes obsolete.

There are, however, other reasons to think that experience represents more than external, mind-independent objects, properties, and relations. One is to account for the possibility of the phenomenological indistinguishability of hallucinatory and veridical experiences.<sup>30</sup> Another is to account for the possibility of spectrum inversion. Shoemaker introduces appearance properties to reconcile the possibility of an intentionalist account of perception with phenomenal spectrum inversion without misrepresentation.<sup>31</sup> Take two subjects, one of which is spectrum inverted. Both subjects correctly represent a red tomato as red, but their phenomenal character differs. While one subject has the phenomenal character that I have when I perceive red objects, the other subject has the phenomenal character that I have when I perceive green objects. Representations of appearance properties are supposed to account for the difference in their phenomenal character. The subjects represent the tomato as having different appearance properties, but neither of them is misrepresenting.<sup>32</sup> Appearance properties are either occurrent or dispositional properties. An occurrent appearance property is the property of currently producing a certain experience in a perceiver; a dispositional appearance property is a disposition to cause experiences of a certain sort in a kind of perceiver. According to

---

<sup>30</sup> There are different ways to understand the claim that two experiences are phenomenologically indistinguishable. Often the claim is understood to mean that the two experiences are phenomenologically identical—whatever that means. Williamson (1990) and Martin (2003) use the expression to pick out an epistemic notion. On this understanding, for two experiences to be phenomenologically indistinguishable just is for the subject not to be able to distinguish them. By phenomenal indistinguishability I mean just this claim. For a helpful discussion of this and related issues, see Siegel 2004.

<sup>31</sup> Shoemaker used to call these properties ‘phenomenal properties’ (1994, 2000, 2001), but has recently changed his terminology to ‘appearance properties’ (2003, 2006).

<sup>32</sup> Egan (2006) rejects Shoemaker’s appearance properties as the best possible way of accounting for the representational difference that grounds the phenomenal difference between inverted subjects. He argues that best candidates to play the role of reconciling the possibility of spectrum inversion and intentionalism are not properties but centering features. Two subjects, one of whom is spectrum inverted, attribute different centering features to red surfaces.

Shoemaker, the phenomenal character of experience consists in the representation of either occurrent or dispositional appearance properties.<sup>33</sup>

There are two parameters on which situation-dependent properties differ from appearance properties. While an appearance property “is such that something one sees has it just in case it appears to one to have it” (Shoemaker 2006, p. 465), a situation-dependent property is such that objects that one sees can have them without one being perceptually conscious of them as having the property. Put more simply, situation-dependent properties are properties that objects *actually* have given the situational features regardless of whether a perceiving subject is present. While appearance properties are relative to the sensory capacities of a particular kind of perceiver, no reference to a perceiver is necessary to specify the situation-dependent properties of an object other than her location in relation to the perceived object.

The second difference concerns the question of how many kinds of properties are in the external, mind-independent realm. On Shoemaker’s view, experiences of color require representing properties other than colors. We perceive colors by perceiving properties distinct from them. As a consequence, each color experience ascribes two different properties (2006, p. 467). Thau (2002) defends a view in opposition to Shoemaker, according to which we perceive colors by ascribing only one property. Thau calls it a nameless intrinsic property. But according to Thau, the property that is immediately present to mind is (as on Shoemaker’s view) not the color of the object, but rather a property distinct from the color that tells us about the color of the object. In contrast to both Shoemaker and Thau, I am arguing that experiences of colors require representing two kinds of mind-independent, external properties of the object, that is, two kinds of what Shoemaker calls “‘objective’ sensible properties”: intrinsic properties and

---

<sup>33</sup> Shoemaker (2000) dismisses the former in favor of the latter, but in his most recent work (2003, 2006) he recognizes both as playing an important role in perception. Most recently (2006), he has argued that the phenomenal character sometimes does not consist in the representation of appearance properties, but rather in the representation of one or another of the aspects of perceivable properties that he calls qualitative aspects. But like appearance properties, qualitative aspects are characterized in terms of how they affect or are disposed to affect the phenomenal character of experiences.

situation-dependent properties. So while appearance properties are relative to what a particular kind of perceiver can pick up, both intrinsic properties and situation-dependent properties are what is there to be picked up.

As I have shown, what I am concerned about is orthogonal to Shoemaker's concerns. Indeed one can embrace situation-dependent properties along with Shoemaker's appearance properties. The mind-dependent properties will stand in representation relations both to intrinsic properties and to situation-dependent properties. But what is the advantage of recognizing situation-dependent properties if one already has mind-dependent properties in place? The advantage is that it makes it possible to recognize that more of experience is subject to accuracy conditions than is traditionally acknowledged. For a perception to be accurate is not just to be of the right intrinsic properties, it is also to be of the right situation-dependent properties. On standard views, only what I call the intrinsic properties of objects are subject to misrepresentation. As a consequence, the conditions an experience must satisfy to be accurate is only to be of the right object. The way the object is presented does not matter for whether the experience is accurate. Such a view is at odds with our phenomenology. It seems that the ways objects are presented are part of the external, mind-independent realm that our perception is of. More importantly, since perception is tied to a particular time and place what is immediately perceptually available to subjects is determined by situation-dependent properties. If this is right, then the *ways* objects are presented in perception makes a difference to which perception it is. In other words, perceptions are individuated more finely than by objects and their intrinsic properties; they are individuated also by the ways objects are presented and so by situation-dependent properties.<sup>34</sup> If perceptions are not just individuated by the objects they are of, but by

---

<sup>34</sup> Tye (1995a, 2000) rejects the idea that perception is individuated by objects and their properties. He argues that perception is individuated by its functional role. I am taking for granted that perceptual content is individuated by the properties and objects that the perception is of. This thesis is agnostic on externalism or internalism about perceptual content. Furthermore, the thesis is compatible with perception also being individuated by the phenomenal character of the experience.

the way those objects are presented, then individuation of perceptual content necessarily requires appeal to facts about the situation in which the object is presented. If this is right, then perception involves representations not just of an object's intrinsic properties, but also of its situation-dependent properties. As a consequence, to assess whether an experience is accurate is not only to assess whether the right intrinsic properties are represented, but also to assess whether the right situation-dependent properties are represented. This is just to say that the satisfaction of the accuracy conditions depends on accurately representing both the object's intrinsic properties and its situation-dependent properties. So situation-dependent properties can be represented and misrepresented in just the way that intrinsic properties can be represented and misrepresented.

In contrast to situation-dependent properties, mind-dependent properties are not strictly speaking the kind of things that can be misrepresented. Of course, one can say that how things appear to me is accurate if, and only if, things are as they appear. So if it appears to me that there is something green before me, my experience is accurate if, and only if, there is before me a physical object with a green surface. But that is not to deny that it is true that things appear to me in that way.<sup>35</sup> In other words, how things to appear to one is not the kind of thing that one can be wrong about.

In the rest of this chapter, I will bring out two further advantages of recognizing situation-dependent properties. Before I do so, I will point to an obvious objection to the view as presented so far. One could object that when perceiving an object one is not necessarily aware of how it is presented given the situational features. Perceptual awareness is simply of the intrinsic properties. Intuitions diverge strongly on whether perceptual awareness includes the ways objects are presented over and above the intrinsic properties of objects. Certainly when

---

<sup>35</sup> Insisting on the fact that one cannot be wrong about how things appear to one has lead Travis (2004) and Brewer (2006) among others to argue that perception is just a relation to the world and not subject to accuracy conditions. It will lead too far astray to consider their argument in more detail here. For a discussion of the problem of misrepresenting appearance properties, see Egan, p. 16 and also p. 22.



perceiving a white wall humans typically do not attend to the details of the shadows cast on the wall. But sometimes one does attend to the shadows, for instance, when one takes a realistic painter's point of view. The important point for the present discussion is that even if one's attention is directed at an object's intrinsic properties, one can be aware of the way the object is presented. Certainly, when one's location in relation to an object changes, one is typically aware of something changing regarding the shape or size of the object.

The argument for the situation-dependency of perception requires that it is possible to be aware of the situation-dependent properties of an object without attending to them. But it does not depend on how the details of the relation between awareness and attention are resolved. There are many ways of understanding the relation between awareness and attention.<sup>36</sup> One that seems particularly conducive for the issue at stake is Brewer's (1999, in particular sections 5.3.1 and 7.4.3) distinction between foreground and background awareness.

## **2. The Argument for the Direct Perception Thesis**

Due to the role of appearances in the tradition of Locke, Berkeley, and Hume, acknowledging that objects are presented a certain way has been considered to be at odds with the intuition that we directly perceive objects. The notion of direct perception has been understood in many different ways. As I understand it, one perceives an object directly if one does not perceive it in virtue of perceiving another thing.<sup>37</sup> This conception must be contrasted with a notion according to which to perceive something directly would be (if it were anything) to be perceptually aware

---

<sup>36</sup> For helpful accounts on the distinction between awareness and attention, see Campbell 2002 and Block 2003.

<sup>37</sup> This is the way the notion of direct perception has been traditionally used. Bermúdez (2000a) refers to the same relation with the label "immediate perception".

of it without bringing any capacities to bear on what is given in perception that are not narrowly construed sensory capacities.<sup>38</sup>

If the way objects are presented given the situational features is distinguished both from how they appear to be and from representations of the way objects are presented, then there is no conflict between the intuition that we perceive objects directly and the claim that objects are presented a certain way given the situational features. Since situation-dependent properties are external and mind-independent properties of an object, we perceive an object directly by perceiving its situation-dependent properties directly.

One could immediately object that this way of thinking about perception is committed to an epistemic intermediary and thus subject to the very same objections that can be raised against indirect realism. According to indirect realism, one perceives objects indirectly by having a special kind of mind-dependent object present to mind. Such a view not only violates the intuition that one directly perceives the physical objects in one's environment, it introduces an epistemic intermediary between one's perception and the physically objects that one's perception is of, thereby cutting us off from reality. One could say that if one perceives the intrinsic properties of objects in virtue of perceiving their situation-dependent properties, then one is similarly cut off from the object as it is.

In contrast to the mind-dependent items that the indirect realist invokes, situation-dependent properties do not constitute an object that is distinct from the physical object in view. The situation-dependency thesis does not involve a commitment to any object over and above the physical object that one's perception is of. An object's intrinsic properties and its situation-

---

<sup>38</sup> The first understanding could be considered a non-epistemological characterization of direct perception (see Jackson 1977), the second an epistemological characterization of direct perception. There are other ways of characterizing direct perception epistemologically, the differences depending largely on what one means by epistemological. Snowdon (1992) characterizes an epistemological understanding of direct perception as the idea that something is directly perceived if and only if it is non-inferentially known.

dependent properties do not constitute two different objects. They are properties of the very same object.

Given that situation-dependent properties are properties of the very same object, we can account for how objects are presented while maintaining that we perceive objects directly in virtue of perceiving their situation-dependent properties directly. In this respect, the suggested way of thinking about perception differs fundamentally from indirect realist views. While the indirect realist argues that we perceive physical objects indirectly by having something mind-dependent present to mind, the thesis presented here is that we perceive objects directly by perceiving their situation-dependent properties directly.

This will not impress a skeptic. But the point of understanding how objects are presented as external and mind-independent is not to fend off skeptical worries. The point is rather to show that much of what is typically thought of in terms of the subjectivity of perception should rightly be thought of in terms of the situation-dependency of perception. Skeptical worries arise for the situation-dependent properties in just the way that they arise for the existence of an external world, precisely because they are an element of the external world.

Now to say that we perceive objects directly by perceiving their situation-dependent properties directly is not to deny that there is a relation of dependency between perceiving objects' intrinsic properties and perceiving their situation-dependent properties. I will turn to this dependency relation in the next section.

### 3. The Argument for the Perceptual Content Thesis

I have argued that the ways objects are presented can be understood as external and mind-independent properties of objects. They are a function of the intrinsic properties of objects and the situational features. Now only if representations of situation-dependent properties can be shown to be a necessary element of perceptual content, can the suggested view be any better than naïve direct realism. Let's call the thesis that representations of situation-dependent properties are a necessary element of perceptual content the *perceptual content thesis*.

The intuition on which this thesis is grounded is that one perceives an object's intrinsic properties precisely because of the way the object is presented. One perceives a table to remain constant in size as one moves away from it precisely because it fills out less of one's visual field. And one perceives the way the table fills out space precisely because of the way the shape is presented in one's egocentric frame of reference. Similarly, one perceives a uniformly white wall to be uniformly white precisely because it is presented the way white walls are presented in the very lighting conditions under which one is perceiving it.

The perceptual content thesis is a direct consequence of the spatio-temporal nature of perception. If one necessarily perceives objects from a particular location at a particular time, then what is immediately perceptually available to one is only how objects are presented. If this is right, then there is a necessary distinction between how an object is presented given the situational features and how the object is regardless of the situational features. In other words, there is a necessary distinction between the situation-dependent properties and the intrinsic properties of an object.

I have argued that one necessarily perceives objects from a particular point of view at a particular time. As a consequence what is immediately perceptually available to one is only how objects are presented. The notion of immediate perceptual availability must be clearly distinguished from the notions of immediate awareness, non-inferential perceptual knowledge,

and perceptual certainty. The thesis that situation-dependent properties are immediately perceptually available does not entail that situation-dependent properties are the object of immediate awareness. Nor is the idea that we know the situation-dependent properties non-inferentially, thereby implying that we know intrinsic properties inferentially. Finally the idea that situation-dependent properties of perception are immediately perceptually available should not be understood to imply that awareness of situation-dependent properties is certain or that situation-dependent properties are not subject to the possibility of misrepresentation. There is a priority to representations of situation-dependent properties insofar as the way objects are presented determines what is immediately perceptually available to subjects.<sup>39</sup> But this priority does not imply any priority of situation-dependent properties in perceptual consciousness. Typically our perceptual consciousness is primarily of intrinsic properties. Furthermore, the idea is not that one *first* perceives an object's situation-dependent properties and only in a *second stage* comes to perceive its intrinsic properties by bringing cognitive capacities to bear on what is immediately perceptually available to one.

If only the situation-dependent properties of an object are immediately perceptually available, then representing its intrinsic properties must be dependent on representing its situation-dependent properties. If representing intrinsic properties is dependent on representing their situation-dependent properties, then the representation of situation-dependent properties must be a necessary part of perceptual content. So perceptual content will crucially differ from

---

<sup>39</sup> This is a claim about what is immediately perceptually available, not about what is the most primitive representation. Whether representations of situation-dependent properties or representations of intrinsic properties are more primitive is an empirical question. It would lead too far afield to discuss it here. The two dominant competing theories of object perception in cognitive psychology are those that think of viewpoint-invariant representation of objects as the most primitive and those that think of viewpoint relative representations of objects as the most primitive. For an excellent discussion of this and related topics, see Prinz 2002 (in particular chapters 6 & 7).

the content of a thought about the same object insofar as a thought about an object does not necessarily represent its situation-dependent properties.<sup>40</sup>

There are many other ways of thinking about the difference between perceptual content and the content of thought. One is to say that the fundamental difference between perception and thought is that there are phenomenal or sensational properties present in perception but not in thought.<sup>41</sup> Another is to say that the difference between the content of perception and the content of thought is a structural or functional difference. Brandom (1994) argues, for instance, that the role of thoughts in language is inferential, while the role of perceptions is non-inferential. According to McDowell (1994), we employ the very same conceptual capacities passively in experience that we employ actively in thoughts. Dretske (1995) distinguishes the content of experience and thought with regard to the origin of their functions. According to Tye (2000), thoughts are representations in a linguistic medium, while experiences are representations in an image-like medium. I stay agnostic on whether perception and thought differ phenomenally and whether their content differs structurally or functionally over and above the difference in what is represented. If the argument I have given holds at all, it holds regardless of what stance one takes on these other possible differences between the content of perception and the content of thought.

---

<sup>40</sup> Demonstrative thoughts are a special case. Arguably demonstrative thoughts are based on perception and to that extent mirror the situation-dependency of perception.

<sup>41</sup> There are exceptions: Siewart (1998) as well as Horgan and Tienson (2002) argue that mental states, such as beliefs and desires, have phenomenal character as well.

#### 4. Conclusion

If the fundamental philosophical interest in perception is to find an answer to the question of how perception can yield knowledge of the world, then the way one gains knowledge through perception must be taken seriously. I have argued that one gains knowledge through perception by being presented with objects subject to situational features, such as the lighting conditions and one's location in relation to the object. My aim was to show that in order to explain how perception can give us knowledge of objects, perception is best understood as a three-place relation between subjects, objects, and situations. I have argued that in order to give such an explanation it is important to recognize situation-dependent properties: external, mind-independent properties that an object has given the situational features. By recognizing situation-dependent properties the situation-dependency of perception can be distinguished from the subjectivity of perception.

On standard views, the conditions an experience must satisfy to be accurate is only to attribute the right intrinsic properties to the right object. The way the object is presented does not matter for whether the experience is accurate. Such views are at odds with our phenomenology. It seems that the ways objects are presented are part of the external, mind-independent realm that our perception is of. The ways objects are presented are the kind of things that can be represented and misrepresented in just the way that intrinsic properties can be represented and misrepresented. By understanding the ways objects are presented as mind-dependent, situation-dependent properties we can recognize that more of experience is subject to accuracy conditions than standard views acknowledge. The conditions an experience must satisfy to be accurate is not just to be of the right intrinsic properties, but is also to be of the right situation-dependent properties. Another way of bringing out the very same point is to say that perceptions are individuated not only by objects and their intrinsic properties; they are individuated also by the way those objects are presented given the situational features. So the

ways objects are presented are objective contents of subjective acts of consciousness, in the very same way as objects and their intrinsic properties are objective contents of subjective acts of consciousness.

The suggested way of thinking about perception is similar to an indirect realist approach in that perceiving the intrinsic properties of objects is dependent on perceiving something else. But in contrast to an indirect realist approach the intermediary is not a subjective, mind-dependent intermediary. The intermediary is rather a second kind of external, mind-independent property of the very same object, namely a situation-dependent property. Perception of intrinsic properties is dependent on perception of situation-dependent properties.

An indirect realist approach can recognize situation-dependent properties. On such a view, there will be mind-dependent properties that stand in representation relations both to intrinsic properties and to situation-dependent properties. But although formally consistent with indirect realist views, recognizing situation-dependent properties undermines the motivation that has traditionally led to indirect realism. If one recognizes situation-dependent properties, no appeal to mind-dependent properties is necessary to explain how it can be that there is a way that objects look that is not accounted for by representing their intrinsic properties. So one might as well drop the mind-dependent appearances once situation-dependent properties are introduced. Doing so allows one to acknowledge that objects are presented a certain way given the situational features, while holding on to the intuition that we directly perceive the objects that our perceptions are of. Since situation-dependent properties are external and mind-independent properties of an object, we perceive an object directly by perceiving its situation-dependent properties directly.

In the final part of this chapter, I argued that perceiving the intrinsic properties of objects is dependent on representing their situation-dependent properties. If this is right, then representations of situation-dependent properties are a necessary part of perceptual content.



Insofar as perceptual content reflects the fact that perception is necessarily tied to a particular time and place, it crucially differs from the content of thought about the same object.

So against phenomenologists and indirect realists, I argued that the direct object of perception is not something mind-dependent, but is rather an external world object. Against naïve direct realists, I argued that what is immediately perceptually available to us are not the intrinsic properties of objects, but only their situation-dependent properties. Against all three views, I argued that the way objects are presented should be understood in terms of mind-independent, situation-dependent properties. So I conclude that the traditional model of perception as a two-place relation between subjects and objects should be rejected in favor of a model of perception as a three-place relation between subjects, objects, and situations.

## II. ACTION AND SELF-LOCATION IN PERCEPTION\*

I offer an explanation for how subjects are able to perceive the intrinsic spatial properties of objects, given that subjects always perceive from a particular location. The argument proceeds in two steps. First, I argue that a conception of space is necessary to perceive the intrinsic spatial properties of objects. This conception of space is spelled out by showing that perceiving intrinsic properties requires perceiving objects as the kind of things that are perceivable from other locations. Second, I show that having such a conception of space presupposes that a subject represent her location in relation to perceived objects. More precisely the thesis is that a subject represents her location as the location from which she both perceives objects and would act in relation to objects were she to act. So I argue that perception depends on the capacity to know what it would be to act in relation to objects.

It is striking that only agents are perceivers. I argue that it is no coincidence. Perceivers are not just passive receivers of information. They are agents in the world. The thesis that perception is dependent on action has a long history in philosophy, but has rarely been argued for in any detail. Aristotle can be read as arguing in *De Anima* that only beings that are self-movers can perceive. More recently, Baldwin (1998, 2003), Hurley (1998), Kelly (2001), Thompson and Valera (2001), and Noë (2004, forthcoming) have argued in different ways that perception and action are interrelated.<sup>42</sup> I will defend a version of the thesis that perception depends on action. I

---

\* I would like to thank Keith Allen, Bill Brewer, Wylie Breckenridge, Quassim Cassam, Stephen Engstrom, Anil Gupta, Hemdat Lerman, Jesse Prinz, Mohan Matthen, John McDowell, Johannes Roessler, Jonathan Schaffer, Declan Smithies, and Evan Thompson for detailed comments on earlier versions of this chapter. I am indebted to Rick Grush, Susan Hurley, Sean Kelly, Anders Nes, and Kieran Setiya for long discussions on the topic of this chapter. I am grateful also to audiences at the Universities of Oslo, Oxford, Pittsburgh, and Warwick as well as the Aristotelian Society and Mind Association joint sessions. Thanks, finally, to three anonymous referees and the editor of *Mind* for their thoughtful comments and suggestions.

<sup>42</sup> Arguably our perceptions guide our actions by presenting objects in ways appropriate for high-level action selection. Gibson (1979), Clark (2001), and Matthen (2005) defend different versions of such an instrumental relation between perception and action. I am not denying that action and perception are related in an instrumental manner, but the thesis that I am arguing for is stronger than that perception is instrumentally related to action. The thesis is that perception is constitutively dependent on action.

reject the thesis that perception depends on token actions and will argue that perception depends rather on the *capacity* to act.

In section 1, I discuss Noë's sensorimotor knowledge thesis. The basic idea of the thesis is that perceiving the spatial properties of objects involves practical knowledge of how the appearances of objects change as our spatial relation to perceived objects changes. This thesis is subject to a host of objections. In the rest of this chapter, I present a different understanding of the relation between action and perception. My argument involves two steps. First I show that a practical understanding of space is necessary to perceive the intrinsic spatial properties of objects. Call this the *spatial know-how thesis*. In a second step, I show that this thesis presupposes that subjects represent their location in relation to perceived objects. More specifically, I argue that subjects represent their location as the location from which they both perceive objects and would act in relation to objects were they to act. Call this the *self-location thesis*. I argue for the spatial know-how thesis in section 2 and for the self-location thesis in section 3.

The motivation for discussing the action-dependency of perception is to answer the question of how one can perceive the intrinsic spatial properties of objects, even though one always perceives objects from a particular point of view. Despite the fact that one perceives objects from a location, one can perceive their perspective-independent shapes; one perceives two same-sized objects located at different distances from oneself as the same size; and—more contentiously—one perceives objects as having surfaces facing away from oneself, even though one is visually confronted only with the surfaces facing towards oneself.<sup>43</sup> More generally one perceives the intrinsic spatial properties of objects, even though what is immediately perceptually available is only the ways objects are presented in one's egocentric frame of

---

<sup>43</sup> There are breakdown conditions. When one perceives an object from sufficiently close up, one is no longer able to tell whether the perceived object is, say, a sphere or a cube. Similarly, when one is far away from an object, one is no longer able to perceive its specific spatial properties.

reference. By *intrinsic properties* I mean the perceivable properties that an object has that are independent of a perceiver's location. For the present discussion the most salient intrinsic properties are the shapes and sizes of objects. The way an object is presented in a perceiver's egocentric frame of reference is determined by the intrinsic properties of the object and the location of the perceiver. If the way an object is presented is recognized as being external and mind-independent, it can be analysed in terms of properties the object has, namely *situation-dependent properties*. Situation-dependent properties are properties of the object given the perceiver's location. As I argued in the last chapter, they are a function of the object's intrinsic properties and the perceiver's location.

The fact that only situation-dependent properties are immediately perceptually available is a direct consequence of the spatio-temporal nature of perception. If one necessarily perceives objects from a particular location at a particular time, then the rear-sides of objects, say, are not immediately perceptually available, whereas the surfaces in the line of sight of the perceiver are immediately perceptually available. One can imagine subjects whose sensory organs are extended such that they can perceive an object from several angles simultaneously. The location from which a subject perceives can be extended in all sorts of ways. The location's extension and the angle of the visual field depend on the particular kind of perceiver. But it is a necessary feature of perception that subjects perceive from somewhere at some time. As a consequence there is a necessary distinction between how an object is presented given one's location and how the object is independently of one's location. In other words, there is a necessary distinction between the situation-dependent properties and the intrinsic properties of an object.

If it is right that one always perceives objects from a particular location, but nonetheless can perceive their intrinsic properties, then an explanation is needed for how this can be so. There are at least two ways of understanding this demand for explanation. One is as a demand for a scientific explanation of how sensory systems filter out invariant features of the environment, such as the size and shape of objects, from the variant features that are due to the

subject's location in relation to the perceived object. Such a scientific explanation concerns a process on a subpersonal level the outcome of which may or may not be available to perceptual consciousness. Another way is to understand the demand for explanation epistemologically: if all that is immediately perceptually available is the ways objects are presented given the perceiver's location, then an explanation is needed for how the perceiver can have knowledge of the intrinsic properties of objects through perception. Such an epistemological explanation concerns conscious mental states on a personal level.<sup>44</sup> These explanatory tasks are no doubt interconnected. But I think it will prove useful to explore the epistemological aspect of the problem.

The aim of this chapter is to contribute to the epistemological explanation. In order to do so, it is necessary to specify what makes it possible to perceive the shape and size of objects despite the fact that what is immediately perceptually available is only the ways objects are presented in one's egocentric space. Call the *abstraction-condition* the condition that must be satisfied to perceive intrinsic properties of objects. The label 'abstraction-condition' is fitting, as there is a sense in which one perceives intrinsic spatial properties in abstraction from the vantage point one happens to have. With this label in hand the aim of this chapter can be formulated more precisely as identifying the abstraction-condition by considering the action-dependency of perception.

One objection that could immediately be raised is that there is no reason to appeal to action to explain how it is that we perceive intrinsic spatial properties. It might be argued that the reason why we perceive the shape and size of objects is that we have a concept of objects as

---

<sup>44</sup> Justifying this contrast between scientific and epistemological explanations would require a dissertation of its own. For a discussion of the problems of demarcating philosophical and scientific explanations in philosophy and cognitive science, see Shapiro 2004. Hartfield (1990) shows how the very same questions about the nature of spatial perception change their focus when discussed from a scientific or a philosophical perspective. For a defence of the distinction between personal and subpersonal levels of explanation, see Burge 1986, McDowell 1994, and Hornsby 2000. For a criticism, see Bermúdez 2000b and Davies 2000.

solid and temporally located three-dimensional space-occupiers. Such an approach, however, would over-intellectualize perception. It is far from obvious that a concept of objects is necessary to perceive objects. It is important to acknowledge that perception is a primitive cognitive skill and to bring out the minimal requirements for perception. More importantly, the very idea of a spatial object is arguably grounded in perception. This is just to say that one has the concept of objects as solid, three-dimensional space-occupiers only because one's perception is structured in a certain way. If the aim is to bring out what this structure is, then presupposing that perception is so structured would beg the question.

The argument of this chapter is limited to visual perception of spatial properties. So when I speak of perceivers, I mean beings that are capable of visually perceiving the intrinsic spatial properties of objects. When I speak of action, I do not have in mind a notion that has anything to do with reason-giving practices—so I do not have in mind the notion that is often used today in philosophical debates on action. I have an older notion in mind; one that Kant makes use of when he speaks of *actio* as one side of the contrast pair *actio* and *reactio*. I will discuss the notion of action at issue in more detail in section 3. Among other things, it will have to be discussed whether self-movement is necessary for perception.

## **1. The Sensorimotor Knowledge Argument**

A recent influential approach to meeting the abstraction-condition is to argue that perception involves practical knowledge of the effects that changes in our spatial relation to objects have on the appearances of these objects. Call this the sensorimotor knowledge account. There are two elements to such an account. One is that experience of the intrinsic spatial properties of objects requires practical knowledge of the different ways objects look given different viewpoints on the objects. Call this the *variation thesis*. The sensorimotor knowledge argument conjoins the variation thesis with the thesis that perception is dependent on action. The basic

idea of the *action-dependency thesis* as it figures in the sensorimotor knowledge argument is that one's perception of, say, a round plate is constituted by sensorimotor knowledge of the form: if one were to move to the right, the sensory stimulation caused by the plate would change thus and so, namely in the characteristic way that the sensory stimulation caused by circular objects varies as one's spatial relation to the perceived object changes. Grasping such practical conditionals connecting action and perception is what allows one to perceive the intrinsic shape of the object. The idea is not that perception involves explicit knowledge that such and such laws of sensorimotor contingencies hold, but rather that perception involves practical knowledge that is expressed in one's expectations and readiness to act on one's perception. It might be possible to have such knowledge explicitly, but what is involved in perception need not be explicit knowledge. It is important to note that the variation thesis is independent of the more controversial action-dependency thesis.<sup>45</sup>

Noë (2004) presents a version of this view. On his view, we perceive a plate as circular *because* we have knowledge of the way its appearance changes as the spatial relation between oneself and the object changes. The 'because' that forms the relation between perceiving the plate as circular and having it presented to us can be understood purely causally or constitutively.<sup>46</sup> Noë understands the ways objects look as two-dimensional geometrical projections of the objects in view: 'We experience that the plate is round and that it looks elliptical from here. Its elliptical look from here is a genuine property of the plate' (2004, p. 172). No doubt, geometrical projections play a role in the processing of perception,<sup>47</sup> but Noë insists that circular objects look elliptical to us over and above looking circular. As he puts it:

---

<sup>45</sup> For a discussion, see Matthen 2006.

<sup>46</sup> Noë's formulations vary from 'perceiving is *constituted* by the exercise of a range of sensorimotor skills' (2004, p. 90, emphasis added) over 'how things look is *constrained* by my sensorimotor knowledge' (p. 90, emphasis added) to 'perceptual experience *acquires content* as a result of sensorimotor knowledge' (p. 9, emphasis added). For a discussion of causal and constitutive readings of the sensorimotor knowledge argument, see Block 2005.

<sup>47</sup> For a defence of this idea, see Marr 1982.

‘A satisfying account of perception must explain how the silver dollar can look both circular and elliptical’ (forthcoming, p. 1). Noë understands the ways objects are presented in terms of so-called P-shapes and P-sizes. A P-shape is ‘the shape of the patch needed to occlude the object on a plane perpendicular to the line of sight’ (2004, p. 83). Similarly, a P-size is ‘the size of a patch we can imagine drawn on the occlusion plane’ (2004, p. 83). The idea that a circular object at an angle looks elliptical implies that the ways objects are presented are understood as projections on a two-dimensional plane located perpendicular to one’s line of sight.

There is no reason to think of the distinction between the ways objects are presented given one’s location and the way they are independently of one’s location in terms of a distinction between two-dimensional and three-dimensional spatial properties. Objects are presented in three-dimensional space and, arguably, we are aware of the ways objects are presented in three-dimensional space. Denying that one perceives two-dimensional geometrical projections of objects in the normal case is not to deny that one can take a realistic painter’s point of view. When one looks at an object as a realistic painter does, one is aware of the planar geometrical projection of the circular object. Looking at an object in such a way requires that one have an understanding of a planar geometrical projection as well as awareness of one’s location in relation to the perceived object. There is, however, no reason to think that one must be aware of one’s vantage point in such a sophisticated way in a regular case of perception.

One way to circumvent this problem is to understand sensorimotor couplings as playing a role only at a subpersonal level. Hurley (1988) argues along these lines. She understands the interdependence between the contents of intentions and of perceptions on a personal level as emerging from the co-dependency of perception and action on dynamically circular subpersonal relations. In particular, she argues that feedback from motor outputs to sensory inputs plays a critical role within the subpersonal dynamic system. So in contrast to Noë, she explains perception of intrinsic spatial properties in terms of the way sensorimotor information processed on a subpersonal level feeds into our perceptual awareness. In a similar vein, Thompson and



Varela (2001) argue that what an organism senses is determined by cycles of sensorimotor coupling with the environment, which are in turn mediated in the brain by multiple neocortical regions and subcortical structures.

Such a subpersonal version of the sensorimotor knowledge argument can avoid the problem of how to specify *what* it is that subjects are aware of as changing as their spatial relations to perceived objects changes. But by doing so it loses sight of the fact *that* subjects can be aware of changes regarding the situation-dependent properties of objects. An approach on which representations of situation-dependent properties play a role only on a subpersonal level will not do, if we acknowledge that subjects can be aware of the situation-dependent properties over and above the intrinsic properties of objects.

This first objection does not go to the heart of the sensorimotor knowledge argument, since the argument does not require that appearances be thought of as two-dimensional geometrical projections. We can reject the idea that the ways objects are presented are two-dimensional planar projections, but nonetheless hold on to the idea that perception is sensitive to the difference between the ways objects look from our point of view and how they fill out space. We can distinguish between intrinsic and situation-dependent properties of objects, both of which are structured in three-dimensional space and both of which are available to perceptual consciousness. By doing so, we can acknowledge that perception is egocentrically organized, while accounting for the fact that we perceive the intrinsic spatial properties of objects.

The sensorimotor knowledge argument is however subject to two more fundamental objections. The second objection concerns the variation thesis. To perceive a single enduring and distinct object one must be able to recognize two distinct appearances as appearances of the same object. Furthermore, one must be able to distinguish the case in which two appearances are appearances of the same object from cases in which two appearances are of different

objects.<sup>48</sup> Insofar as the variation thesis requires at least two encounters with an object (either past or present), it raises the question of how one can tell whether or not the encounters are encounters with the same object. Sensorimotor knowledge allows one to recognize any particular appearance of an object as only one of many possible ways that an object can present itself. But this thought is not the same as the thought that different appearances are recognized as of a single enduring object. Furthermore, if perception of objects requires having different encounters with objects, then the problem arises of how the appearances that arise from these different encounters are unified into a perception of an object. Even if we presuppose that the appearances are appearances of the same object, this would still leave open the question of how the appearances are integrated into the perception of an object. I will return to this objection at the end of section 2. I will refer to it as the *unification objection*.

The third objection concerns the action-dependency thesis, more specifically, the role of *movement* in sensorimotor knowledge. If the requirement is simply that our perceptions be integrated in sensorimotor patterns allowing us to anticipate how our perceptions would change were our spatial relations to the perceived objects to change, then it is not obvious why it would not be sufficient that either our body be moved in relation to perceived objects or objects be moved in relation to our bodies. There is no reason why perception should require self-movement. Call this the *sentient statue objection*.

The response to this objection depends on the details of the notion of sensorimotor knowledge at issue. A modest version of the sensorimotor knowledge argument stops short at the thesis that perception involves practical knowledge of the effects of movement on perception. According to a radical version, sensorimotor knowledge can only be acquired through token actions. Noë defends the radical version, arguing that ‘only through *self-*

---

<sup>48</sup> This line of thought is due to Strawson (1966), Evans (1980), and Cassam (1997).

movement can one *test* and so *learn* the relevant patterns of sensorimotor dependence' (2004, p. 13).

On the modest version of the sensorimotor knowledge argument, it is not obvious why it would not be sufficient to be a sentient statue. As a consequence, the thesis that perception is dependent on action loses its appeal. On the radical version, however, the ability to self-activate movement is necessary for perception. The possibility of a perceiving subject that never self-moves is ruled out, since the sensorimotor knowledge that is said to be necessary for perception can only be gained through token actions. So, on the face of it, the sentient statue objection does not hold against the radical version of the sensorimotor knowledge argument.

But the radical version presupposes the problematic idea that perceiving an object's shape requires that one know the sensorimotor profile of the shape-type that the object exemplifies. So perceiving a round object requires that one know the sensorimotor profile of round objects. If one has not been acquainted with an object exemplifying the same spatial properties, then one cannot, on Noë's account, have the relevant sensorimotor knowledge to perceive the object. Since sensorimotor knowledge can only be acquired by testing the relevant patterns of sensorimotor dependence, one can only have acquired that sensorimotor knowledge through self-movement in relation to objects that exemplify the same shape-type as the perceived object.

No doubt one typically learns the token shapes of particular objects through perception. But *contra* Noë, it cannot be right that one can only perceive the shape of a particular object once one has learnt the patterns of sensorimotor dependence for the relevant shape-type. The idea that one learns to perceive shape-types is odd in light of our capacity to perceive the spatial properties of objects without previously having seen an object exemplifying the same spatial properties.<sup>49</sup> If this observation is correct, then it cannot be right that perceiving an object

---

<sup>49</sup> Noë acknowledges that 'as we get to more complicated forms, such as animal bodies, plants, and so forth, the mathematics needed to determine the sensorimotor profile of an object gets more complicated'. But he holds on to the thesis that sensorimotor knowledge is necessary for specific shape-types by

require that one has learnt the specific sensorimotor profile of the shape-type that the object exemplifies. One could defend the sensorimotor knowledge thesis by arguing that when confronted with an object that exemplifies an unknown shape-type, token actions are necessary to perceive the object's shape. But as I argue in section 3, it cannot be right that token actions are necessary in the actual situation of perception.

These problems can be circumvented if perception is not understood as depending on specific knowledge of the ways objects look from different perspectives in the first place. In the rest of the chapter, I provide an alternative account of what is required to perceive intrinsic spatial properties. I argue that the requirement for perceiving intrinsic spatial properties is not knowledge of how objects look from different perspectives. The requirement is that one have a practical understanding of space. I will return to the sentient statue objection at the end of section 3. I will argue there that perception is not dependent on (past or present) token actions, but rather on the capacity to act.

## **2. The Spatial Know-How Argument**

I have considered one way of meeting the abstraction-condition. I will now argue for an alternative approach to meeting the abstraction-condition. The main thesis is that a practical understanding of space is necessary to perceive the intrinsic spatial properties of objects. I spell out the spatiality of perception by arguing that perceiving intrinsic spatial properties requires perceiving objects as perceivable from locations other than the one that one happens to occupy.

When perceiving an object one is immediately visually confronted only with its situation-dependent properties, that is, with the way the object is presented in one's egocentric frame of reference. Nonetheless there is a sense in which one's perception is not just limited to the

---

asserting that 'our visual perceptual skills, however, are that sophisticated, encompassing these complex (but ultimately manageable relationships' (2004, p. 78).

surfaces of the object that are in one's line of sight. How can this fact be accounted for? One might say that a subject must have an understanding of objective space that allows her to step outside her egocentric frame of reference and map objects into an objective, viewpoint-independent frame of reference. The idea is that objects are mapped independently of a point of view.

The difference between imagination, perception, and visualization is helpful to consider the possibility that perception be organized in an objective frame of reference. One might be able to *imagine* a shape without having a point of view on it. We do so when we represent, say, a circle as the set of all points equidistant from one point. It is not clear, however, what it could be to visualize an object without having a (pretend) vantage point. One can *visualize* an elephant. At any moment of visualization one will have a pretend vantage point on the scene. Although there are no physical constraints on switching viewpoints when visualizing an object, at any given moment there are physical constraints on what one can visualize from one's pretend vantage point.<sup>50</sup> So even when a subject visualizes an object she has a pretend point of view.

This difference between imagination, on the one hand, and visualization and perception, on the other, is a direct consequence of the spatial nature of perception. As argued above, perception is the kind of mental activity that necessarily occurs from a location. The spatial nature of perception pertains to cases of visualization, since cases of visualization mirror perceptual states. When a subject visualizes an object, she necessarily visualizes the object from a pretend point of view. Insofar as perception and mental states that mirror perceptual states necessarily occur from a (pretend) point of view, one cannot step outside one's egocentric frame of reference when perceiving an object, nor can one step outside one's pretend egocentric frame of reference when visualizing an object. If this is right, then the abstraction-condition cannot be met by mapping objects in a way that leaves out (potential) viewpoints altogether. This is just to

---

<sup>50</sup> I treat perceiving and visualizing in analogy to one another. For discussions of the Berkeleian distinction between perceiving and visualizing, see Williams 1966 and Peacocke 1985.

say that the distinction between perception of situation-dependent properties and perception of intrinsic properties cannot be understood on the model of a distinction between egocentric and objective frames of reference.

Now if it is not possible to step outside of one's egocentric frame of reference, then how can one transcend the egocentricity of perception to perceive intrinsic spatial properties? I will consider three further possible ways of meeting the abstraction-condition and will argue for the third. The first option is to have a conception of *the way* an object looks from viewpoints other than one's own. The second option is to have a conception *that* the object is perceived from points of view other than one's own. The third option is to have a conception that the object is perceivable from points of view other than one's own.

On the first option, perceiving inherent spatial properties requires having knowledge of what objects look like from points of view other than one's own. This is just the variation thesis on which the sensorimotor knowledge argument relies. On this account, knowledge of what objects look like from other locations constitutes perceptual content. Insofar as such knowledge figures in perceptual content, perception of objects is not limited to the information projected onto one's retina. As I argued in the last section, the view requires at least two encounters with an object (either past or present). One of the problems with this account is that it is only once one has unified two appearances of the object into the perception of an object that the relation to the object counts as a perception.

On the second suggestion, perceiving inherent spatial properties requires practical knowledge *that* objects are perceived from points of view other than one's own. Kelly (forthcoming) defends a version of this view. The view is originally formulated by Merleau-Ponty: 'To see is to enter a universe of beings which *display themselves* ... Thus every object is the mirror of all others. When I look at the lamp on my table, I attribute to it not only the qualities visible from where I am, but also those which the chimney, the walls, the table can 'see'; the back of my lamp is nothing other than the face which it 'shows' to the chimney. I can

therefore see an object insofar as ... each of them treats the others around it like spectators of its hidden aspects and a guarantee of their permanence' (1945, p. 68). Such an approach avoids the problem of having knowledge of what objects look like from other locations and unifying this knowledge into the perception of an object. It leads, however, to the bigger problem of how the different possible *actual* viewpoints can be unified into the perception of the object. So while the idea that perception involves knowledge of *what* an object looks like from viewpoints other than one's own (Noë's variation thesis) leads to the problem of how these different appearances of the object are unified into the perception of the object, the idea that perception involves knowledge *that* the object is perceived from other points of view (Kelly's thesis) leads to the problem of how the different actual points of view are unified into the perception of the object.

### ***2.1 Allocentric Frames of Reference and Alter-Ego Vantage Points***

I have considered three ways of meeting the abstraction-condition: the idea that we map objects in an objective, viewpoint-independent frame of reference, Noë's idea that perception involves practical knowledge of the ways objects look from points of view other than one's own, and Kelly's idea that perception involves practical knowledge that objects are perceived from points of view other than one's own. In this section, I will develop a way of meeting the abstraction-condition that avoids the problems of the options considered so far. The basic idea is that perceiving intrinsic spatial properties requires that objects are perceived as *perceivable* from points of view other than one's own. In contrast to the variation thesis, this idea does not require that a subject have knowledge of what objects look like from other locations. It requires only that a subject must have a practical conception of space that involves understanding that there are different possible perspectives on any three-dimensional space-occupier. This is what I call the *spatial know-how thesis*.

This thesis can be spelled out more precisely by introducing the notion of an alter-ego vantage point.<sup>51</sup> An alter-ego vantage point is a location that the perceiver understands as a possible vantage point. This notion is closely connected to the familiar notion of an allocentric frame of reference. An allocentric frame of reference is a frame of reference that is centred on a point in space distinct from the one that the perceiver is occupying. An alter-ego vantage point is a particular way of understanding the location on which an allocentric frame of reference is centred. It is a location that the perceiver understands as a possible point of view. Campbell's distinction between absolute and egocentric space is helpful here (1994, pp. 5f.). While absolute space is the conception of space that a disengaged theorist has, egocentric space is the conception of space that a participant has, that is, a subject who has something to do in that space. An alter-ego vantage point is a vantage point that one has as a participant, more precisely, as a *potential* participant since it is not the location that one is occupying in the moment of perception. Another way of articulating the same point is that an alter-ego vantage point is an allocentric frame of reference that is engaged. It is the focal point of a potential egocentric frame of reference. In light of the notion of an alter-ego vantage point, the spatial know-how thesis can be formulated more precisely. Perceiving intrinsic spatial properties requires entertaining alter-ego points of view on the object.<sup>52</sup>

Now why is moving from egocentric to allocentric frames of reference not sufficient to perceive the intrinsic spatial properties of objects?<sup>53</sup> Why do we need alter-ego points of view?

---

<sup>51</sup> I owe this label to Grush. See his 2001.

<sup>52</sup> The question of how allocentric and egocentric frames of reference are combined in alter-ego points of view is an open empirical question. For an overview of competing explanations, see Paillard 1991 as well as Klatzky 1998. For a discussion of the neural mapping from egocentric to allocentric spatial frames of reference, see Goodale and Anderson 1998. For a discussion of the same issue with regard to cognitive processing, see Iachini and Ruggiero 2006. Finally, for a discussion of the mapping of allocentric and egocentric frames of reference in a computational model of spatial development, see Hiraki and Phillips 1998. Grush (2001, see in particular Sect. 2.3) and Thompson (2007, see in particular Ch. 9) provide helpful philosophical interpretations of this literature.

<sup>53</sup> It is conceivable that a creature that is able to navigate in space has neither alter-ego vantage points nor egocentric frames of reference. Indeed, there are creatures that navigate in space by relating to a fixed point in their environment, for instance the South or North Pole. So they navigate in space by relating



The reason is that the information provided in an allocentric frame of reference is only available to us through a potential egocentric frame of reference. In order to show why, it is necessary to consider in more detail the nature of the egocentric organization of perception. Determining the egocentric frame of reference for *movement* is straightforward. It is determined by the direction of the movement and the bodily parts relevant for the movement. The coordinates of the movements involved in walking are very different from the coordinates of the movements involved in writing. In the one case, they are centred on the main axis of the body; in the other case, they are centred on the hand. This might lead one to think that the frame of reference of visual perception is centred on the eyes. But this cannot be right. As the following example shows, the position of one's body in relation to a perceived object is at least as important as the position of one's eyes. When one turns one's head to the left one does not perceive the objects to the left of one's body as in front of oneself. If this is right, then the coordinates of perception cannot be centred simply on one's eyes.

What else is involved? One conceivable answer is to say that the axes of the egocentric frame of reference are determined by minimal spatial concepts, such as up, down, left, right, in front, and behind, with the centre identified as here. One might object that this suggestion implies that only creatures that have the concept of, say, left can perceive objects as being to their left.<sup>54</sup> There are good reasons not to limit perception to creatures that have conceptual skills. One can, however, avert this objection, while holding on to the basic idea of the suggestion. What is crucial for determining the coordinates of perception are the spatial locations from which possible movements originate and the directions of the relevant movements. The axes of our egocentric frame of reference are determined by our *dispositions to*

---

only to an allocentric frame of reference. O'Keefe (1998) describes this model of spatial navigation as the slope-centroid model. Although a creature can *navigate* in space in such an allocentric frame of reference, the information provided in the allocentric frame of reference is arguably not available for perceptual consciousness. I am arguing that the information cannot be available for the creature's perceptual consciousness because it is not connected to its egocentric frame of reference.

<sup>54</sup> This objection is due to Jesse Prinz.

*act* that bring about a *practical* understanding of basic spatial directions.<sup>55</sup> This practical understanding of basic spatial directions is a kind of *spatial know-how*.<sup>56</sup> The idea of spatial know-how is related to Evans' thought that an understanding of spatial directions is not simply related to the place we occupy, but is related rather to the possibilities for action that one has given the way one occupies that location. When I tilt my head, I do not see objects on the verge of sliding off the surface of the earth. The reference of 'up' is not determined by the direction of my head, but rather by how I would move my body given the position of my body.<sup>57</sup>

Now one could object that having such spatial know-how just is having basic spatial concepts. It is unproblematic to think of the spatial know-how in terms of spatial concepts as long as one is willing to ascribe these concepts to any creature that is capable of object-directed movement and capable of perceiving the intrinsic spatial properties of objects. It is unproblematic, since the spatial concepts are not what enable spatially oriented movement and actions. The direction of explanation goes the other way. Dispositions to act bring about the spatial orientation that allows subjects to locate objects in their visual field. This means that one has spatial concepts only insofar as these concepts are grounded in one's dispositions to act. In other words, one's perception is structured egocentrically not because one has spatial concepts, but because one has dispositions to act. These dispositions to act allow one to have the spatial know-how that can be expressed with spatial concepts.

I have considered three different ways of determining the axes of the egocentric structure of perception: through the location of sensory organs, through spatial concepts, and through

---

<sup>55</sup> For a discussion of dispositions to act, see Mumford 1998 and 1999. For a helpful discussion of different ways of representing space, see Grush 2004 and forthcoming.

<sup>56</sup> Following Ryle (1949), I am using 'know-how' to refer to a practical, non-intellectual conception that non-rational beings could have. Ryle's conception of know-how has been famously criticized by Carr (1979) and more recently by Stanley and Williamson (2001). In short, the criticism is that 'know-how' expresses the same relation as 'know-that'. Addressing this criticism would only affect the wording of my argument. My argument does not depend on the terminology. For a critical discussion of Stanley and Williamson's argument and a defence of a concept of know-how, see Hornsby 2004. Her concern is with semantic know-how, but a parallel argument can be given for spatial know-how.

<sup>57</sup> Evans attributes this thought to Taylor (1964).

dispositions to act. I argued that the coordinates of perception are determined by our dispositions to act on perceived objects. In light of these considerations, we can see more clearly why allocentric frames of reference are not sufficient to meet the abstraction-condition. One can gain the spatial information that is structured in an allocentric frame of reference only because one understands that were one to occupy the location on which the allocentric frame of reference is centred, one's dispositions to act on the perceived object would change. If this is right, then the location on which the allocentric frame of reference is centred must be an alter-ego vantage point, that is, a location that one understands as a potential viewpoint.

A different way of articulating the same idea is that one must be able to create what could be called an intentional web that is recentred as one changes one's position in space. The intentional web is determined by the directions and distances one would move were one to come in contact with the objects around oneself. Peacocke expresses a similar thought when he says that perception involves perspectival sensitivity (1983, p. 67). On his view, dispositions to perform bodily movements change as one's spatial relations to perceived objects change. This is just to say that one's behaviour displays perspectival sensitivity insofar as it is spatially dependent on the particular perceptions one has. A creature that has the capacity to have what I call alter-ego points of view need not *actually* relocate. Nor does it need to know how precisely its dispositions to act would change would it occupy a different location. It must only be able to entertain the possibility of relocating and remapping its spatial orientation. So it must only be able to entertain the possibility of adapting its dispositions to perform bodily movements to potential changes of its location.

I have argued that perceiving the intrinsic spatial properties of objects requires that an object be perceived as perceivable from points of view other than the one that one happens to occupy. In order to perceive objects as perceivable from other points of view one must be able to move from egocentric to allocentric frames of reference. These allocentric frames of reference must be engaged insofar as one understands them as possible vantage points on the

perceived object. The alter-ego points of view are thus tied to egocentric frames of reference insofar as they involve remapping the dispositions to act in relation to a perceived object.

The spatial know-how thesis differs in two respects from the variation thesis on which the sensorimotor knowledge argument is based. The variation thesis states that perception of intrinsic spatial properties is dependent on knowledge of the different ways objects look given different viewpoints on the object. In contrast, the spatial know-how thesis does not require appeal to the *specific ways* objects look from points of view other than the one that one occupies. The requirement for perceiving intrinsic spatial properties is more flexible: perception requires only a practical understanding of space. Such a practical understanding of space involves knowledge of the possibility of other vantage points on the perceived object.

A second difference is that perception of objects is not made possible by conjoining different ways objects look to a unified whole. We perceive intrinsic spatial properties by perceiving objects as perceivable from different possible locations. According to Noë's variation thesis, subjects perceive intrinsic spatial properties in virtue of having knowledge of what objects look like from other locations. A subject needs at least two appearances of an object to have the sensorimotor knowledge necessary to perceive the intrinsic spatial properties of an object. There are two ways of gaining such sensorimotor knowledge. Either one has two encounters with the object from different perspectives in the very situation of perception or one has knowledge of what the object looks like from other perspectives based on past encounters with objects that exemplify the same shape-type. As Noë puts it for the case of perceiving a cube: 'As you move with respect to the cube, you learn how its aspect changes as you move—that is, you encounter its visual potential. To encounter its visual potential is thus to encounter its actual shape. When you experience an object as cubicle merely on the basis of its aspect, you do so because you bring to bear, in this experience, your sensorimotor knowledge of the relation between changes in cube aspects and movement. To experience the figure as a cube, on the basis of how it looks, is to understand *how* its look changes as you move' (2004, p. 77). In both

cases, it is only once one has unified the two appearances into the perception of an object that the relation to the object can be a perception of a cube.

According to the spatial know-how thesis, perception of intrinsic spatial properties does not depend on subjects having two encounters with an object (either past or present). Just one encounter is required. For this reason alone the spatial know-how thesis does not face the unification problem that arises for the variation thesis. While the variation thesis requires that we have two encounters with objects, the spatial know-how thesis requires only that the object is perceived as the kind of thing that is perceivable from other locations. Perceiving the intrinsic spatial properties of an object is integrated in the perspective-dependent aspect of perception.

### **3. The Self-Location Argument**

In the last section, I argued that perceiving intrinsic spatial properties requires perceiving objects as perceivable from locations other than the one that one happens to occupy. In this section, I will show that this idea presupposes that one represent one's location in relation to objects. The basic idea is that one represents one's location as the point of origin of one's perceptions and actions. More precisely, the idea is that one represents one's location as the location from which one both perceives objects and would act in relation to objects were one to act.

If we take seriously the idea that how things look from one's location is a relational property, then one's vantage point must play a role in perceptual content insofar as it forms the point of origin of an egocentric frame of reference.<sup>58</sup> Perceptual content is organized egocentrically, representing perceived objects as located in relation to oneself. But how can one's location—which is simply a fact about the world—play a role at the level of content? And why would perception alone or action alone not be sufficient to represent one's location?

---

<sup>58</sup> Peacocke (1999) can be read as defending this idea.

The answer to these questions leads back to the thesis that spatial know-how is determined by one's dispositions to act given the way one occupies one's location. One needs at least an understanding of what it would mean, say, to reach out to a glass in order to perceive it as within reach. Likewise, one needs an understanding of what it would mean to move one's body upwards in order to understand the spatial direction of up.<sup>59</sup> The frame of reference of action and perception changes as the spatial relations between oneself and the perceived objects change, and these changes allow one to represent one's location in relation to these objects. Through changes in perception brought about by changes in the spatial relations to objects one can triangulate back to one's location. If this is right, then perception alone or action alone cannot be sufficient to gain the self-location necessary for perception. These considerations bring out not only how self-location comes about, but also what is represented. One represents one's location as the vantage point of perception and the location from which changes in perception are registered that are brought about through changes in the spatial relations to perceived objects.<sup>60</sup>

The representation of one's location is immediate and non-relational. The suggestion is not that a subject consciously computes her position in space by reflecting on her spatial relation to objects. When a cat perceives a chair it might not see it *as* a chair, but it sees something that is located in a certain relation to itself and something onto which it can jump. Through perception it gauges the distance it must jump to land on the chair. Its location in relation to the chair must

---

<sup>59</sup> Baldwin (2003, p. 197) develops a similar idea when he argues that perceiving something as near is to perceive it as within easy reach.

<sup>60</sup> Brewer argues in a different vein that perception is dependent on action in virtue of perception's role in the *control* and *coordination* of spatial behaviour: 'the basic idea is that various perceptions are organized and integrated into a representation of the subject's spatial environment in virtue of their role in controlling his behaviour with respect to that environment in accordance with his purposes' (1992, p. 27). The idea I am suggesting brings in action at a more fundamental level. For reasons analogous to the ones articulated against the sensorimotor knowledge argument, I do not take it to be necessary that subjects control or coordinate their spatial behaviour through perception. The thesis that subjects control and coordinate their spatial behaviour through perception implies that token actions are necessary for perception. I argue towards the end of this section that it cannot be right that token actions are necessary for perception.

figure in its perception for it to be able to flex its muscles so as to land on the chair. I do not mean to assume anything about cat-perception. What is at issue does not depend on whether cats can perceive intrinsic spatial properties. The point is only to show that the representation of the perceiver's location is understood practically in a way that is not only unproblematic to ascribe to cats, but moreover necessary to ascribe to cats to explain what cats do.

What I mean by 'non-relational' can best be explained in terms of the standard distinction between direct and indirect representations. One represents one's location indirectly insofar as one only represents it by perceiving an object. By contrast, the representation of perceived objects is direct. Perceptual attention is focused on objects, not on one's location or one's mental state of perception. One does not take a third person attitude towards oneself, nor does one represent one's location by way of self-reflection or introspection. This is just to say that the thesis that one perceives objects in relation to one's location does not imply that one perceives objects to *one's* right or to *one's* left. It implies only that one perceives objects to the right or to the left. So the idea that one perceives objects in relation to one's location does not depend on being aware of oneself as standing in spatial relations to those objects. Nor does it require that one be aware of one's location. This is not to deny that there might be an intelligible notion of experiencing oneself perceiving. The point is simply that whether or not one experiences oneself as the point of origin of one's perceptions has no bearing on the present discussion. Campbell's distinction between monadic and relational spatial representations is helpful here (1994, p. 119). It shows how it can be that one represents objects as standing in egocentrically specified spatial relations without either awareness of one's location or awareness of oneself as standing in spatial relations to those objects. We can endorse the thesis that perception involves a relation between the perceiver and the perceived objects while

omitting one side of the relation.<sup>61</sup> If this is right, then representing one's location requires only what Campbell calls monadic spatial representations.

One might want to say that even though awareness of what it feels like to perceive is not what brings about the representation of one's location, it constitutes a form of self-awareness. While the awareness involved in attending to an object is transitive, the self-awareness that could arguably be said to be in play in perception is intransitive. It is intransitive since one is only aware of doing the perceiving insofar as one is perceiving an object.<sup>62</sup> The argument presented here does not, however, require that representing one's location is as cognitively rich as self-awareness. The thesis is that spatial perception depends on representing one's location, but not in a way that requires or amounts to self-awareness. The idea is rather that one represents one's location in a dual mode: the point of origin of perception presents itself as the point of origin for bodily movement. One occupies *one* position from which one *both* perceives and would act were one to act.

Now against the sensorimotor knowledge argument the objection was raised that it is not obvious that self-movement is required. The objection was, recall, that sensorimotor knowledge is not constituted by actual self-movements, but rather sensorimotor knowledge of how one's perceptions *would* change *were* the spatial relation between oneself and perceived objects to change. If it is only necessary that the spatial relations change, it is not clear why it would not be sufficient to be moved in relation to objects. Moreover, if all that is required is counterfactual

---

<sup>61</sup> Cassam expresses a similar idea when he writes that 'the fact that a creature lacks the conceptual resources to articulate its perceptions in first-person terms does not mean that they do not in fact represent things as standing in various spatial relations to it' (1997, p. 78). For an excellent discussion of relational properties that can appear as monadic properties, see Gupta 1999.

<sup>62</sup> This understanding of self-location is related to the role that Strawson gives to the self in perception: 'Since these synthesizing activities do not, after all, yield any kind of self-knowledge or self-awareness other than that which ordinary empirical self-consciousness supplies, it seems that we may have to look for the explanation of the possibility of self-ascription of experiences in the nature of the *outcome* of the synthesizing activities rather than in any special awareness of those activities themselves or of the powers exercised in performing them' (1966, p. 96). It is the act of perceiving an object that brings about the representation of one's location, not awareness of the activities themselves.



*knowledge* of the effects of movement on perception, then it is not clear why actual movement is required.

An objection could be raised on similar grounds against the self-location argument. I have argued that the *capacity* to act is necessary to meet the abstraction-condition. But it is not clear why one must ever actualize this capacity. Furthermore, surely the connections between perception and action are not so tight as to exclude the possibility that someone can perceive intrinsic spatial properties who is not capable of self-movement. If the action-dependency thesis amounts to the thesis that self-movements are necessary in every single event of perception, then it cannot be right. There is however a way of understanding the action-dependency thesis that does not amount to the thesis that perception depends on (past or present) token actions, while being stronger than the thesis that being moved in relation to objects is sufficient to perceive intrinsic spatial properties. To develop such a version of the action-dependency thesis it is necessary to take a closer look at the notion of action.

Action has played a role in both the spatial know-how argument and the self-location argument. Actual self-movement is, however, not necessary for the spatial know-how thesis. What is necessary is only knowledge that one's *dispositions* to act would change were one to occupy a different location in relation to a perceived object. In this section, I showed that the spatial know-how thesis presupposes the self-location thesis. Perceiving objects as perceivable from other locations requires representing one's location as the origin of action and perception. But the self-location argument concerns *capacities* to act. So it is not clear that actual self-movement can be shown to be necessary for the capacity to perceive intrinsic spatial properties. Indeed, the self-location argument should not require that actual self-movement is necessary. Certainly a subject who is temporarily unable to act can represent the location from which she perceives and from which she would act were she able to act. It cannot be necessary that one, say, actually reach out to an object that one perceives as within reach.

If this is right, then what we need is a notion of a capacity without requiring that this capacity be acted on. The Aristotelian distinction between first and second actuality of capacities is helpful here (*De Anima* II.5, 417a22-30). We can distinguish between an English speaker's innate capacity to speak a language, her capacity to speak English when she is sleeping (first actuality), and her capacity to speak English when she is talking English (second actuality). The distinction between first and second actuality is the distinction between the developed capacity to do something and the execution of this doing. In light of this distinction, we can say that representing one's location requires first actuality, but not second actuality of one's capacity to act. This implies that were one for whatever reason not able to move in a particular moment (and thus lack second actuality, but not first actuality of one's capacity to act), this would not challenge one's ability to perceive the intrinsic spatial properties of objects. The reason is that one's inability to move in any given moment does not affect one's capacity to know what it would mean to act in relation to perceived objects. One would just lack the ability to act on this knowledge. In this sense, representing one's location requires that one have first actuality, but not second actuality of one's capacity to act. First actuality is not itself an activity, but only a capacity to act. Therefore, Aristotle understands it as a kind of potentiality.

The notion of the first actuality of a capacity allows for a way to hold on to the action-dependency thesis without being committed to the implausible requirement that (past or present) token actions are necessary for perception. Although it cannot be necessary that one actually reach out to an object that one perceives as within reach, one must know what it would be to reach out to an object that one perceives as within reach. More generally, one must *know* what it would be to act in relation to a perceived object. Now, if representing one's location is a capacity that we must ascribe to cats to explain what cats do, then knowing what it means to act should not be understood in terms of propositional knowledge. Representing one's location

cannot be dependent on know-that, but must be dependent on a kind of know-how.<sup>63</sup> Take Ginet's (1975) much used example: as you open a door, no thought about where the door handle is crosses your mind, but you are not able to open the door unless you know where the handle is and know how to use it. By identifying knowledge of what it would be to act in relation to a perceived object as know-how, we can recognize that it is knowledge that does not require linguistic abilities.

Insofar as such knowledge does not require linguistic abilities it differs from the practical knowledge that Anscombe (1957) is concerned with. The practical knowledge that she is concerned with is knowledge of what one is doing. This is knowledge that one can be wrong about. One can intend to do *x*, but do *y*. Similarly, one can think one is doing *x*, although one is doing *y*. Knowing what one is doing is a *know-that* which applies to actions. In contrast to knowledge of *what* one is doing, the capacity to act is knowledge of *what it would be* to do something. Knowledge of what it would be to do something is not knowledge that a subject can be right or wrong about. In this respect, it is similar to knowledge of how to do something.

Knowledge of how to do something, however, pertains to determinate actions, such as acquired skills and basic bodily movements. Some capacities to perform a determinate form of action are acquired skills; say the capacity to play the cello. Other capacities to perform a determinate action are arguably not acquired skills; say the capacity to lift one's arm.<sup>64</sup> The capacity to act is distinct from the capacity to perform a particular kind of action. It is a capacity that is necessary to acquire skills, but it is not itself a capacity to perform a particular kind of action. It is the capacity to act, whatever the activity might be. This is a capacity that one has in

---

<sup>63</sup> For a discussion of the concept of know-how, see footnote 18.

<sup>64</sup> One might argue that all actions are by definition acquired skills—even simple actions, such as lifting one's arm. But even on such a view, one can distinguish between the capacity to perform a determinate action and the capacity to act, whatever that action may be. For a discussion of the distinction between acquired skills and capacities that are not acquired, see Broadie 1987.

virtue of being the kind of creature who is an agent.<sup>65</sup> Now Ryle introduces the term ‘know-how’ in a discussion that is concerned with knowledge that is acquired. But although he emphasizes the perfectibility and acquirability of know-how, his account does not rule out know-how that is not acquired. The capacity to act is a kind of know-how, but *not* one that is acquired. It is knowledge one has insofar as one is an agent. In contrast to an acquired skill, knowing what it would be to act is not something that one gets better at. So although one can acquire skills only insofar as one is the kind of being who has the capacity to act, the capacity to act is not itself an acquired skill.<sup>66</sup>

With this notion in hand, we can cut a path between two unattractive routes: one is that perception is dependent on past or present token actions; the other is that being moved in relation to objects is sufficient to perceive their intrinsic spatial properties. As I argued, it cannot be right that token actions are necessary for perception. But the alternative is not that being moved in relation to objects is sufficient for perception of spatial properties. Nor is the alternative that no movement is required. I am taking a middle route, one that involves the capacity to act. The action that figures in perception is not actual self-activated movement, but rather potential self-activated movement. This capacity to act is a kind of know-how, more precisely it is knowledge of what it would be to act. As the Aristotelian distinction between first and second actuality of capacities allows us to see, this is knowledge that one can have even if one is not able to act on one’s capacity.

---

<sup>65</sup> For a discussion of having capacities in virtue of being a certain kind of creature, see Thompson 2004.

<sup>66</sup> My argument does not appeal to embodied intentionality, but it is compatible with the thesis that perceivers are necessarily embodied. For discussions of such accounts, see Taylor 1989, Noë 2004, Baldwin 2004, and Kelly 2004. Arguably only embodied beings can have the capacity to act. But even if this is right, it would only be a consequence of my argument that perceivers are embodied. My argument does not itself depend on it. Similarly, the argument for the spatial know-how thesis implies but does not depend on perceivers being embodied. What is crucial for determining the axes of the egocentric frame of reference is not the perceiver’s body, but rather the *location* from which possible movements in relation to the perceived object originate and the *directions* of the relevant movements. For purposes of determining the coordinates of perception, subjects need not be conceived of as embodied. They can be understood simply as occupying a geometrical location.

By taking this middle route, it is possible to circumvent the sentient statue objection while denying that past or present token actions are necessary for perception. In this respect, the action-dependency thesis I have defended differs from both the modest and the radical version of the sensorimotor knowledge thesis. According to the modest version, recall, all that is required for perception is knowledge of how appearances of objects would change were the spatial relations between oneself and objects to change. If all that is required is knowledge of the effects of movement on perception, being moved in relation to objects would be sufficient for perception. In contrast to such a view, I argue that the capacity to act is necessary for the perception of intrinsic spatial properties.

According to the radical version, past or present token actions are necessary for perception, since ‘only through *self*-movement can one *test* and so *learn* the relevant patterns of sensorimotor dependence’ (Noë 2004, p. 13). On this version of the argument, the sensorimotor knowledge that is said to be necessary for perception can only be gained through actual self-movement. As I have argued, it cannot be right that we learn to perceive specific shape-types. We are able to perceive the intrinsic spatial properties of objects without any knowledge of how objects (exemplifying the relevant shape-type) look from other perspectives. In contrast to the radical version, the action-dependency thesis that I have defended does not imply that token actions are necessary for perception. The requirement is only that perceivers have the capacity to act.

This idea is in one respect more modest and in another respect more robust than the sensorimotor knowledge thesis. It is more modest insofar as it implies no commitment to perception being dependent on token actions. It is more robust insofar as the thesis is not simply that self-movement is necessary for perception. I have argued that the *capacity to act* is necessary to perceive the intrinsic spatial properties of objects. Knowledge of what it would be to act distinguishes organisms that have the capacity to act from organisms that prompt or

induce movement without having the capacity to act.<sup>67</sup> Plants change and move, but they do not have knowledge of what it would be to act. This brings us back to the opening thesis that only agents are perceivers. Insofar as perception is dependent on the capacity to act, it is not a coincidence that only agents are perceivers.

#### **4. Conclusion**

Perception is organized egocentrically insofar as objects are perceived from a point of view. As a consequence, only situation-dependent properties are immediately perceptually available. But despite the perspectival structure of perception, one can perceive the intrinsic spatial properties of objects. The aim of this chapter is to contribute to an epistemological explanation of how this can be. In the first step of my argument, I showed that a practical understanding of space is necessary to perceive intrinsic spatial properties. I spelled out this thesis by arguing that perceiving intrinsic spatial properties requires perceiving objects as perceivable from locations other than the one that one happens to occupy. Perceiving objects as perceivable from other locations in turn requires moving from egocentric to allocentric frames of reference. I argued that these allocentric frames of reference must be engaged insofar as one understands them as different possible vantage points on the perceived object.

In the second step of my argument, I showed that perceiving objects as perceivable from different locations requires representing one's location in relation to objects. The reason is that only by representing one's location can one abstract from the particular vantage point one happens to have and perceive the perspective-independent intrinsic spatial properties. I argued that one represents one's location in relation to objects as the origin of action and perception. More precisely the thesis is that one represents one's location as the location from which one

---

<sup>67</sup> The notion of induced movement should be understood in analogy to the notion of self-movement. The notion of induced movement allows for a description of the movement of, say, sunflowers, while avoiding the implication that plants have a 'self'.

both perceives objects and would act in relation to objects were one to act. I spelled out this thesis by arguing that perception is dependent on the capacity to act. I identify this capacity as a kind of know-how, namely knowledge of what it would be to act.

So I have shown that although perception is essentially perspectival insofar as one is visually confronted with objects in an egocentric frame of reference, the possibility for action that is involved in the egocentric organization of perception allows one to represent one's location in relation to perceived objects. The possibility of action allows one to go beyond the egocentric frame of reference and to perceive the intrinsic spatial properties of objects. So paradoxically, it is the egocentricity of perception that allows one to transcend one's egocentric frame of reference.

### III. SELLARSIAN PERSPECTIVES ON PERCEPTION AND NON-CONCEPTUAL CONTENT\*

I argue that a Sellarsian approach to experience allows one to take seriously the thought that there is something given to us in perception without denying that we can only be conscious of conceptually structured content. I argue against the traditional empiricist reading of Sellars, according to which sensations are understood as *epistemically* graspable prior to concrete propositional representations, by showing that it is unclear on such a view why sensations are not just the given as Sellars so famously criticizes it. I suggest an alternative transcendental reading, according to which there are two sides to the subject matter of perceptual judgments: The matter given in perception (sensation), and its form (intuition). I present an account of sensations and intuitions on which it is unproblematic to see sensations as what is given in perception: They are not intelligible independently of their role as the matter of intuitions, the content of which is accessible to us only in the context of a judgment.

I reject the distinction between conceptual and non-conceptual representations as a helpful tool in discussing the nature of perceptual content and argue that the crucial distinctions are rather between the form and matter of the sensible conditions of perception and between the singularity and generality of perceptual judgments: While intuitions account for the singularity of perceptual judgments, the concepts in play account for their generality.

It seems plausible that something is given to us in perception that is the basis for the judgments we form about objects in view. And it is tempting to say that what is given in perception has content in some way without being conceptual. It seems plausible, on the other hand, that only conceptually structured content is accessible to us. Approaches that assume perception to be providing us with (non-conceptual) content, which cannot be expressed in a judgment, play down or circumvent the second of these two suppositions. In contrast, many approaches that

---

\* This chapter has gone through several stages and I am indebted to many people for help. I thank Robert Brandom, Joseph Camp, Philip Catton, Rick Grush, Henry Pickford, Kevin Scharp, and Lionel Shapiro for helpful comments on an early draft of this chapter and Willem deVries, Kieran Setiya, and Wayne Wu as well as audiences of meetings of the Joint Session of the Aristotelian Society and Mind Association in Belfast, the American Philosophical Association in Washington, the Gesellschaft für analytische Philosophie in Bielefeld, and the Canadian Philosophical Association in Halifax (all in 2003) for comments on a later version. I benefited a great deal from Stephen Engstrom, Helen Steward, and Timothy Williamson's detailed comments on the most recent version. Finally, I am indebted to Matt Boyle, Anil Gupta, and John McDowell for invigorating discussions and help on multiple drafts of this chapter.



assume perception to be concept-dependent drop the first supposition, arguing that our perception of objects must be conceptual from the outset.

Sellars is normally taken to be a radical supporter of the thesis that our perception does not involve a given.<sup>68</sup> I will argue, however, that a Sellarsian approach to perception allows one to take seriously the idea that perception is concept-dependent without denying that something is given to us in perception. My argument proceeds in two steps.

First, I argue that the concepts that we employ in perceptual judgments are related to objects in that they involve rules of application specifying the circumstances under which it is correct to use a word and the practical consequences of its use. But taking application rules into account is, I will argue, not sufficient to explain what is involved in directing a thought at this rather than that particular object in perception. In a second step, I address this more specific question. I show that we can consider ourselves to be referring to objects, not by setting up atomistic semantical relations between expressions and objects, but by picking out particular objects in the context of a full-blown language. I argue for this second point by distinguishing two possible readings of Sellars's interpretation of sensations (*sinnliche Eindrücke*) and Kantian intuitions (*Anschauungen*). On what could be called an empiricist reading, sensations are understood as the input on the basis of which we form basic conceptual representations, namely intuitions, and full-blown propositional representations. I argue that it is unclear on such a reading why sensations and intuitions are not the given as Sellars so famously criticizes it.

This understanding of the sensible conditions of perception will be contrasted with what could be called a transcendental understanding of sensations and intuitions. On such a reading, intuitions and sensations are what we must assume figure in our perception if we think of our perception as having a subject matter. On Kant's picture, there are two sides to the sensible conditions without which we cannot think of ourselves as having perception of objective reality:

---

<sup>68</sup> See most recently William Alston (2002).

The matter given in perception (sensation) and its form (intuition). While intuitions are not graspable independently of being subsumed under concepts in the context of a judgment, sensations are not graspable independently of being formed into empirical intuitions. Although sensations can be seen as what is given in perception, they are intelligible only as the matter of intuitions, the content of which is intelligible only in the context of a judgment.

The question of what it means to have perceptions of this rather than that particular object is approached by thinking through Kant's understanding of intuitions and sensations because, I believe, we have much to learn from his insights in these matters. I see Kant as discussing the materials necessary for the construction of a framework that leaves room for the suppositions motivating theories that assume the possibility of non-conceptual content, without thereby falling prey to a crude empiricist account of perception.<sup>69</sup> Thinking through Sellarsian and Kantian approaches to perception will serve as a springboard to bring out a way of making sense of the idea that something is given in perception that is not as yet conceptually structured. In this sense, this chapter meshes historical and systematic interests.

For Kant the fundamental nature of empirical judgments is their dependence on receptive intuitions. This dependence on intuitions is an insight shared with the empiricist tradition. But in contrast to philosophers standing in that tradition, Kant sees the intelligibility of empirical intuitions as necessarily relying on a conceptual framework. Intuitions provide direct links to objects, but these links are not atomistic content-generating links, since we can only grasp the content of intuitions in the context of a judgment. Discussing these issues quickly leads to the question of how the relation between intuitions and demonstratives should be understood. In a third part, I will address this question by discussing Sellars's interpretation of intuitions as having the form "that cube". Again I will distinguish two possible readings of such a view. I

---

<sup>69</sup> The term "non-conceptual content" is used rather differently in different accounts of perception. Throughout this chapter, it will be understood as content that is accessible to the perceiving subject without bringing any conceptual capacities into play.

argue that intuitions must not be understood as a separable contribution to perceptual judgments, but as providing for the possibility of such judgments.

## 1. Functional Roles and Rules of Application

The question of what it means to direct one's thought at a particular object has a semantical as well as an epistemological dimension. From a semantical perspective, the question is how the content of our thoughts determines what the thoughts are about. From an epistemological perspective, the question takes the form of how our thoughts are affected and guided by the objects that they are about. Sellars approaches the problem of perceptual content from both angles. He criticizes ambitions to ground the contents of our expressions by way of atomistic content-generating links to objects and develops his positive account by arguing that the contents of our expressions must be understood in terms of the functional roles of these expressions. This view leads him to maintain that there are no direct semantical relations between words and objects and, thus, to a radical non-relational semantics. The same thoughts take an epistemological twist when he argues against the possibility that sense data are given to us in perception as something that we know solely by acquaintance.

The main difficulties with Sellars's account are all connected to the question of how expressions can be seen as referring to particular objects in perception.<sup>70</sup> To bring out the nature of the problem it will be necessary to lay out the basic semantical ideas that motivate Sellars's account of perception. In "Being and Being Known", Sellars argues that conceptual episodes "differ intrinsically *qua* acts in a way which systematically corresponds to what they are about, i.e. their subject-matter" (1960, p. 43). He insists, however, that this is not meant to imply that there are semantical relations between the conceptual and the real orders. He contends that our

---

<sup>70</sup> I thank Lionel Shapiro for long discussions that helped me see more clearly how to think about the questions addressed in this section.

thoughts can stand in semantical relations only to elements in the conceptual order and argues in *Science and Metaphysics* that this “non-relational character of ‘meaning’ and ‘aboutness’” is the “key to a correct understanding of the place of mind in nature” (1967a, p. ix).

What does it mean to say that there are no semantical relations involved in perception? On what one could call a strict non-relational view, perception does not represent particular objects at all. Such a view is motivated by the idea that the perception of two indistinguishable objects is exactly the same. Martin Davies, for example, argues that if two objects are perceptually indistinguishable for a subject, then the perception of one has the very same content as the perception of the other (1997, p. 314).

Such a strict non-relational view is counterintuitive: If the content of the perceptions of two indistinguishable objects is the same, neither perception seems to represent the particular object in view. Of course, it need not follow from such a view that perception does not represent the world. On Davies’s account “[o]ne way to see how perceptual content can be truth conditional, although not object-involving, is to take perceptual content to be existentially quantified content” (1997, p. 314). This is just to say that two perceivers visually confronted with two distinct, but indistinguishable pens on a table represent that there is an object of a particular type lying on an object of another particular type. But this still leaves the question of how we can think of ourselves as perceiving this rather than that object: When a person perceives a pen, she *knows* which pen she is looking at, namely the one in view. As P.F. Strawson argues convincingly in his discussion of the possibility of massive reduplication in the first chapter of his *Individuals* (1959), knowledge about mind-independent objects depends upon perceptual representations of particular objects in the world. Such knowledge is not accounted for on the strict non-relational view: Perception only provides a perceiver with knowledge that there is a pen of a certain type lying on a table of a certain type.

One possible way to account for our ability to perceptually refer to this rather than that particular object is to acknowledge that demonstrative elements figure in the content of

perception. By involving the reference of a demonstrative element that is fixed by the context of the perception in which it occurs, one can take into account that one and the same demonstrative element refers to different particular objects in different contexts. In contrast to the strict non-relational view, such a non-relational view involving demonstratives finds a place for the representation of particular objects in perceptual content.<sup>71</sup>

Sellars acknowledges that more needs to be in play than the functional roles that constitute conceptual content to account for the justificatory force of perceptual judgments and thus rejects a strict non-relational view.<sup>72</sup> The question is what more needs to be in play on a Sellarsian view and whether it suffices to account for how it is that we can refer to particular objects in perception while denying any semantical relations between words and objects.

On Sellars's view, there is an isomorphism between the conceptual and the real orders, without which knowledge of the physical world would be impossible. How can such an isomorphism come about if it does not involve semantical relations between the conceptual and the real orders? To give the same question a Kantian twist: how is it guaranteed that the conceptual order is not arbitrary and haphazard, but in some way constrained by the objects our thoughts are about?

The clearest account of how Sellars understands the isomorphism between the two orders can be found in *Science and Metaphysics*. He argues there that "expressions are involved in semantical uniformities (actual or potential) with the appropriate extra-linguistic items" (1967a, p. 82). He is quick to add, however, that this does not suggest that such semantical uniformities involve relations between conceptual and non-conceptual items, arguing that there is a relation *within* the conceptual order holding between words and functional roles, which he refers to as a

---

<sup>71</sup> Tyler Burge (1991) can be seen as having a version of such a view. As John Campbell (2002) has pointed out, the question of course arises how the demonstrative element can provide the perceiving subject with knowledge of what the demonstrative term refers to. I will address this question in the next section.

<sup>72</sup> See for instance Sellars (1956), § 32.

relation of *signification*.<sup>73</sup> Similarly, there is a relation in the real order between sign-designs and objects, which he refers to as a relation of *picturing*. Picturing-relations map configurations of words onto configurations of natural objects, where the link between the word and the object is understood to be a causal one. Picturing relations are purely behavioristic relations. Although Sellars does not understand them as semantic they are coextensive with what we would expect to be a semantical relation.

Sellars is led to such a non-relational semantics through his account of meaning-statements. In order to accommodate the different roles played in meaning-statements of the form

(1) 'dreieckig' in German means 'triangular',

one can distinguish shape-focused and meaning-focused quotations. While \*dreieckig\* picks out a sign-design, •triangular• picks out a certain conceptual role played by, for example, \*dreieckig\*. The words \*dreieckig\* and \*triangular\* are •triangular•s, which is simply to say that \*dreieckig\* plays the same functional role in German as \*triangular\* plays in English. While '\*dreieckig\*' refers to tokens of the sign-design \*dreieckig\* without depending on an abstract entity, the shape, '•triangular•' refers to the functional role •triangular• without depending on an abstract entity, which one might want to call the 'meaning' of the expression. The crucial point is that all we need to interpret (1) is a notion of two expressions having the *same* sign-design and a notion of two expressions having the *same* functional role. There is no third thing to which either of the two expressions flanking the semantic term 'means' refer that accounts for the fact that \*dreieckig\* and \*triangular\* have the same functional role. Thus, (1) is not a relational predication. By reformulating (1) as

(2) \*dreieckig\*s in German are •triangular•s.

or alternatively

---

<sup>73</sup> It is misleading to be speaking of signification-relations, since Sellars insists that they are not relations at all, but just classifications.

(2') A \*dreieckig\* in German is a •triangular•.

the sentence can be recognized more clearly as a sortal predication (or classification). The sortal '•triangular•' classifies expressions that have the same functional role. Accordingly, the semantic verb 'means' in the earlier sentence no longer appears as denoting a semantical relation, but rather as expressing a functional classification.<sup>74</sup> Sellars argues that if his reconstruction of meaning-statements is correct, then "it follows at once that semantical statements of the Tarski-Carnap variety do not assert relations between linguistic and extra-linguistic items" (1967a, p. 82). If meaning-statements express functional classifications rather than semantical relations between words and objects, the difference between expressions must, on Sellars's view, be seen as a difference in their semantic roles, not as a difference in what they refer to, be it an abstract object or an object in the real order.<sup>75</sup>

So, semantical relations holding between the conceptual and the real orders are avoided by splitting the assumed word-object relations into signifying relations on the one hand and picturing relations on the other. While the sentence

Tokens of the word \*dreieckig\* *picture* triangles,

means that the word \*dreieckig\* represents a triangle, the sentence

Tokens of the word \*dreieckig\* *signify* •triangular•,

means that the word \*dreieckig\* is functionally classified as a •triangle•. This just is to say that there is a language-language relation of signification and a world-world relation of picturing, but no semantical relation holding between the conceptual and the real orders. What connect the

---

<sup>74</sup> In his very early papers (see for example Sellars (1950)), Sellars makes a slightly different distinction between sign-designs and functional roles, arguing that the pragmatic quotes (star quotes) specify token classes of sign-designs, while the syntactical quotes specify functions in a language. Token classes are taken to be kinds of visual or auditory patterns that embody conceptual functions in historical languages. Thus \*dreieckig\* and \*triangular\* are two token-classes of the metalinguistic function that the relevant sign-design plays.

<sup>75</sup> For the most elaborate presentations of this argument see Sellars (1963a) and (1983).

picturing-relation with the signification-relation are only the words that play a role in both relations.

The question arises as to how much philosophical weight the picturing relations can carry. According to Sellars, picturing relations guarantee that the structure of configurations of objects is preserved in our language by establishing referential relations between words and objects. Picturing relations constitute the isomorphism between the picturing language and the pictured world through a causal link between words and objects. He does not, however, want such causal relations to figure as content-generating links. What leads Sellars to his strong non-relational claims is his view that sentences of the form “a \*cat\* in English is a ●cat●” do not involve any *direct* atomistic content-generating relations between \*cat\*s and cats. Avoiding such atomistic relations, however, does not conflict with seeing concepts as involving semantical relations insofar as they are related to objects through the rules of application that specify the circumstances under which it is correct to use the relevant word and the practical consequences of its use. Such a view does not imply that functional roles depend on atomistic content-generating links, since the rules governing a word’s application are only intelligible in the context of semantical relations within the conceptual order and thus only graspable by someone who is already a proficient speaker of a language. The suggestion is that the functional role in virtue of which a \*cat\* is a ●cat● is embedded in the real order because it involves rules governing the application of the word \*cat\*. What makes the sentence “a \*cat\* in English is a ●cat●” true is that \*cat\*s have the role played by \*cat\* in an English speaker’s language.

It seems that taking such application rules into account involves taking relations between words and objects into account. But Sellars denies that. There are at least two ways in which Sellars might respond to the suggestion that acknowledging the importance of application rules involves acknowledging semantical relations between language and objective reality. He might argue that although the sentence “a \*cat\* in English is a ●cat●” cannot be true unless \*cat\*s



refer to actual cats, the sentence itself does not *express* such a hook-up. The sentence merely *depends* on picturing relations between the conceptual and the real order, which are what bring about application rules. In this sense, the rules governing \*cat\* include not only inference rules but also application rules. Such an argument, however, amounts to introducing a rigid distinction between the necessary conditions for the truth of a sentence and its content. It is arguable whether it makes sense to say that the necessary conditions for the truth of a sentence are not themselves expressed by the sentence.

The closest Sellars gets to acknowledging semantical relations is in his discussion of semantical uniformities:

[I]n the case of expressions which stand for senses which are intensions, it will also be true (and necessarily so) that these expressions are involved in semantical uniformities (actual or potential) with the appropriate extra-linguistic items. Thus in order for it to be true that ...

‘Dreieckig’s (in German) are •triangular•s

German ‘Dreieckig’s must participate in uniformities with triangular things, uniformities which parallel those involving our word ‘triangular.’ But this does not mean that these statements themselves have the form

(Linguistic item) R (non-linguistic item)

(1967a, p. 82; similarly pp. 111f).

But even semantical uniformities can be understood without appeal to semantical relations between words and objects, if they are understood as picturing relations, that is, as relations between a word, say \*cat\*, considered as an object in the real order, and other objects in the real order, namely actual cats.<sup>76</sup> In this sense, even the quoted passage can be read as expressing Sellars’s official line of thought, according to which an account of the content of our thoughts need not be made to depend on semantical relations between words and objects.<sup>77</sup>

---

<sup>76</sup> See in particular Sellars (1967a), p. 86.

<sup>77</sup> See also Sellars (1967a), p. 112: “If we know, for example, that Sage’s (in F) are •wise•s

we know, by virtue of our knowledge of what ‘wise’s do in our language, that the French word ‘sage’ must occur in uniformities involving both tokens of ‘sage’ and extra-linguistic objects. But the uniformities do not consist of tokens of ‘sage’ standing for wisdom, but are rather to be characterized as complex uniformities involving many configurations of many French words and forms of behaviour, on the one hand, and, not wisdom, but wise people, on the other.”

This argument, however, relies on uniformities already being established in our language. Nothing has been said about what brings about these uniformities in the first place. Sellars's idea is that the uniformity of our linguistic behavior establishes picturing relations between words and objects and thereby secures that our language preserves the structure of the real order. The crucial point of Sellars's argument is that the picturing relations are only linked to the signification relations in that our expressions play a role in both relations. This allows him to write that "the causal aspect of perceptual takings ... accounts for the selecting of *one* world story *rather than another* and connects the 'is' of this selecting with the rule-governed or 'ought to be' character of the language" (1979, p. 110).

An obvious line on which to criticize Sellars would be to argue that his account of picturing depends on linguistic objects *correctly* picturing non-linguistic objects. This would involve regarding the links they bring about from a normative semantical point of view and not just as elements in the natural order. Sellars might argue that to say that a linguistic object correctly pictures a nonlinguistic object is not a normative matter, although normative language is used: corresponding to every espoused principle of correctness there is a matter-of-factual uniformity in performance which link words with the objects they picture.<sup>78</sup>

As Sellars argues in "Truth and Correspondence" the uniformity of our behavior is only brought about *because* our language use is rule-governed in the first place and thus only reflects the fact that our linguistic actions are rule-governed.<sup>79</sup> Since picturing relations are established because of the uniformity of our linguistic behavior, such a view suggests that picturing relations depend on our language use being rule-governed. If this is correct, then picturing relations depend on conceptual capacities. And if an expression pictures an object only because it is embedded in a complex framework of semantical relations, then picturing relations can secure that our language preserves the structure of what it is about only by presupposing

---

<sup>78</sup> Compare Sellars (1962a), p. 222.

<sup>79</sup> See Sellars (1962b).

conceptual capacities. Thus on Sellars's view, conceptual capacities are not only dependent on picturing relations, our capacity to entertain picturing relations is in turn dependent on our conceptual capacities.

Acknowledging such a mutual dependency between the two capacities fits smoothly with Sellars's "psychological nominalism". As Sellars elaborates in the so-called Myth of Jones in "Empiricism and the Philosophy of Mind," thoughts should be understood on the model of linguistic acts. We acquire conceptual capacities by acquiring linguistic competence.<sup>80</sup> Furthermore, all exercises of conceptual capacities are a linguistic affair. What the Myth of Jones aims to show is that the idea of inner episodes is unproblematic, since we can model it on overt speech. Thus, operations of conceptual capacities are not limited to overt uses of language, although overt speech might be considered as the primary use of conceptual capacities. In this sense, Sellars understands language not as the expression, but as the medium of our thoughts.<sup>81</sup>

Sellars is aware that this position involves the danger of equating words with concepts. What is crucial is "the denial that there is any awareness of logical space prior to, or independent of, the acquisition of a language" (1956, § 31). Everything that is philosophically significant about our capacities to have thoughts is, in other words, mirrored in what is significant in our capacity to be competent speakers of a language.

So far I have argued that functional roles, such as ●cat●, involve not only inference rules but also application rules for \*cat\*. Saying that \*Katze\* is a ●cat● does not only imply that it plays the same role in German that \*cat\* plays in English: it is also to say that a person who knows that \*Katze\* is a ●cat● knows what objects it refers to, namely cats. I have argued that even if one accepts that concepts involve application rules, Sellars's account of conceptual roles is successful as relying solely on signification relations and picturing relations and thus not

---

<sup>80</sup> Compare Sellars (1956), § 58: "the ability to have thoughts is acquired in the process of acquiring overt speech ... only after overt speech is well established, can "inner speech" occur without its overt culmination."

<sup>81</sup> See for example Sellars (1979), p. 74.

involving semantical relations between words and objects. Sellars's non-atomistic semantics is, therefore, compatible with the idea that the functional roles determining the use of words are related to objective reality through application rules. But this still leaves open the question of how particular objects figure in the content of perception. I will address this more specific question in the next section.

## 2. Relating Thoughts to Objects

According to Sellars, the most striking change between Kant's approach and that of his predecessors is his insistence "that the class of contents should be expanded to include individual contents, e.g., the content of an intuitive representing of *this-cube*,<sup>82</sup> or the content *Socrates*, which, though an individual content, is not the content of an intuitive representing" (1967a, p. 60). It is not obvious how in the framework of Sellars's conceptual role semantics we can think of ourselves as accommodating this Kantian insight and picking out particular objects in perception. More needs to be in play than the rules of application governing our use of expressions to understand what it means for a person to direct a thought towards this rather than that particular object. Addressing this question will bring together Sellars's account of functional roles with his account of perception.<sup>83</sup>

---

<sup>82</sup> "This-cube" refers to an intuitive representation. Since these representations are not straightforwardly conceptual, it would be wrong to put 'this-cube' in dot-quotes. This should not be read as implying that they are non-conceptual representations, whatever that would be.

<sup>83</sup> In contrast to Sellars, Brandom (1994, in particular, pp. 199-229) deals with the problem of singular thought in his version of a conceptual role semantics without appealing to any conception of experience. The empirical content of our perceptual judgments is explained by arguing that our responsive dispositions allow us to react to our environment in a reliable and differential manner. On Brandom's view, reliable differential responsive dispositions allow us to make observation reports. Since observation reports are brought about by our dispositions, rather than being derived from inferences, they present us with non-inferential knowledge. Their content, however, is determined by their inferential role. Furthermore, for an observation report to be counted as knowledge the reporter must endorse the claim contained in the report. By taking these two additional requirements into account, Brandom argues that our reliable differential responsive dispositions are a necessary but not a sufficient condition for observational knowledge and, thus, distances himself from the kind of reliabilist approach taken, among others, by Goldman (1976 and 1986). By arguing that the reliability of our differential responsive

It will be helpful to look at some elements of Sellars's reading of Kant to get a clearer view of the issue in question. There are two possible readings of Sellars on Kant that give a very different place to the role of sensations and intuitions in perception. I will argue against what I will call an empiricist reading of the sensible conditions of perception and embrace what I will call a transcendental reading.

In *Science and Metaphysics*, Sellars reads Kant as allowing solely for semantical relations between conceptual episodes, and consequently takes Kant to be struggling with the problem of how our thoughts are guided by the objects they are about, ensuring that our conceptual order is not arbitrary or haphazard. The following passage brings out the elements of Sellars's reading of Kant with which I will be concerned:

[W]hen [Kant] speaks of the productive imagination as 'taking up' (A 120) the manifold of outer sense into its activity ... the metaphor implies ... that the manifold is an independent factor which has a strong voice in the outcome. On the other hand, it is only if the manifold is mistakenly construed as belonging to the conceptual order that it makes sense to suppose that it, so to speak, bodily or literally becomes a part of the resulting intuitive representation. If it is, as I take it to be, non-conceptual, it can only guide 'from without' the unique conceptual activity which is representing of this-such as subjects of perceptual judgment (1967a , p. 16).

Sellars's guiding question in the first chapter of *Science and Metaphysics* is how perceptions of objects can yield knowledge. He explains how our thoughts are directed at objects by appealing to sense impressions, that is, mental states that are not shaped by the understanding. What seems clear is that perception of objective reality must involve representations that are brought about in a passive manner by having objects in view. The problem is that if these representations are considered to be conceptually formed, it is unclear how they can be thought of as constraining our conceptual framework. If, on the other hand, they are considered to be non-conceptual representations, it is not clear how they can guide at all. Such a view seems to imply that they (causally) determine our responses and determining a response is not the same thing as guiding

---

dispositions is not assessed by the perceiving subject, but rather in an intersubjective context, Brandom deals with skeptical worries that Sellars's account faces. The question remains whether such an account can explain how we can direct our thought at this rather than that particular object in perception, but it would lead too far afield to discuss this question here.

a response. Sellars presents Kant as saying that sensibility guides the conceptual realm by “sheer receptivity”, thereby yielding non-conceptual sense impressions. Since Sellars argues that there cannot be direct semantical relations between words and objects, he turns to “purely passive representations of receptivity” as what constrains the conceptual activity.<sup>84</sup>

On what one could call an empiricist understanding of the sensible conditions of perception, “sheer receptivity” brings about representations that are not as yet conceptually shaped on the basis of which we form conceptual representations. This view can be found in Sellars when he complains that Kant has two notions of intuition between which he fails to distinguish clearly. According to Sellars, one notion accounts for the non-conceptual impact that guides our representations “from without,” while the other accounts for the role of perception in understanding. He writes

[I]t is clear that Kant applies the term ‘intuition’ to both the representations which are formed by the synthesizing activity of the productive imagination and the purely passive representations of receptivity which are the ‘matter’ (A86/B108) which the productive imagination takes into account (1967a, p. 7).<sup>85</sup>

Sometimes, Sellars refers to the former as intuitions and to the latter as sense or sense impressions, distinguishing the “guidedness of intuition” from the “receptivity of sense.” In other passages, he speaks of “the conceptual character of the synthesis of apprehension in

---

<sup>84</sup> I profited from McDowell’s Woodbridge Lectures while thinking through this part of Sellars’s writing. I am not concerned here with the question of the immediacy of the presentness of objects to the intuitionally structured consciousness, which is central for McDowell’s criticism of Sellars’s reading of Kant. McDowell spells out a transcendental role for sensibility in terms of the immediate presence of objects to the conceptually shaped sensory consciousness of thinkers. On this reading, thoughts are about things in the real order because objects are immediately present to conceptual consciousness in intuition. By suggesting a relational understanding of intentionality, he can argue that “nonsheer receptivity is operative in intuition” and thereby undermine the threat of idealism with which Sellars’s project is confronted. McDowell goes along with Sellars insofar as he argues that conceptual episodes differ intrinsically. But by taking the immediacy of intuitional representations into account, he takes a different approach from Sellars, arguing that conceptual episodes differ intrinsically, not in a way that systematically corresponds to what they are about, but because the difference in what they are directed towards is itself an intrinsic difference in conceptual episodes.

<sup>85</sup> Shortly before this passage Sellars writes: “Kant’s use of the term ‘intuition,’ in connection with human knowledge, blurs the distinction between a special sub-class of conceptual representations of individuals which, though in some sense a function of receptivity, belong to a framework which is in no sense prior to but essentially includes general concepts, and a radically different kind of representation of an individual which belongs to sheer receptivity and is in no sense conceptual.”

intuition” and “the radically non-conceptual character of sense” (1967a, p. 16). For reasons that will become clear in due time, I will refer to the former as *intuitions* and to the latter as *sensations*.

I will argue that Kant’s notion of intuition in no way conflates two different kinds of representations. Granted, Kant opens the *Critique of Pure Reason* by distinguishing two different sources of knowledge—understanding and sensibility—and then speaks of concepts and intuitions as corresponding to these two sources of knowledge, thereby suggesting that intuitions are non-conceptual. But this reading becomes unintelligible in light of Kant’s argument in the *Transcendental Analytic*. Kant there shows how the picture drawn in the *Aesthetic* is too simplistic, arguing that intuitions can only be grasped in the context of a judgment and thus cannot be understood as non-conceptual representations. The simplistic dualistic picture with which Kant opens the first *Critique* can be seen as a rhetorical move that allows him to gain the sympathy of his contemporary readers. Kant does, however, have a notion of sensations, which on the reading of Sellars I aim to defend can be seen as corresponding to what Sellars means when he speaks of sense impressions.<sup>86</sup>

According to Sellars, sensations yield non-conceptual representations of the real order, whereas intuitions conceptually represent the object. The purely passive manner in which sensations are brought about guarantees that intuitions are of the objects the perceiving person takes them to be of. Sensations are necessary for guaranteeing the objectivity of our conceptual representations.

What does it mean to say that non-conceptual sensations guide our perceptual judgments? On what I have called an empiricist understanding of the sensible conditions of perception, we first have basic mental representations that are not as yet apperceived, on the basis of which we arrive at conceptual representations. The notion of sensations involved in such a view is

---

<sup>86</sup> In the following, I will always speak of sensations to stick to a more standard translation of Kant’s “*sinnliche Eindrücke*” or “*Empfindungen*”.

problematic in that it raises the question of what representational status sensations should have. More importantly, such representations are subject to the very same objections that Sellars raises against the sense-data view.<sup>87</sup> On such a view, sensations are intermediaries that allow us to form conceptual representations of the objects in view. Sensations and the conceptual capacities which they feed into are understood on the model of a scheme-content dualism, meaning that we have conceptual resources that are void of content, on the one hand, and are able to grasp empirical content that does not have any conceptual structure, on the other. The conceptual scheme is considered to be abstracted (or abstractable) from the sensory content, and the sensory content is considered to be given and in some way accessible to us independently of the concepts we use to form judgments.<sup>88</sup> The picture suggests that we start with a scheme and a content and only in a *second* step *bring* the two together to form a conceptual representation. It is unclear on such a reading of sensations, why sensations are not a version of the given that Sellars criticizes.

Whatever Sellars meant with his appeal to sensations, it must have been something subtler. I will argue that one can find in Sellars a very different view from the one that emerges from what I have called the empiricist understanding of sensations. Shortly after introducing his notion of sensations in *Science and Metaphysics*, Sellars argues that

[t]heir ‘receptivity’ is a matter of the understanding having to cope with a manifold of representations characterized by ‘receptivity’ in a more radical sense, as providing the ‘brute fact’ or constraining element of perceptual experience.

The latter manifold has the interesting feature that its existence is postulated on general epistemological or, as Kant would say, transcendental grounds, after reflection on the concept of

---

<sup>87</sup> I will not recapitulate these objections here. They have been discussed in detail and with different outlooks by Robert Brandom (1995 and in his study guide to Sellars (1956)), Willem deVries (2000), John McDowell (1995 and 2002), and Jay Rosenberg (2000, 2002, and 2003) among others.

<sup>88</sup> The scheme-content dualism that Donald Davidson (1974) argues against has been interpreted in various other ways. The scheme has been understood as a system of concepts, an equivalence class of intertranslatable languages, a theory, and a worldview. Similarly, the content has been understood as everything from objects, events, sense data, to Quinean stimulations. The plausibility of Davidson’s argument rises and falls depending on how these different interpretations of the scheme and the content are combined. Some combinations do not amount to a dualism at all. I thank Anil Gupta for making me aware of this fact. The argument I wish to bring out against the scheme-content dualism is general enough that it will not be necessary to address the various possible interpretations of Davidson’s argument.



human knowledge as based on, though not constituted by, the impact of independent reality. It is postulated rather than 'found' by careful and discriminating attention. The concept of such a manifold is, in contemporary terms, a theoretical construct (p. 9).

Sellars states here that he wants to understand sensations as "theoretical constructs". In "Some Reflections on Perceptual Consciousness" Sellars makes a similar point when he contends that sensations "are not yielded by phenomenological reduction, but postulated by a proto-(scientific)-theory" (1977b, p. 179), arguing that to have a sensation of a pink cube "is not to sense something *as* a cube of pink, though it is a state postulated by a theory designed to explain what it is to *see* (or seem to see) a cube of pink as a cube of pink" (p. 181). Here sensations are not thought of merely as unappereived representations on which perceptions are based, but as that which we must *assume* figures in our perception if we think of our perception as being about objective reality. Symptomatically, Sellars uses the words 'epistemological' and 'transcendental' synonymously when he discusses the role of sensations in perception (1967a, p. 9 and p. 11). The idea suggested is that we must assume that there is something given that figures in our perception, if we want to think of our perception as yielding knowledge of objective reality, that is, of objects as existing independently of our mental capacities.

This is the crucial insight of Sellars that I would like to hold on to. To understand sensations in this second way is to see the role of sensations in perception as a transcendental condition of perception rather than as a primitive building stone in an empiricist framework. In contrast to the empiricist understanding, sensations can now be understood as something other than intermediaries between our conceptual thoughts and the objective reality we perceive, or alternatively between the causal impact and the conceptual outcome of perception.

Such an understanding of sensations is much closer to the Kantian notion of *Empfindungen* or *sinnliche Eindrücke*. On a Kantian view, sensations are the *matter* of perception that we must

assume figure in our perception.<sup>89</sup> But the matter that is given in perception (sensation) is just one side of the sensibility of perception, the other side being its form (intuition). On such a view, the distinction between intuitions and sensations is not understood as one between conceptual and non-conceptual representations or between two kinds of representation understood in any other way, but rather as a distinction between form and matter. Kant does not allow for the possibility of sensations independently of their role in perception and, thus, independently of their role in empirical intuitions. Sensations and intuitions necessarily come together and in this sense are just two sides of one coin. In this sense, Sellars's talk in *Science and Metaphysics* of *sensations* as that which is given, the matter of experience, does not invoke speaking of the given as Sellars attacks it.

But why are *intuitions* not candidates for the given?<sup>90</sup> No doubt, Kant understands intuitions as representations that fulfill the role of linking thoughts to objects, thereby providing the possibility of empirical judgments and, in contrast to sensations, he thinks of intuitions as mental representations proper. Nonetheless, intuitions are not intelligible in isolation either. The *content* of intuitions is only accessible to us in the context of a judgment. Although intuitions are related to an object independently of their role in empirical judgments (intuitions are related immediately to objects), we can only have a grasp on their *content* if they figure in a propositional representation.

How does this bear on the question of how we can direct our thoughts at particular objects? Kant argues, on the one hand, that we can direct thoughts at something particular only when an object is given to us in intuition. On the other hand, he says that intuitions are not enough to have knowledge, "properly so called," of objects (A78/ B103). In other words, the immediate

---

<sup>89</sup> See for instance Kant (1781) A20/B34, A42/B59-60, A167/B209 or A218/B266. I follow the usual practice in referring to passages in the *Critique of Pure Reason* by citing the pagination of the original editions, indicated by A for the 1781 edition, and B for the 1787 edition.

<sup>90</sup> For the sake of ease of formulation I will speak just of intuitions in the following passages, but it should be kept in mind that empirical intuitions and sensations always go together.

representation we have in intuition is not enough to recognize an object. These two lines of thought can be brought together in light of Kant's understanding of concepts as universally applicable rules that can serve as predicates of possible judgments. As rules of synthesis, concepts determine intuitions. Accordingly, intuitional representations are what we grasp when a rule of synthesis is applied to the sensible manifold. Kant's metaphor of intuitions *falling* under concepts or being *subsumed* under concepts can be understood along these lines. The talk of subsumption of intuitions under a concept need not be understood as implying that intuitions are independently intelligible representations that we in a second step recognize as falling under a particular concept. Nor should subsumption be interpreted as suggesting that intuitions are recognized as having a common *property* that the concept stands for. The point is rather that we can identify the content of an intuition only as a *result* of applying a rule.<sup>91</sup>

On the reading of Kant I would like to urge, intuitive representations are involved when we make judgments about an object. The intuitive representation is subsumed under an empirical concept, whereby a conceptual representation is brought about. We can only retrospectively say (when we analyze a judgment) that the intuition in the judgment is the immediate representation of an object, but we cannot have knowledge properly so-called of an object by means of an intuition alone.

Concepts as general representations become singular in the context of a judgment by subsuming an intuition under them.<sup>92</sup> On such a reading, it becomes unproblematic to see

---

<sup>91</sup> I am thus suggesting reading Kant on different lines from Manley Thompson (1972), who writes: "It is thus possible to regard an empirical intuition as in a sense knowledge, and to speak of it as blind without concepts because only as unified through concepts can it become knowledge properly so called" (p. 323). According to Thompson, we can have blind empirical intuitions that provide us with a preliminary form of knowledge, yielding knowledge proper only when combined with concepts. The main problem with this view is that it remains unclear what it is that we grasp or represent with an intuition if the intuition is not subsumed under concepts. On Thompson's view, intuitions are representations the content of which we have access to independently of their role in judgments. On such a view, intuitions just are a form of the given as Sellars criticizes it.

<sup>92</sup> In "Particulars", Sellars introduces a notion of basic particulars that integrates both a "this-factor" (accounting for the particularity of a perceptual representations) and a "such-factor" (accounting for their generality). In *Naturalism and Ontology*, he uses this same notion of basic particulars to play the role of

intuitions as picking out objects immediately towards which thoughts are directed only mediately. Thus, although in perception we are *affected* by an object and, in this sense, it is not up to us what our perceptions are about, this does not imply that we can grasp the content of intuitional representations outside of the context of a judgment. In this sense, Sellars's talk of intuitions does not involve speaking of the given as he attacks it any more than his notion of sensations involves speaking of the given.<sup>93</sup>

I have argued that the role of sensibility is to account for how it is that we can understand our perceptions as being about objective reality. On Kant's picture these sensible conditions are twofold: The matter given in perception, sensation, and its form, intuition. On what I have called an empiricist understanding, intuitions are *epistemically* graspable prior to being embedded in propositional representations. By contrast, on a transcendental understanding, the content of intuitions is only graspable when brought under concepts in a judgment, even though intuitions are what in a judgment link us to the object that the judgment is about.<sup>94</sup> While intuitions are not graspable independently of being subsumed under concepts in the context of a judgment, sensations in their role as the matter for perception of objects are not graspable independently of being formed into empirical intuitions. Intuitions and sensations just are the

---

the "medium of alteration" in his process ontology. For an excellent study of Sellars's process ontology see Seibt (1990).

<sup>93</sup> I am taking a different line from William Alston (2002), who argues that Sellars's critique of the "myth of the given" is incompatible with the view that there is a non-conceptual mode of "presentation" or "givenness" of particulars that is the heart of sense perception. In contrast, I am arguing that a Sellarsian approach is committed to the view that there is something given in perception, but it is only accessible to us if we bring our rational capacities to bear on what is given. Speaking of something being given in perception needs to involve speaking of non-conceptual content. I take the view of perception that Alston endorses to be much closer to Sellars's own account than Alston makes it out to be. I am arguing, however, that it is misleading to think of the central distinction for a Sellarsian approach in terms of conceptual and non-conceptual content. What must be distinguished are rather the elements accounting for the singularity and generality of perception, on the one hand, and the form and matter involved in perception, on the other.

<sup>94</sup> This way of thinking about intuitions is influenced by Gareth Evans's (1982) discussion of information links. On Evans's view, our ability to relate to an object is dependent not only on our ability to receive information about the world, but also on our ability to act in the world. Although I focus only on the thought-dependency of perception in this chapter, I take its dependency on action to be at least as important.

conditions without which we cannot think of ourselves as having perceptions about objective reality. As will become clearer in the next section, the central distinction for a Sellarsian approach should not be understood as one between non-conceptual and conceptual representations, but rather as between the elements of empirical judgments that account for their generality (concepts) and the elements that account for their singularity, the latter involving both form (intuition) and matter (sensation).

### 3. Intuitions and Demonstratives

Now, Sellars interprets intuitions on the model of demonstratives, and thus understands locutions such as ‘that cube’ as providing the linkage to objects perceived. ‘That cube’ is a way of picking up Kant’s phrasing that intuitions are immediately of objects (A68/B93). Here again I would like to distinguish two different ways of reading Sellars. On the face of it, understanding intuitions on the model of demonstratives should strike one as puzzling: ‘That cube’ is a singular use of concepts, however, empirical intuitions are not a basic kind of conceptual activity, but rather the sensible condition for the empirical use of concepts.

No doubt, when our thought is directed at a particular object in perception, we give a concept a singular use. But intuitional content is not a fragment of the content we form in perceptual judgments, but rather a necessary condition for such judgments. For whatever it is worth, Kant is very explicit that it is concepts that are used in a singular, general, or universal manner, and that a singular use of concepts is not the same as an intuition.<sup>95</sup> While it is the intuition that picks out the object in view, it is the concept that determines our understanding of the object. The content of intuitional representations must therefore not be understood in analogy with the content of conceptual representations. Indeed, the distinction between

---

<sup>95</sup> See Kant (1800) §1, Note 2: “It is a mere tautology to speak of concepts as general or universal; — a mistake that rests on an improper division of concepts into general, particular, and singular. Not concepts themselves but only their use [*Gebrauch*] can be so divided.”

intuitions and concepts need not be understood in terms of their content at all. What are distinguished are rather the *manners* in which the representations *refer* to what they are about. While intuitions refer immediately and account for the singularity of perceptual judgments, concepts refer mediately by subsuming an intuition under them.

Intuitions are involved whenever thought is directed at objective reality. Understanding intuitions as fragments of judgments would just be to understand intuitions as a product of receptivity that makes a separable contribution to the perceptual judgments we form when having an object in view. Such a view would fall prey to the very same objections that Sellars raises against the sense-data view. Therefore, Sellars must be after something else when he understands intuitions as having a demonstrative form.

If we think of intuitions as being a necessary condition for any perceptual judgment (demonstrative or not), we can understand intuitions as providing for the possibility of perceptual judgment. Another way of expressing this idea is that intuitions provide us with invitations to judgments or that intuitions are “petitions for judgments” – to use Robert Brandom’s (2002) wording. On such a view, intuitions are conceptual representations that potentially find verbal expression in perceptual statements when subsumed under concepts. When looking at a white wall, we can abstract from unimportant details and can correctly judge the wall as white. Given the circumstances, it might also be correct to say that parts of the wall appear green and pink and that the corners have a brownish tint. The two judgments only seem to be incompatible: although they are about the same object, they refer to different levels of detail. In an analogous way every situation of perception brings about different possible perceptual judgments. Indeed, one might want to say that when a perceiver has something in view there is an open-ended string of possible demonstrative propositions that she is invited to form.

One might object that such a view invokes a superfluous and potentially problematic intermediary stage in perception, namely, a stage in which we make a choice of what we direct

our attention to. When a person perceives a tree swaying in the wind, she might not be aware of its many leaves fluttering in the wind: It is tempting to say that she is not perceptually aware of the leaves fluttering in the wind, because her *attention* is not directed at the leaves. But saying that intuitions only provide for the possibility of judgments need not mean that in perception we make a choice of what we direct our attention to. When we perceive a tree swaying in the wind, we might not be aware of its many leaves fluttering in the wind, but that is not to say that the content of our perception does not represent the leaves fluttering in the wind. One might want to say that we have not made this content explicit.<sup>96</sup>

It certainly is not the case that we actively decide to direct our attention to this or that in perception: We do not look out of the window, assess the situation, the many possible judgments we could form, and decide to direct our attention to this or that. We do not *decide* on what we pay attention to, rather we *find* ourselves directing our attention to this or that. Only when we have already distinguished possible different ways of perceiving an object (say when we have become aware that it is both correct to say that the wall is white and to say that it appears to have patches of pink and green) that we can think of ourselves as choosing to perceive it in this or that way. But to say that there *is* a choice about what we direct our attention to, is not to say that in perception we *make* a choice about what we direct our attention to. It is in this sense that perception is passive: We find ourselves perceiving this or that. This is how one can read Sellars's interpretation of intuitions as having the form "that ..." without thinking

---

<sup>96</sup> Indeed we might want to say be that we perceive the tree swaying in the wind, *because* we see the leaves fluttering in the wind. The idea underlying this thought is the same idea that motivates Leibniz's distinction between grandes and petites representings. On Leibniz's view our perception of the ocean roaring, to use his example, is constituted of a multitude of micro perceptions of the noise that a grain of sand makes when water crashes on it. We are not aware of the noise that every single grain of sand makes when listening to the roaring of the ocean. Nonetheless, we hear the roaring of the ocean *because* we hear the noise of many grains of sand. In order to make proper sense of this thought, it would be necessary to say much more about the connection between these different levels of perceptual content, but it would lead too far away from the main purpose of this chapter to do so here.

of intuitions as being primitive mental representations that are accessible to us prior to conceptual representations proper.

#### 4. Conclusion

Sellars understands the word \*cube\* to be at the same time *semantically classified* by the functional role in virtue of which a \*cube\* is a •cube• and to be *picturing* an object, namely a cube, at least in the veridical case. As I argued in the first section, the application rules involved in •cube•, can be seen as setting up the mapping relation between \*cube\*s and actual cubes. This is not enough, however, to explain how it is that we can direct our thought at this rather than that particular cube in perception. On Sellars's view, our ability to refer to particular objects depends on individual links between judgments and the objects the judgments are about. There are two sides to such a subject matter: The matter given in perception (sensation), and its form (intuition). On an empiricist understanding, intuitions and sensations are *epistemically* graspable prior to a concrete propositional representation. I argue that it is unclear on such a view why sensations and intuitions are not just versions of the given as Sellars criticizes it. By contrast, on a transcendental understanding the role of sensibility is to account for how it is that we can understand our perceptions as being about objective reality. Intuitions and sensations are what we must *assume* figure in our perception if we think of our perception as having a subject matter. Intuitions and sensations necessarily go together in perception of objective reality. While sensations are not graspable independently of being formed into empirical intuitions, the content of intuitions is not graspable independently of being subsumed under concepts in the context of a judgment. On such a view it is unproblematic to see sensations as what is given in perception: They are not intelligible independently of their role as the matter of intuitions, the content of which is accessible to us only in the context of a judgment.



One might want to insist on saying that such sensations have non-conceptual content. In the contemporary philosophical context, it is, however, misleading to use the phrase, unless the content in question is understood to be accessible to the perceiving subject without bringing any conceptual capacities into play. Although Sellars speaks of sensations as having non-conceptual content, he is very explicit that the content provided with sensibility is graspable by the perceiver only in the context of a judgment. If intuitions can mean nothing to us unless we bring our conceptual capacities to bear on them, it is just as misleading to say that they are conceptual representations as it is to see them as non-conceptual representations when isolated from their role in judgments. The conceptual/non-conceptual distinction, thus, does not bring us far in a discussion of the sensible conditions of perception understood in the way I have presented. The crucial distinctions in play are between the form and matter of the sensible conditions of perception as well as the manner in which intuitional and conceptual representations refer to an object: While intuitions account for the singularity of perceptual judgments, the concepts in play account for their generality. As I argued, this is compatible with understanding conceptual activity as constrained by that towards which it is intentionally directed. Indeed, only by allowing that thoughts are *about* something can the transcendental requirement that conceptual activity is intentionally directed *towards* something be met. In contrast to the empiricist understanding, sensations and intuitions are not understood as intermediaries between our conceptual thoughts and the objective reality we perceive, but rather as the conditions without which we cannot think of ourselves as having empirical knowledge.

#### IV. PERCEPTUAL CONTENT, REPRESENTATIONS, AND RELATIONS

I defend a way of thinking of perception as both representational and relational. I argue that a view on which perception represents objects is compatible with a view on which perception is a matter of standing in relation to objects, if the content of experience is understood in terms of potentially gappy content schemas. I show that by acknowledging that perception is both relational and representational, the problems of pure relational and pure intentionalist accounts can be avoided. In contrast to pure relationalism, the view I defend can explain how veridical and hallucinatory experiences may be phenomenologically indistinguishable. Both experiences share a content schema that grounds the phenomenal character of the experience. But in contrast to pure intentionalism, the view I defend can explain the differences between the two experiences with regard to their content. In the case of a veridical experience, the content schema is saturated by an object. In the case of a hallucinatory experience, the content schema is not saturated by an object and, as a consequence, is gappy.

Traditionally, there are two fundamentally different ways of thinking about perception. One is that perception is essentially a matter of representing objects. The other is that perception is essentially a matter of standing in relation to objects.<sup>97</sup> The aim of this chapter is to show that these two approaches are not incompatible and indeed that perception is best thought of as both representational and relational. First, I articulate the problems of pure relationalist and pure intentionalist views. According to pure relationalism, perception is simply a matter of standing in relation to objects. According to pure intentionalism, the content of perception is independent of the object perceived. In Part 2, I consider several ways of thinking about perception as being both representational and relational. I defend a particular understanding of relational contents as potentially gappy *de re* modes of presentation. In the case of a veridical experience, the content schema is saturated by an object. In the case of a hallucinatory experience, the content schema is gappy. In Part 3, I defend this idea against possible objections. In the rest of the chapter, I

---

<sup>97</sup> Views on which perception is essentially a matter of being in a certain conscious state (see for instance Block 2003) are internalist versions of the idea that perception is essentially a matter of standing in relation to an object.

show how this way of thinking about perceptual content does not face the criticisms that pure relationalists have recently articulated against the idea that perception is representational.

## **1. Relations and Representations**

It used to be common ground that perception represents the world as being one way rather than another. The simplest version of this idea is that perception is a matter of representing an object. The fundamentally opposing way of thinking about perception is that perception is essentially a matter of a subject standing in relation to an external mind-independent object. Recently, the idea that perception represents the world as being a certain way has come under attack (Campbell (2002), Martin (2003, forthcoming), Travis (2004), Brewer (2006, forthcoming), Crane (2006), Gupta (2006a, 2006b)). The reasons for questioning the representational character of perception boil down to three points. A first line of criticism is that perception is not the kind of thing that has accuracy conditions. Perception is simply a matter of things appearing a certain way to one. Things appearing a certain way to one is not the kind of thing that one can be right or wrong about. A second line of criticism is that if perception is understood to be essentially representational, then—according to the criticism—these representations figure as epistemic intermediaries between perceptual awareness and what this awareness is of. The idea is that if I could have an experience with the very same content regardless of whether the object that the experience is seemingly of is present or not, then the presence of the object is inessential to the way the experience is. As a consequence, so the criticism goes, experience is cut off from its objects. A third line of criticism is that representations are said to fix perceptual consciousness in a way that perceptual consciousness is not fixed, thereby violating the characteristic phenomenology of perception. As I will show, the last line of criticism involves several distinct elements, such as the fact that in perception our attention and gaze shifts and wanders, that there

are many ways we can perceive a scene to be,<sup>98</sup> and that objects look differently given different lighting conditions and viewpoints.

In reaction to these three lines of criticism, a view has been defended according to which any notion of perception being representational in a substantive way must be rejected.<sup>99</sup> Let's call it *pure relationalism*. As Brewer formulates the idea: "perceptual experience simply opens the subject's mind, as it were, to the constituents of the physical world itself. The selective classification of particular constituents of physical reality enters the picture of a person's relation with the world around her only when questions of their various similarities with, and differences from, other such things somehow become salient in her thought about them, rather than constituting an essential part of their presentation to her in experience itself, which rather provides the fundamental ground for the very possibility of all such thought" (forthcoming, p. 19).

Pure relationalism comes at a price. By denying that perception has content, it cannot account for perception being accurate or not.<sup>100</sup> Now the view sees this as a virtue rather than a vice. It insists that perception is simply an openness to the world. But it does not deny that beliefs and judgments are formed based on perception. So what is contentious is not whether perception has the effect of bringing about mental states with content. The question at stake is

---

<sup>98</sup> By "scene" I mean the configuration of objects in the three-dimensional, egocentric space with the center identified by the perceiver's body.

<sup>99</sup> The accounts that Travis targets are committed to the following principles: "first, that a perceptual experience has a particular representational content (its content), namely, that such-and-such is so; second, that the perceiver can recognize this feature of it (as he would in grasping when the experience would be veridical, when not); third, that this is a content the perceiver may accept or reject (where accepting would be taking, or coming to take, what is thus represented as so to be so). To abbreviate, you are my target if you think experiences have a face value" (2004, p. 82f.). Brewer specifies the views he targets as committed to similar principles: "The first is that contents admit the possibility of falsity, and that genuine perception is therefore to be construed as a success, in which the way things experientially seem to the subject to be is determined as true by the way things actually are in the world around him. It might unfortunately have been false instead. The second is that contents involve a certain kind of generality, representing some object or objects as being determinate ways that such things in general may be" (forthcoming, p. 3).

<sup>100</sup> I will speak always of perception being accurate or inaccurate rather than being true or false, since the argument does not depend on perceptual content being propositionally structured.

whether this content is the content of perception proper. Travis and Brewer insist that perception does not have content. Contentful mental states are only formed at a second stage on the basis of perceptual experience.

But this brings in content too late. By denying that cognitive contents play any fundamental role in perception, pure relationalism amounts to an account on which how things appear is matched by the content of a belief only at a second stage.<sup>101</sup> It is unclear what it can mean to grasp what one's perception is of if there is no content that is cognitively available to the perceiving subject. According to pure relationalism, the mere idea of experience having content entails that this content function as an intermediary between perceptual awareness and the scene that one is perceptually aware of, thereby fixing perceptual consciousness.

I embrace the thesis that what is perceptually available does not fix what one's perceptual awareness is of. Furthermore, I embrace the idea that perception does not involve an epistemic intermediary. But I will show that on the right understanding of perceptual content one can hold on to both ideas while acknowledging that perception has content. So I argue that on the right understanding of content, the way pure relationalism characterizes perception does not compete with perception being representational. I will show that the criticism that pure relationalism articulates affects only particular representational accounts. It affects only what I will call *pure intentionalist* accounts of perception.<sup>102</sup> The essential idea of *pure intentionalism* is that to have an experience is to represent a content that is independent of the physical object of perception.

---

<sup>101</sup> I bring out the problems of such a two-stage account in chapter 3.

<sup>102</sup> I use the term pure intentionalism differently than Egan, according to whom, "pure intentionalism says that the phenomenal character of experience supervenes on the pure representational properties of experience" (2006, p.6), where pure representational properties are possibility-carving contents. They make a distinction between the possibilities in which things are as they're represented to be, and the possibilities in which things are otherwise.

Intentionalism has been understood as the thesis that the phenomenal character of perception supervenes on its representational content.<sup>103</sup> The question of how to think of the relation between perceptual representations and the phenomenal character of perception must be distinguished clearly from the other central question structuring the current philosophical debate about perception, namely the question of how to think about the nature of perceptual content and the role of representations and relations to the objects of perception. I take for granted that the two questions can be addressed independently.<sup>104</sup> I am concerned only with the second question, but my argument has implications for answers to the first question. There are many ways to understand representations as playing an essential role in perception that do not amount to a thesis about what it is like to be experiencing.

On the pure relationalist view, perception is simply a matter of a subject *S* standing in a perceptual relation *R* to an object *o*:

(a) *S**R**o*

There are two fundamental problems with this approach. One is that it is unclear on such an account how it can be possible that veridical and hallucinatory cases of experience can be phenomenologically indistinguishable.<sup>105</sup> The other is that it cannot account for perception having accuracy conditions. One way to express the idea that experience is either accurate or not is that experience represents things as being a certain way in the world. This is just to say that there is a distinction between the possibilities in which things are as they are represented to

---

<sup>103</sup> Byrne takes intentionalism so characterized to be compatible with versions of sense-data theory as well as with disjunctivism. This is because he thinks that both accounts hold that perception has a representational propositional content; they just differ over the nature of the content and what the content is of. As he puts it “Intentionalism ... is neutral on the question of what our experiences are about... It does not take a stand on whether phenomenal character can be explained in terms of, or reduced to, intentionality—at least it doesn’t if these claims don’t follow from the mere fact of supervenience. And intentionalism is silent on physicalism, functionalism, psychosemantics and other topics relevant to ‘naturalizing the mind’” (2001, p. 204).

<sup>104</sup> This assumption is challenged by Martin (forthcoming, see in particular ch. 2). For a helpful discussion on the relation between the question of the phenomenal character of perception and the question of perceptual content see Crane (2006, in particular p. 136).

<sup>105</sup> The very same problem arises for disjunctivist views. For a discussion of disjunctivist views, see Hinton 19733, Snowdon 1981, McDowell 1982, Martin 1997.

be and the possibilities in which things are otherwise. The content is accurate if the environment is as it is represented to be and inaccurate in all other cases. When I speak of perception as being representational without qualification I mean no more than this idea.

There are many conflicting views on *what* it is that experience represents. The content can be conceived of as a proposition, an image-like representation, a property of the perceiving subject, a property of the perceived object, or simply the physical object itself. Regardless of how one stands on this issue, it is important to distinguish clearly the object of perception from the content of perception. Even if perceptual content is object-involving, the object of perception is not a proposition, an abstract object, or a mental state of sorts. If I see a girl with a red hat, my experience is *of* a girl with a red hat. My experience may also have a content. But the object of my perception is the girl, not a proposition, an abstract object, or a mental state of sorts. So even if the basic structure of perception should be a matter of representing objects, this need not mean that the object of perception is a proposition.

Pure intentionalism is a radical version of the idea that perception is representational. On such a view, the content of a perception is the very same as the content of a phenomenally indistinguishable hallucination. Since the content is the same, the presence of the object that the experience is of is not reflected in the content of the experience. The experience could have been just as it is, if the object had not been present. This is just to say that experience has only existentially quantified contents of the form that there is an object  $x$  that has the property  $P$ :<sup>106</sup>

(b)  $(\exists x)Px$

The assumption is that the content of experience represents the *existence* of objects in the external world. On such a view, no reference to the object of perception is necessary to specify the content. As a consequence, it is possible to be in a mental state with the relevant content

---

<sup>106</sup> What is sometimes referred to as *descriptive content* has the same characteristic of being independent of the object that the experience is of. For a discussion, see Evans 1982. Arguably, the contents that Searle (1983) attributes to experiences are descriptive contents. For a discussion of his view and a discussion of the problems of thinking about content along these lines, see McDowell 1977 and 1991.

regardless of whether the object that the mental state purports to be of is in fact present. The experience is veridical just in case there is an item in the world that possesses the properties specified by the content.

The advantage of this view is that it can easily explain how hallucinatory and veridical experiences can be phenomenologically indistinguishable. Since the content of perception is phenomenological content, hallucinatory and veridical experiences have the same content if they are phenomenologically indistinguishable. Indeed accounting for this possibility is one of the main motivations for thinking of perceptual content as existentially quantified content. As Davies puts it: “the perceptual content of experience is a phenomenal notion: perceptual content is a matter of how the world seems to the experiencer ... If perceptual content is, in this sense, ‘phenomenological content’ ... then, where there is no phenomenological difference for a subject, then there is no difference in content” (1992, p. 26).

The problem with this way of analyzing the content of experience is that it does not account for the difference between the content of my experience when I am perceiving an IKEA furnished room and the content of my experience when the furniture is replaced by different but phenomenologically indistinguishable furniture. In other words, it does not account for the particularity of experience. Davies explicitly embraces this view: “if two objects are genuinely indistinguishable for a subject, then a perceptual experience of one has the same content as a perceptual experience of the other” (1992, p. 26).<sup>107</sup> If perceptual contents are existentially quantified contents as Davies argues, then the particularity of perception cannot be accounted for in the perceptual content. According to pure intentionalism, for an experience to be accurate is for there to be an object that satisfies the existentially quantified content. It is not determined which particular object satisfies the content. So it is not determined which particular object is represented by the subject’s experience. This is just to say that the question of the accuracy of

---

<sup>107</sup> McGinn (1982) argues for a similar thesis.



an experience can be settled independently of the question of whether there is an object being perceived at all and which particular object is being perceived.

Perception seems to provide us with more information than, say, that there is a couch in the corner. It provides us with information about which couch is there, namely the very one over there. If this is right, then it is not sufficient for experience to be veridical that there is an item in the world that possesses the properties specified by the content. It is necessary moreover to determine which particular object in the subject's environment is represented by a subject's experience to determine whether the subject's environment really is as it is represented to be. If this is right, then the answer to the question of whether an experience is accurate depends on whether there is an object being perceived and which object is being perceived.

A second problem with pure intentionalism is that one's capacity to pick out the extension of a content is not already integrated in the capacity to grasp the content. Determining the extension of the content requires either implicit or explicit knowledge of a condition that determines the extension of the content. If perceiving an object requires such knowledge, then grasping the content arguably acts as an epistemic intermediary. If it is possible to be in a mental state with the relevant content regardless of whether the object that the mental state purports to be of is in fact present, then there is a priority to the content that picks out the object that the perception is of. Indeed one might say that grasping a content makes it possible for the subject to perceive the object. Pure relationalists argue that any account on which perception is representational faces this second problem. I am arguing that only pure intentionalists face this problem.

In contrast to pure intentionalism, pure relationalism holds that a relational conception of experience makes representations superfluous. On such an account the particularity of perception is easily accounted for. In so far as I am standing in relation to this rather than that furniture, I am perceiving this rather than that furniture. But if perceptual states do not have

content, it is unclear how the possibility that hallucinatory and veridical experiences can be phenomenologically indistinguishable can be accounted for.

Pure intentionalism and pure relationalism are not the only alternatives. By conflating the question of whether perceptual content is externally individuated with the question of whether perception is a matter of standing in relation to objects, the response of pure relationalists to the problems of pure intentionalism is blind to, what I will argue are, more attractive ways of thinking about perceptual content. In order to avoid the problems of both accounts, it is necessary to take a closer look at what it means for perception to be a matter of representing objects and to take a closer look at what it means for perception to be a matter of standing in relation to objects. In the next section, I will consider different possible understandings of the idea that perception is both representational and relational. I will argue that perception is representational, but that these representations are saturated by objects—at least in the veridical case. In the hallucinatory case, the content schema is gappy. In the subsequent section, I will defend this idea against common objections to the idea that perceptual content is object-dependent. In the final section, I will argue that if perceptual content is understood in terms of potentially gappy content schemas, then we can hold on to the idea that perception is representational without being committed to the idea that these representations function as epistemic intermediaries.

## **2. Relational Contents**

How can we account for the representational character of perception without the representations figuring as epistemic intermediaries? Existentially quantified contents can be contrasted with *relational* contents. On a relational understanding of perceptual content, standing in a relation to an object is not made possible by grasping a content, but is either independent of grasping a content or goes hand in hand with grasping a content—whatever that means. The contrast

between existentially quantified and relational content needs to be distinguished clearly from the contrast between narrow and wide content. The latter distinction is a matter of what the content supervenes on: narrow content supervenes on internal features of the perceiving subject, while wide content (in addition) supervenes on features of the individual's environment.<sup>108</sup>

There are many possible ways of thinking about perceptual content as involving both representations and relations to objects. One suggestion might be to say that experience is a conjunction of two distinct elements:

(c)  $SRx$  and  $SH(\exists x)Px$

Subject  $S$  stands in relation  $R$  to an object  $x$  and a relation  $H$  to the representation that there is an object  $x$  that has the property  $P$ . On this suggestion, experience represents objects and in the successful case the subject stands in relation to an object. Neither element is dependent on the other. On such a view, two elements are in place in a successful case of perception. In a hallucinatory experience, the subject represents that there is an object that has a certain property, but there is no relation between the subject and the object that the experience seems to be of.<sup>109</sup> Since the subject does not stand in a relation to a perceived object, the representation is only of a seeming object.

This way of thinking about experience makes cases of perception seem like happy coincidences in which two independent elements add up. The problem with such an account is that the representational element is independent of whether the object of perception is present.

---

<sup>108</sup> Often narrow contents are associated with the claim that the content of perception supervenes on the phenomenal character of perception while wide contents are associated with the claim that the phenomenal character of perception supervenes on the content of perception. But the distinctions between wide and narrow contents, on the one hand, and between representations understood as connected to or independent of phenomenal character, on the other, do not run parallel. Phenomenal character can be understood as narrow (Chalmers) or wide (Byrne). And the alternatives are not exclusive. One can think of the representations that account for the phenomenal character of experience as determined in part by the objects that we perceive and in part by internal features of the perceiver (Dretske 1995; Tye 1995c).

<sup>109</sup> In the interest of simplicity, I will consider only hallucinations as the contrast to accurate perceptions. A case analogous to the one made for hallucinations can be made for illusions and other kinds of inaccurate experiences.

In this respect, the suggestion just is a version of pure intentionalism. What we need is a way of understanding the content of experience on which the relational and representational component are not independent. This requirement is satisfied if the content is understood as involving a gap that is either saturated or not saturated by an object. In the case of a perceptual experience, the content schema is saturated by an object. In the case of a hallucinatory experience, the content schema is not saturated by an object. Since there is no object present the content schema is gappy. The content schema expresses the properties that an object would have were the subject to be standing in a relation to an object.<sup>110</sup> The content schema expresses which properties the object has or would have were an object present. So the content schema expresses say that the object that is (or seems to be) present has the property *P*:

(d) P \_\_

Two phenomenologically indistinguishable experiences, one of which is a hallucination the other of which is a perceptual experience have the same content schema. It is the content schema that accounts for the phenomenology of the experience. A similar explanation can be given for the case in which I am perceiving two different but phenomenologically indistinguishable objects. If I perceive a different object, the content of my experience is different regardless of whether this difference is reflected in my phenomenal consciousness. So if I am perceiving an IKEA furnished room and the furniture is replaced by different but phenomenologically indistinguishable furniture the content of my experience changes since I am standing in relation to different objects. The properties I attribute to the furniture do not change, so phenomenologically the experiences are indistinguishable. In contrast to the pure relationalist account, this sameness in phenomenology can be explained. Since both experiences

---

<sup>110</sup> For a discussion of gappy contents, see Braun 1993. For an excellent discussion of perceptual content in terms of content schemas, see Bach 1997. Bach argues that the content of experience determines only a schema for the condition of satisfaction of any particular experience with that content. The content schema includes a slot which is filled by whichever object (if any) is in the relevant causal relation to the experience.

attribute the very same properties to the objects, they have the very same content schema. As a consequence, the two experiences are phenomenologically indistinguishable. On such an understanding, the accuracy of a subject's experience is dependent on how things are in the subject's environment. The condition required for the content to be accurate is dependent on the object perceived.

These potentially gappy content schemas can be thought of in terms of Russellian contents or in terms of Fregean senses. While a Russellian content contains objects, a Fregean sense is a mode of presentation of the object. To a first approximation, a Fregean sense can be characterized as the specific way in which a subject thinks of an object when she refers to an object. Applied to the case of perception, the idea is that a mode of presentation is the specific way in which an object is perceived by a subject. The fundamental point of modes of presentation is to capture a fineness of grain in contents that references to objects could not achieve. On a Russellian understanding, alternative possible modes of presentation can only be expressed insofar as one can have different cognitive attitudes to the same content. The alternative possible modes of presentation are not expressed in the content proper.

Traditionally, there are two ways of understanding Fregean modes of presentation that correspond to Frege's use of modes of presentations as accounting for both the cognitive significance of expressions and as accounting for a way of picking out objects. On the first understanding, modes of presentations are independent of the objects of which they are modes of presentations. Let's call these *de dicto modes of presentation*. Chalmers can be read as understanding modes of presentation in this way as narrow contents, more precisely as "abstract entities to which psychological states may be related, by having them as their content" (2004, p. 172). *De dicto* modes of presentation constitute a way of thinking about objects, regardless of whether the object is in place. *De dicto* modes of presentation are removed from the objects of which they are modes of presentation because the content that picks out the object is independent of the object that is picked out. But this cannot be right. If a mode of presentation is

a specific way in which an object is perceived by a subject when the subject perceptually discriminates an object, then the mode of presentation of an object cannot be independent of picking out the object.<sup>111</sup>

Narrow contents, such as *de dicto* modes of presentations, are not the only alternatives to Russellian object-involving contents. We can reject an understanding of perceptual content as Russellian contents and nonetheless hold on to the idea that perceptual content is object-dependent. To bring out how, it is helpful to contrast *de dicto modes of presentations* with object-involving *de re modes of presentation*.<sup>112</sup> Perceptual content understood as constituted by modes of presentation of objects rather than the naked objects themselves is not just compatible with the idea that perception is object-involving. If content is a function from a scene to an epistemic intension, this implies that the content depends on the object that the perception is of. Perceiving an object a certain way must involve not just a characterization of the object but furthermore a reference to the object. Furthermore, only if an object is present can it be perceived in a specific way. If this is right, then not only is a mode of presentation dependent on picking out the object perceived, it is dependent on an object being present.

*De re* and *de dicto* modes of presentation both differ from Russellian contents. They differ from one another with regard to what this move away from Russellian contents implies. More precisely they differ with regard to whether they are dependent on the object in view. *De re* modes of presentation differ from *de dicto* modes of presentation contents in that they are wide rather than narrow contents.

The idea that perceptions are object-involving allows for a straightforward way to account for the particularity of perception. If representations are object-involving, then the content of the

---

<sup>111</sup> Whether or not this is the right reading of Fregean senses does not matter for the purposes of the argument. The important point is that *de re* modes of presentation are dependent on the objects perceived. For an excellent discussion of these two ways of understanding Fregean senses, see Evans 1982, ch. 1 & 2.

<sup>112</sup> I take up this distinction from McDowell (1984).

experience changes if the content schema is saturated by a different object. So if you and I are in different but perceptually indistinguishable IKEA furnished rooms, our mental states would be different since they would refer to different objects. The particularity of our perceptions is secured by the particular objects in view.<sup>113</sup> Furthermore by thinking of modes of presentation as *de re*, we can make room for a way of thinking about experience as representing objects in a way that is not subject to the criticisms that pure relationalism has voiced against representational accounts. Before I show why, it will be necessary to address the objections commonly raised against object-dependent contents.

### **3. Criticism of Object-Dependent Perceptual Content**

It has been argued that perception cannot be object-dependent since it is possible that you have an experience that is phenomenologically indistinguishable from my experience of, say, a red surface, even though your experience is of a red surface, while mine is not. The argument targets cases in which our experiences are of objects with relevantly different intrinsic properties as well as cases in which your experience is a perceptual experience, while mine is a hallucinatory experience. From the observation that our experiences can differ in either of these two ways and nonetheless be phenomenologically indistinguishable it is concluded that the content of our experiences must be the same. If the content of our experiences is the same

---

<sup>113</sup> I discussed the difference between general and particular content in more detail in chapter 3. Since perceptual and hallucinatory experiences are fundamentally different insofar as the content of the former is saturated by an object, while the content of the latter is not, the suggested way of thinking about experiential states differs fundamentally from Burge's way of thinking about mental states. Burge (1991, p. 208) argues that there are demonstrative elements in the content of perception that are in place regardless of whether they refer to the object of perception and regardless of which object they refer to. By doing so, he can account for the particularity of perception while holding on to the idea that perception is representational. But insofar as the representation in place is grasped quite independently of perceiving the object and consequently hallucinations and perceptions have the very same content, the view turns out to be a version of descriptive representationalism. Soteriou (2000) presents a view similar to Burge's view of what it means for a perception to be of a particular object.

although my experience is of a different object than yours (or of no object at all), then the content cannot be object-dependent.

The argument is based on the assumption that for two experiences to be phenomenologically indistinguishable is for them to have the same content. If perceptual contents are understood as phenomenal contents, then to have the same content just is for the experience to be phenomenologically indistinguishable. But if a distinction is drawn between what experience is of and what one takes one's experience to be of, then one can deny that for two experiences to be phenomenologically indistinguishable is just for them to have the same content. This is not to deny that they have something in common. As I have suggested, they have the same content schema. It is the content schema that accounts for the phenomenal character of the experience. But since we are perceiving different furniture, different objects satisfy the content schema of our experiences. As a consequence, the content of your experience is different from the content of my experience.

There are different ways to understand the claim that two experiences are phenomenologically indistinguishable. Williamson (1990) and Martin (2003) use the expression to pick out an epistemic notion. I will follow this use. On this conception, for two experiences to be phenomenologically indistinguishable just is for the subject not to be able to distinguish them. If "phenomenal indistinguishability" means no more than this, then there is no reason to think that two phenomenologically indistinguishable experiences must have the same content. In order to show why, it will be necessary to take a closer look at the two cases of phenomenologically indistinguishable experiences that the argument against wide content targets.

In the first case, our experiences are of objects with different intrinsic properties that however look the same due to lighting conditions or other situational features under which we perceive them. Let's call the perceivable properties that objects have regardless of the given situational features their *intrinsic properties*. It is no doubt true that an object can look



differently in different perceptual situations. A uniformly white wall looks differently depending on whether it is illuminated or cast in shadow, and shapes look differently perceived from different angles. Furthermore, two objects with different intrinsic properties can arguably look the same due to the situational features. But this does not present a problem for the idea that perception is object-dependent. It only presents a problem for the idea that perceptual content is simply of the intrinsic properties of objects.

Perceptual content is not just of objects' intrinsic properties, but also of the way these objects are presented given the lighting conditions, the perceiver's location, and similar situational features that determine how the object looks.<sup>114</sup> The way an object is presented is determined by both the situational features and the intrinsic properties of the object. How objects are presented can be understood in terms of actual properties of the objects, namely situation-dependent properties. They are a function of the object's intrinsic properties and the situational features. Although they are fleeting insofar as they change as the lighting conditions and one's viewpoint change, they are as much part of the objective content of perception as the object's intrinsic properties. Perception represents both intrinsic and situation-dependent properties of objects. If this is right, then for perceptual content to be accurate is for it to be not only accurate with regard to the intrinsic properties of objects, but also accurate with regard to their situation-dependent properties. So the way objects are presented makes a difference to which perception it is.

If perceptual content is understood not just as of the intrinsic properties of objects but also of their situation-dependent properties, then your experience and mine can be of different objects that look the same due to the situational features. While your experience accurately represents the intrinsic property of a perceived object, mine accurately represents the situation-dependent property of an object given the lighting conditions. As a consequence, we can have

---

<sup>114</sup> For a detailed discussion of this thesis, see chapter 1.

phenomenologically indistinguishable experiences, although your experience is of an object that is red, while mine is of an object that only looks red given the lighting conditions. So if the objection against wide content targets the case of two phenomenologically indistinguishable experiences of distinct objects, then it can be met insofar as the difference between your experience and mine can be reduced to a difference in the mind-independent, external properties of the object that the experience is of.

It is more difficult to defuse the objection against wide content if it is targeted at the case in which your experience is of an object, while mine is a mere hallucination. How can it be that two experiences are phenomenologically indistinguishable, although only one represents an object? In order to address this question, we need to take a closer look at what it means for perception to be object-dependent and what it means for a hallucinatory experience to have a content. Traditionally, there are two ways of thinking about hallucinations. One is that since there is no external object present, what one is aware of must be a mind-dependent object, namely a sense-datum. The sense-data fallacy is to argue that since veridical experiences can be phenomenologically indistinguishable from hallucinatory experience, the direct object of perception is in both cases of experience a sense-datum. A second approach is to say that the subject is not representing an object in the hallucinatory case. This is the approach adopted by disjunctivists. The argument in short is that since there is no object present, there is nothing to be represented. It is concluded that the hallucinatory experience does not have a content properly speaking. So it only seems to the subject that she is representing an object.

If the content of experience is understood in terms of potentially gappy content schemas, a third way of understanding hallucinations becomes available. If you are of an impressionable disposition with a proclivity to Norse mythology, you might occasionally hallucinate an elf. It is natural to say that your experience is of an elf. The question is how to understand the “of” in play. Clearly, one can articulate *what* one’s hallucinations are of. If this is right, then it seems one can specify the content of hallucinations. If one can specify the content, then one must be

representing something and not just be seeming to represent something as on the disjunctivist approach. Cases of hallucination show that one can have contentful experiences even though one is not in an environment that contains the object that one's experience is seemingly of. So arguably, having the right kind of phenomenology does require standing in external relations to the object that one's perception seems to be of.

The idea of potentially gappy content schemas allows one to say that hallucinatory experiences represent properties that an object would have, were the experience an accurate perceptual experience. So the content of a hallucination specifies an object that would be present were the hallucination in fact an accurate experience. It is precisely because the object that the hallucination seems to be of is not present that the hallucination is not an accurate experience. So the claim that perceptual content is object-involving does not imply that experience has no content if no object is present. As I have suggested, the content schema of phenomenally indistinguishable perceptual and hallucinatory experiences are the same. The difference between the two experiences is that the content of a hallucination is gappy, while the content of the perceptual experience is saturated by an object. Therefore, the content of the perception is object-involving.

If this is right, then whether or not the content schema is saturated by an object cannot affect the phenomenology of perception. In other words, whether or not the subject is standing in relation to an object has no bearing on the phenomenal character of the experience. Furthermore, although a hallucination is seemingly of a particular object, its content is not particular. The hallucinatory experience might emulate the particularity of the perceptual experience phenomenologically, but since the content schema in the case of a hallucination is not saturated by an object it can only be general, not particular. A further difference between the two experiences lies in the *ways* the content schemas are realized. In the perceptual case, the content schema is realized because of an object in view, while in the hallucinatory case the content schema is realized merely because of neurons firing. So the thesis that perceptual

content is object-dependent is not to deny that the same content schema could be brought about without an object being present.

The difference between *de re* modes of presentation and *de dicto* modes of presentation expresses itself here. According to Chalmers, “Fregean content is supposed to be a sort of phenomenal content, such that, necessarily, an experience with the same phenomenology has the same Fregean content” (2006, p. 99). I am not understanding modes of presentations as phenomenal contents. On the suggested way of thinking about perceptual content, it can be explained how experiences with different contents can have the same phenomenology. If this is right, then the objection against wide content can be met not only for the case of two phenomenologically indistinguishable experiences of objects with relevantly different intrinsic properties, but also for the case of two phenomenologically indistinguishable experiences, one of which is a perception, the other of which is a hallucination. So acknowledging that hallucinatory and perceptual experiences are phenomenologically indistinguishable does not require rejecting the thesis that perceptual content is object-dependent.

So in contrast to pure relational accounts, the suggested way of thinking about perceptual content can explain how veridical and hallucinatory experiences may be phenomenologically indistinguishable. Both experiences have the same content schema. This content schema grounds the phenomenal character of the experience. But in contrast to pure intentionalist accounts, the suggestion can explain the differences between the two experiences. In the case of a veridical experience the content schema is saturated by an object, while the content schema in a hallucinatory experience is gappy.

#### 4. Perceptual Content without Epistemic Intermediaries

According to pure relationalists, any representational understanding of perception faces the problem that the representations figure as epistemic intermediaries between perceptual consciousness and the perceived object. But representations only act as epistemic intermediaries if perceptual consciousness is based on or determined by a representation rather than by the object perceived. If perceptual content is itself understood as relational, then the representation and our perceptual consciousness are both determined directly by the perceived object. Neither representations nor relations to objects are prior to the other or determined by the other. On such a relational understanding of perceptual content, the idea that perception is representational does not face the problem that perceptual consciousness is fixed, thereby violating the characteristic phenomenology of perception. In order to show why, it is necessary to consider in more detail what the criticism amounts to.

Brewer (2006; forthcoming) argues that to understand perception as representational is to understand perception as representing a particular object as being a determinate general way, which infinitely many qualitatively distinct objects are. The idea is that an object's identification through demonstratives requires making a determinate specification of one among indefinitely many possible abstractions away from, or generalizations of, the particular object in view. According to Brewer, any view according to which perception is representational requires that the object of perception is specified in a determinate way, which in turn requires abstracting from the specific way it is presented. Brewer insists that this in a fundamental way violates the characteristic phenomenology of perception. Similarly, Travis argues: "There will ... be *many* diverse cases where one sees\* a pig. It cannot be that in all of these it is represented to one as so that there is a pig before one. That would make representation in perception incoherent, so not intelligibly representation at all. Too many things would thereby be represented as so at once. There are just too many things things look like" (2004, p. 87). Travis uses the term sees\* to

refer to the kind of understanding of perception according to which one can count as experiencing an object regardless of whether it is present or not. Travis does not object to the idea that in having an experience one may represent that such-and-such is the case. He insists, however, that there is no unique 'taking' associated with an experience. So representations only ever come about on the basis of an experience. They are not part of the experience proper. So it is only once one has taken the environment as it is presented in some specific way that representations and accuracy conditions enter the stage.

There are at least three very different ideas behind the criticism that a representational account of perception implies that perceptual consciousness is fixed in a way that perceptual consciousness is not fixed. One idea is that an object looks differently in different perceptual situations; a second is that there are many ways an object can be perceived; a third is that in perception our attention and gaze shifts. To show why the suggested way of thinking about perceptual content does not fall prey to the criticism of the pure relationalist view, we will have to address each idea individually.

If experience represents the world as being a certain way, then there is exactly one way the world would have to be for the representation to be accurate. Now the way objects look changes as situational features, such as the lighting conditions and the perceiver's location in relation to the object, change. This fact is often voiced as evidence that any version of representationalism must be misguided. The criticism in short is that you have a representation of a red apple. There are many ways the red apple can look given the situational features. In each case, you just represent that there is a red apple there. So representationalism cannot do justice to the phenomenology of perception.

As I argued earlier on, it is no doubt true that an object can look differently in different perceptual situations. But this is not an objection to the idea that perception is representational. It is only an objection to the idea that perception simply represents that there is an object with such and such intrinsic properties. If perception is understood as representing how the object is

presented given the situational features over and above representing the object's intrinsic properties, the objection can easily be met. The way objects are presented given the situational features just is an element of the world. If this is right, then perception is not just object-dependent, but moreover situation-dependent. If I perceive the cup on my desk, I represent the shape of the cup by representing the way the shape is presented given my location in relation to it. I perceive the cup's intrinsic shape precisely because it is presented to me the way that shape looks given my location. If the way objects are presented given the situational features is understood as part of perceptual content, then the fact that the same object looks differently given one's viewpoint and the lighting conditions is not an objection to the idea that perception is representational.<sup>115</sup>

The second element of the objection against representationalism focuses on the fact that we can perceive an object or a scene in different ways. There is no unique way for a scene to be taken—as Travis puts it. The idea is that when we perceive, say, someone with a smile on her face, we can perceive her as happy, pleased, nervous, eager to please, relaxed, or as being gleeful. Or we can perceive a couple in a restaurant as in love, as having an animated conversation, or simply as talking together.

This again is no doubt true. There are two aspects to this objection. One has to do with the difference between perceiving something as something and simply perceiving the world to be a certain way. Travis considers mostly high-level cases of perception. His examples are perceiving that someone is drunk or perceiving a painting to look like a Vermeer. Perceiving something as something can be understood in analogy to reading something in a certain way.

---

<sup>115</sup> In a similar way, Heck's (2000) criticism of perceptual content conceived of as conceptually structured can be deflected. Heck argues that the surface of a table looks differently depending on whether it is illuminated or cast in shadow. As a consequence, according to Heck, demonstrative concepts are not sufficiently fine-grained to capture the content of perception. He concludes that perception is non-conceptual. If demonstrative concepts can pick out situation-dependent properties in just the way that they can pick out intrinsic properties of objects, Heck's criticism can be defused. His objection just shows that perceptual content cannot be individuated simply by the intrinsic properties of objects.

The information provided is interpreted in a certain way. The idea implies that one forms a perceptual judgment based on the information provided in experience. Given one's background knowledge, one will form different perceptual judgments. Say I am looking at a building with 51 floors. I can perceive it as a skyscraper. If I have no concept of a skyscraper, I will not perceive it as such. I will perceive it simply as a very tall building.

No one denies that many different judgments can be formed on the basis of one perception. But from the observation that any given scene can prompt many different judgments, the pure relationalist concludes that perception has no content whatsoever. The question is whether we can say that there is no unique judgment prompted by a scene and nonetheless hold on to the idea that perception itself is representational.

The very same argument just given for high-level cases of perception can be given for low-level cases of perception, such as perceptions of shapes and colors. When perceiving something to be round, the information provided is interpreted as of a round object. If a subject has no concept of something being round, she will not perceive it as round. She will just perceive it as extended in space in a certain way. This second aspect of the objection brings out that perceptual content itself (assuming for the sake of argument that there is such a thing) can be affected by the different ways things can be taken to be; not just the perceptual judgment formed on the basis of the information provided by experience. So it is only here that we get to the heart of this second way of understanding the objection that representations fix perceptual consciousness.

However, the fact that things can be perceived in many ways is not an indication that perception is not representational. It is one thing to say that there is exactly one way the world would have to be for a representation to be accurate and quite another to say that there is only one possible representation of a scene. Representationalism is only committed to the former, not to the latter. For perception to be representational it is not required that there is only one determinate way that things can be perceived. Even if there are many ways that the world can be



perceived as being, there is only one way the world is. Our perception is accurate, only if we represent the way the world is.

As the following examples show, many different representations can be accurate with regard to one scene. Norway's jagged coastline has exactly one length, but depending on what level of detail we choose when measuring it, we will measure very different lengths. The results of the measurements will not only be different, they will be incompatible. But this is not to deny that there is only one way the world is and that any given measurement is accurate or not. And it is not to say that only one of them is accurate. It just means that the accuracy of the measurement must be assessed relative to the chosen level of detail of measurement. To take an example closer to home: a scene can be photographed once with a standard lens and once with a wide-angle lens. The representations of the scene will be different, but there is no commitment to saying that at least one of them must be false or inaccurate. Again, just because there is only one way the scene is, this does not imply that there is only one possible accurate representation of the scene. In a similar sense, depending on our cognitive tools—our background knowledge and interests—we will perceive things differently and are likely to focus on different details of a scene.<sup>116</sup> If I do not have a concept of a skyscraper, I will perceive a 51-story building as nothing more than a tall building. It would be odd to say that my experience is inaccurate because I do not perceive the building as a skyscraper. Similarly when I am looking at the tree in front of my window, I might not be perceptually aware of the bug on the twig even though it is perceptually available to me. But again it would odd to say that my perception is inaccurate if it does not represent every detail perceptually available to me. If representing every perceptually available detail were the requirement for a perception to be accurate, there would be very few accurate perceptions.

---

<sup>116</sup> Gupta (2006a; 2006b) has recently put forward an ingenious account of the interdependency of experience, perceptual judgments, and the views or background knowledge that subjects bring to bear on what is given in experience.

These examples show that the fact that there are many ways that any given scene can be perceived does not imply that we do not represent the scene and it does not conflict with the fact that there is only one way that the scene is. So the claim that perceptual content is accurate if the scene is as it is represented to be and inaccurate in all other cases does not imply that only one representation can be accurate.<sup>117</sup>

The third element of the objection against representationalism goes to the heart of the characteristic phenomenology of perception. It is characteristic of perception that our attention shifts from one feature of an object to another and from one object in view to another. Our attention can shift, even as our gaze remains steady. When I look at the tree in front of my window, I can admire the delicate shape of the leaves or focus my attention at the lushness of the green. Possibly the color of the leaves even seems brighter and more saturated when I focus on it. In short, my perceptual consciousness changes as my attention shifts.

There are at least two ways of explaining this phenomenon while holding on to the idea that perception is representational. The first is that the content of perception changes as the subject's attention shifts. If perceptual content is object-dependent, then what experience represents when a subject has a scene in view will change as her attention shifts from one aspect of the scene to another.

A second possible explanation of how it can be that perception represents a scene a certain way although perceptual awareness can dramatically change while the perceived scene remains unchanged is that there is not necessarily a one-to-one correlation between what one represents

---

<sup>117</sup> *Pace* Travis (2004). Travis argues “[f]or looks to identify a content, one needs a principled way of ignoring some of the specific ways things look, and attending only to others” (Travis 2004, p. 72). Travis expresses the same thought in more detail when he writes: “Take one way things may be said to look. Now take any way things may fail to be what they would need to be to be what they thus look like. That is another way things may be said then to look: they look just the way they would if that, rather than the first thing, were the way things were. So this second way for things to be—for them not to be that first thing they may be said to look like—could, if it in fact obtained, make it the case that things were not the way they looked only if something made it so that it was only the first thing things looked like, and not the second, that mattered to things being as they looked full stop.” (2004, p. 74).

and what one is perceptually conscious of. Some of the things represented in perception may be in the foreground of one's perceptual awareness, while others are in the background.<sup>118</sup> When perceiving a wall to be uniformly white, one can be aware of the shadows cast on the wall even though one's attention is directed at the wall being uniformly white. One can shift one's attention to the shadows. By doing so one may still remain perceptually aware of the wall being uniformly white. Depending on what aspects of the scene one's attention is directed at, some aspects will emerge at the forefront of one's perceptual awareness, while others will recede into the background. If one can represent things that are only in the background of one's awareness, then there seems no reason to deny that one can represent things of which one is barely aware or not aware at all.<sup>119</sup> This can explain cases in which one remembers things one perceived when prompted although one was not aware of them at the time. One may become aware that the noise outside of one's window stopped although one was not consciously aware of the noise at the time it was occurring.<sup>120</sup>

The idea that there is not a one-to-one correlation between perceptual awareness and what is represented does not imply that our perceptual awareness is based on what is represented. What we represent and what we are perceptually aware of need not be based on the other. Instead both can be directly determined by the object in view. If this is right, then the observation that our perceptual gaze shifts and jumps does not stand in conflict with perception being representational, and it does not require that the representations mediate perceptual consciousness. All that the idea commits us to is that what is perceptually available does not necessarily coincide with what we attend to. Certain aspects of what is represented can be in the foreground of perceptual awareness, while others can be in the background.

---

<sup>118</sup> For a defense of such a distinction between foreground and background awareness in perception, see Brewer 1999.

<sup>119</sup> Bermúdez (2000a) distinguishes between content of attention and content of perception in a similar way.

<sup>120</sup> Block (e.g. 2003) accounts for such phenomena with his distinction between phenomenal consciousness and access consciousness.

I have sketched two explanations of how the thesis that perception is representational is compatible with the phenomenon that perceptual consciousness shifts as one's attention shifts. There are likely to be other explanations. The two explanations offered are not incompatible. Both elements may be involved in a particular event of perception. A subject's representations may change as her attention shifts, and certain aspects of what her attention is directed at may be in the foreground while others are in the background. If I am admiring the lush green color of a leaf, the color of the leaf may be in the foreground, while its shape may be in the background of my perceptual awareness. I may not be representing the branch protruding from below the leaf, although it is directly in my line of sight.

## 5. Conclusion

Traditionally views according to which perception is essentially relational have been taken to be at odds with views according to which perception is representational.<sup>121</sup> I have argued that if perception is understood as both representational and relational then one can hold on to the idea that perception has accuracy conditions without falling prey to the criticism recently articulated against representational accounts. According to pure relationalism, the mere idea of representations as determining the object of perception is thought to entail that representations function as an epistemic intermediary between perceptual awareness and the scene that one is perceptually aware of. But the criticism only affects what I have called pure intentionalist accounts of perception, that is, accounts on which the content of perception is independent of the object perceived.

So I have argued that we can drive a wedge between two standard ways of thinking about perception. We can hold on to the intentionalist insight that perception is a matter of representing objects while embracing the relationalist insight that perception is not simply a

---

<sup>121</sup> For a recent expression of this idea, see Crane 2006.

matter of (narrow) cognitive contents becoming subjectively available. By doing so we can avoid the problems of both approaches to perception. On the pure intentionalist account, representations figure as epistemic intermediaries thereby removing us from the object that our perceptions are of. On the pure relationalist view, perception is simply a matter of being open to the world. Representations only come on the stage in a second act, when perceptual judgments are formed on the basis of the perception. But this brings in representations too late. It is unclear what it can mean to grasp what one's perception is of if no contents are in place that are cognitively available to the perceiving subject.

I argued that a view on which perception represents objects is compatible with the idea that perception is a matter of standing in relation to objects, if perceptual content is understood in terms of potentially gappy *de re* modes of presentation. By understanding perception as fundamentally relational, we can account for perception being representational without these representations figuring as epistemic intermediaries thereby fixing perceptual consciousness.

So in contrast to pure relational accounts, the suggested way of thinking about perceptual content can explain how veridical and hallucinatory experiences may be phenomenologically indistinguishable. Both experiences have the same content schema. This content schema grounds the phenomenal character of the experience. But in contrast to pure intentionalist accounts, the suggestion can explain the differences between the two experiences. In the case of a veridical experience the content schema is saturated by an object, while the content schema in a hallucinatory experience is gappy.

## BIBLIOGRAPHY

- Allen, Keith forthcoming: "The Mind-Independence of Colour". *European Journal of Philosophy*.
- Alston, William 1999: "Back to the Theory of Appearing". *Noûs Supplement: Philosophical Perspectives*, 13, pp. 181-203.
- Alston, William 2002: "Sellars and the 'Myth of the Given'". *Philosophy and Phenomenological Research*, 65, pp. 69-86.
- Anscombe, G.E.M. 1957: *Intention*. Cambridge, MA: Harvard University Press.
- Aristotle: *De Anima*. Translated by J.A. Smith. In *The Complete Works of Aristotle*. J. Barnes (ed), Princeton: Princeton University Press, 1984, pp. 641-692.
- Bach, Kent 1997: "Searle Against the World". manuscript.
- Baldwin, Thomas 1998: "Objectivity, Causality, and Agency". In *The Body and the Self*. José Luis Bermúdez (ed). Cambridge, MA: The MIT Press, pp. 107-125.
- Baldwin, Thomas 2003: "Perception and Agency". In *Agency and Self-Awareness*. Naomi Eilan and Johannes Roessler (eds). Oxford: Oxford University Press, pp. 188-200.
- Baldwin, Thomas 2004: Introduction to *Merleau-Ponty: The World of Perception*. London: Routledge, pp. 1-33.
- Bermúdez, José Luis 2000a: "Naturalized Sense Data". *Philosophy and Phenomenological Research*, 61, pp. 353-74.
- Bermúdez, José Luis 2000b: "Personal and Sub-Personal: A Difference without a Distinction". *Philosophical Explorations*, 3, pp. 63-82.
- Block, Ned 1990: "Inverted Earth". *Philosophical Perspectives*, 4, pp. 53-79.
- Block, Ned 2003: "Mental Paint". In *Reflections and Replies: Essays on the Philosophy of Tyler Burge*. Martin Hahn and Bjorn Ramberg (eds). Cambridge, MA: MIT Press.

- Block, Ned 2005: "Review of Alva Noë, *Action in Perception*". *The Journal of Philosophy*, 102, pp. 259-72.
- Brandom, Robert 1994: *Making It Explicit: Reasoning, Representing, and Discursive Commitment*. Cambridge, MA: Harvard University Press.
- Brandom, Robert 1995: "Knowledge and the Social Articulation of the Space of Reasons". *Philosophy and Phenomenological Research*, 55, pp. 895-908.
- Brandom, Robert 2002: "Non-inferential Knowledge, Perceptual Experience, and Secondary Qualities". In *Reading McDowell on Mind and World*. Nicholas Smith (ed). London & New York: Routledge, pp. 92-105.
- Braun, David 1993: "Empty names". *Noûs*, 27, pp. 449-469.
- Brewer, Bill 1992: "Self-Location and Agency". *Mind*, 101, pp. 17-34.
- Brewer, Bill 1999: *Perception and Reason*. Oxford: Clarendon Press.
- Brewer, Bill 2006: "Perception and Content". *European Journal of Philosophy*, 14, pp. 165-81.
- Brewer, Bill forthcoming: *Perception and its Objects*. Oxford: Oxford University Press.
- Broadie, Sarah 1987: "Nature and Craft in Aristotelian Teleology". In *Biologie, Logique, et Métaphysique chez Aristote*. Pierre Pellegrin and Daniel Devereux (eds). Paris: Editions du C.N.R.S., pp. 389-403.
- Burge, Tyler 1986: "Individualism and Psychology". *Philosophical Review*, 45, pp. 3-45.
- Burge, Tyler 1991: "Vision and Intentional Content". In *John Searle and His Critics*. Ernest LePore and Robert van Gulick (eds). Oxford: Blackwell, pp. 195-214.
- Byrne, Alex 2001: "Intentionalism Defended". *Philosophical Review*, 110, pp. 199-240.
- Byrne, Alex and David Hilbert 2003: "Color Realism and Color Science". *Behavioral and Brain Sciences*, 26, pp. 3-21.
- Byrne, Alex 2004: "Perception and Conceptual Content". In *Contemporary Debates in Epistemology*. Ernest Sosa and Matthias Steup (eds). Oxford: Blackwell, pp. 113-a26.
- Byrne, Alex, and David Hilbert 2007: "Color Primitivism". In *Perception and the Status of Secondary Qualities*. Ralph Schumacher (ed). Dordrecht: Kluwer.

- Campbell, John 1993: "A Simple View of Colour". In *Reality: Representation and Projection*. John Haldane and Crispin Wright (eds). Oxford: Oxford University Press, pp. 257-268.
- Campbell, John 1994: *Past, Space and Self*. Cambridge MA: The MIT Press.
- Campbell, John 2002: *Reference and Consciousness*. Oxford: Clarendon Press.
- Carr, David 1979: "The Logic of Knowing How and Ability". *Mind*, 88, pp. 394-409.
- Cassam, Quassim 1997: *Self and World*. Oxford: Clarendon Press.
- Chalmers, David 1996: *The Conscious Mind: In Search of a Fundamental Theory*. Oxford: Oxford University Press.
- Chalmers, David 2002: "The Components of Content". In *Philosophy of Mind: Classical and Contemporary Readings*. David Chalmers (ed). Oxford: Oxford University Press.
- Chalmers, David 2004: "The Representational Character of Experience". In *The Future for Philosophy*. Brian Leiter (ed). Oxford: Oxford University Press, pp. 153-181.
- Chalmers, David 2006: "Perception and the Fall from Eden". In *Perceptual Experience*. Tamar Gendler and John Hawthorne (eds). Oxford: Oxford University Press, pp. 49-125.
- Chisholm, Roderick 1957: *Perceiving: A Philosophical Study*. Ithaca: Cornell University Press.
- Clark, Andy 2001: "Visual Experience and Motor Action: Are the Bonds too Tight?". *Philosophical Review*, 110, pp. 445-519.
- Cohen, Jonathan 2004: "Color Properties and Color Ascriptions: A Relationalist Manifesto". *Philosophical Review*, 113, pp. 451-506.
- Crane, Tim 2003: "The Intentional Structure of Consciousness". In *Consciousness: New Philosophical Perspectives*. Aleksander Jokic and Quentin Smith (eds). Oxford: Oxford University Press, pp. 33-56.
- Crane, Tim 2006: "Is There a Perceptual Relation?" In *Perceptual Experience*. Tamar Gendler and John Hawthorne (eds). Oxford: Clarendon Press, pp. 126-146.
- Davidson, Donald 1974: "On the Very Idea of a Conceptual Scheme". In his *Inquiries into Truth and Interpretation*. Oxford: Clarendon Press 1984, pp. 183-198.
- Davies, Martin 1992: "Perceptual Content and Local Supervenience". *Proceedings of the Aristotelian Society*, 92, pp. 21-45.



- Davies, Martin 1997: "Externalism and Experience". In *The Nature of Consciousness: Philosophical Debates*. Ned Block, Owen Flanagan, and Güven Güzeldere (eds). Cambridge, MA: MIT Press, pp. 309-27.
- Davies, Martin 2000: "Interaction without Reduction: The Relationship between Personal and Sub-Personal Levels of Description". *Mind and Society*, 2, pp. 87-105.
- deVries, Willem and Tim Triplett 2000: *Knowledge, Mind, and the Given: Reading Wilfrid Sellars's "Empiricism and the Philosophy of Mind"*. Cambridge, MA: Hackett Publishing.
- Dretske, Fred 1995: *Naturalizing the Mind*. Cambridge, MA: MIT Press.
- Egan, Andy 2006: "Appearance Properties?" *Noûs*, 40, pp. 495-521.
- Evans, Gareth 1980: "Things without the Mind". In *Collected Papers*. John McDowell (ed). Oxford: Oxford University Press, 1985, pp. 248-290.
- Evans, Gareth 1982: *The Varieties of Reference*. ed. by John McDowell. Oxford: Clarendon Press.
- Gibson, James 1950: *The Perception of the Visual World*. Boston: Houghton Mifflin.
- Gibson, James 1979: *The Ecological Approach to Visual Perception*. Boston: Houghton Mifflin.
- Ginet, Carl 1975: *Knowledge, Perception, and Memory*. Boston: Reidel.
- Goldman, Alvin 1976: "Discrimination and Perceptual Knowledge". *Journal of Philosophy*, 73, pp. 771-91.
- Goldman, Alvin 1986: *Epistemology and Cognition*. Cambridge, MA: Harvard University Press.
- Goodale, Melvyn and Richard Andersen 1998: "Frames of Reference for Perception and Action in the Human Visual System". *Neuroscience and Biobehavioral Reviews*, 22, pp. 161-72.
- Grush, Rick 2001: "Self, World and Space: On the Meaning and Mechanisms of Egocentric and Allocentric Spatial Representation". *Brain and Mind*, 1, pp. 59-92.
- Grush, Rick 2004: "The Emulation Theory of Representation: Motor control, Imagery, and Perception". *Behavioral and Brain Sciences*, 27, pp. 377-442.
- Grush, Rick forthcoming: "Berkeley and the Spatiality of Vision". *Journal of the History of Philosophy*.

- Gupta, Anil 1999: "Meaning and Misconceptions". In *Language, Logic, and Concepts: Essays in Honor of John Macnamara*. Ray Jackendoff, Paul Bloom, and Karen Wynn (eds). Cambridge, MA: MIT Press, pp. 15-41.
- Gupta, Anil 2006a: *Empiricism and Experience*. Oxford: Oxford University Press.
- Gupta, Anil 2006b: "Experience and Knowledge". In *Perceptual Experience*. Tamar Gendler and John Hawthorne (eds). Oxford: Oxford University Press, pp. 181-204.
- Hardin, C. L. 1988: *Color for Philosophers: Unweaving the Rainbow*. Indianapolis: Hackett.
- Harman, Gil 1990: "The Intrinsic Quality of Experience". *Philosophical Perspectives*, 4, James Tomberlin (ed). Northridge: Ridgeview Publishing Company, pp. 31-52.
- Hartfield, Gary 1990: *The Natural and the Normative: Theories of Spatial Perception from Kant to Helmholtz*. Cambridge, MA: The MIT Press.
- Heck, Richard 2000: "Nonconceptual Content and the 'Space of Reasons'". *Philosophical Review*, 109, pp. 483-523.
- Hellie, Benj forthcoming: "Phenomenal Contact". *Philosophical Perspectives*.
- Hinton, J. M. 1973: *Experiences*. Oxford: Clarendon Press.
- Hiraki, Kazuo; Steven Phillips et al. 1998: "From Egocentric to Allocentric Spatial Behavior: A Computational Model of Spatial Development". *Adaptive Behavior*, 6, pp. 371-91.
- Horgan, Terence and John Tienson 2002: "The Intentionality of Phenomenology and the Phenomenology of Intentionality". In *Philosophy of Mind: Classical and Contemporary Readings*. David Chalmers (ed). Oxford: Oxford University Press.
- Hornsby, Jennifer 2000: "Personal and Subpersonal: A Defense of Dennett's Early Distinction". *Philosophical Explorations*, 1, pp. 6-24.
- Hornsby, Jennifer 2004: "Semantic Knowledge and Practical Knowledge". *Supplement to the Proceedings of the Aristotelian Society*, 79, pp. 107-30.
- Hume, David 1777: "An Enquiry Concerning Human Understanding". In *Enquiries Concerning Human Understanding and Concerning the Principles of Morals*. L. A. Selby Bigge and P. H. Nidditch (eds). Oxford: Clarendon Press; 1975.
- Hurley, S.L. 1998: *Consciousness in Action*. Cambridge, MA: Harvard University Press.

- Iachini, Tina and Gennaro Ruggiero 2006: "Egocentric and Allocentric Spatial Frames of Reference: A Direct Measure". *Cognitive Processing*, 7, pp. 126-127.
- Jackson, Frank 1977: *Perception*. Cambridge: Cambridge University Press.
- Jackson, Frank 1998: "Mind, Method and Conditionals: Selected Essays". *International Journal of Philosophical Studies*, 8, pp. 259-261.
- Jackson, Frank unpublished: *Experience and Representation*.
- Johnston, Mark 2004: "The Obscure Object of Hallucination". *Philosophical Studies*, 103, pp. 113-83.
- Kant, Immanuel: 1781: *Kritik der reinen Vernunft*. Frankfurt am Main: Suhrkamp, 1974. Translated as *Critique of Pure Reason*, trans. Norman Kemp Smith. New York: St. Martin's Press 1965.
- Kant, Immanuel 1800: *Jäsche Logik*. ed. by J.B. Jäsche. "The Jäsche Logic" in J. Michael Young (ed. and trans.): *Lectures on Logic*. Cambridge: Cambridge University Press, 1992, pp. 521-640.
- Kelly, Sean 2001: "The Non-Conceptual Content of Perceptual Experience: Situation-dependence and Fineness of Grain". *Philosophy and Phenomenological Research*, 62, pp. 601-608.
- Kelly, Sean 2004: "Seeing Things in Merleau-Ponty". In *Cambridge Companion to Merleau-Ponty*. Carman Taylor and Mark Hansen (eds). Cambridge: Cambridge University Press, pp. 74-110.
- Kelly, Sean, unpublished: "The Logic of Motor Intentionality".
- Kim, Jaegwon 1990: "Supervenience as a Philosophical Concept". *Metaphilosophy*, 21, pp. 1-27.
- Klatzky, Roberta 1998: "Allocentric and Egocentric Spatial Representations: Definitions, Distinctions, and Interconnections". In *Spatial Cognition: An Interdisciplinary Approach to Representing and Processing Spatial Knowledge*. Christian Freksa et al., (eds). Berlin: Springer, pp. 1-17.
- Kriegel, Uriah 2002: "Phenomenal Content". *Erkenntnis*, 57, pp. 175-98.
- Kriegel, Uriah 2004: "For Your Eyes Only: Perception and the Realm of Appearances". manuscript.

- Langsam, Harold 1997: "The Theory of Appearing Defended". *Philosophical Studies*, 87, pp. 33–59.
- Levine, Joseph 2001: *Purple Haze: The Puzzle of Consciousness*. Oxford: Oxford University Press.
- Lewis, David 1995: "Should a Materialist Believe in Qualia?" *Australian Journal of Philosophy*, 73, pp. 140-44.
- Lycan, William 1995: "Layered Perceptual Representation", and "Replies to Tomberlin, Tye, Stalnaker and Block". *Philosophical Issues*, 7, Enrique Villanueva (ed). Atascadero: Ridgeview Publishing, pp. 81-100, 127-42.
- Lycan, William 1996: *Consciousness and Experience*. Cambridge, MA: MIT Press.
- Marr, David 1982: *Vision: A Computational Investigation into the Human Representation and Processing of Visual Information*. San Francisco: Freeman Press.
- Martin, M. G. F. 1997: "The Reality of Appearances". *Thought and Ontology*. Mark Sainsbury (ed). Milan: Franco Angeli, pp. 81–106.
- Martin, M. G. F. 2003: "The Limits of Self-Awareness". *Philosophical Studies*, 103, pp. 37–89.
- Martin, M. G. F. forthcoming: *Uncovering Appearances*.
- Matthen, Mohan 1988: "Biological Functions and Perceptual Content". *Journal of Philosophy*, 85, pp. 5-27.
- Matthen, Mohan 2005: *Seeing, Doing, and Knowing: A Philosophical Theory of Sense Perception*. Oxford: Clarendon Press.
- Matthen, Mohan 2006: "Review of Alva Noë, *Action in Perception*". *Mind*, 115, pp. 1160-6.
- McDowell, John 1977: "On the Sense and Reference of a Proper Name". *Mind*, 86, pp. 159-85.
- McDowell, John 1984: "De Re Senses". *The Philosophical Quarterly*, 34, pp. 283-94.
- McDowell, John 1991: "Intentionality De Re". In *John Searle and His Critics*. Ernest LePore and Robert van Gulick (eds). Oxford: Blackwell, pp. 215-25.
- McDowell, John 1994: *Mind and World*. Cambridge, MA: Harvard University Press.
- McDowell, John 1995: "Knowledge and the Internal". *Philosophy and Phenomenological Research*, 55, pp. 97-105.

- McDowell, John 1998: "Woodbridge Lectures: 'Having the World in View: Sellars, Kant, and Intentionality'". *Journal of Philosophy*, 95, pp. 431- 491.
- McDowell, John 2002: "Knowledge and the Internal Revisited". *Philosophy and Phenomenological Research*, 66, pp. 877-893.
- McLaughlin, Brian 2003: "Color, Consciousness, and Color Consciousness". In *New Essays on Consciousness*. Aleksander Jokic and Quentin Smith (eds). Oxford: Oxford University Press, pp. 97-154.
- Merleau-Ponty, Maurice 1945: *Phenomenology of Perception*. translated by Colin Smith, New York: Routledge, 1962.
- Mill, John Stuart 1865: *Examination of Sir William Hamilton's Philosophy*. London: Longmans.
- Mumford, Stephen 1998: *Dispositions*. Oxford: Oxford University Press.
- Mumford, Stephen 1999: "Intentionality and the Physical: A New Theory of Disposition Ascription". *The Philosophical Quarterly*, 195, pp. 215-25.
- Nickel, Bernhard forthcoming: "Against Intentionalism". *Philosophical Studies*.
- Noë, Alva 2004: *Action in Perception*. Cambridge, MA: MIT Press.
- Noë, Alva forthcoming: "Real Presence". *Philosophical Topics*.
- O'Keefe, Brian et al. 1998: "Knowing Where, and Getting There: A Human Navigation Network". *Science*, 280, pp. 921-924.
- Paillard, Jacques 1991: "Motor and Representational Framing of Space". In his *Brain and Space*. Oxford: Oxford University Press, pp. 163-82.
- Peacocke, Christopher 1983: *Sense and Content: Experience, Thought, and Their Relations*. Oxford: Clarendon Press.
- Peacocke, Christopher 1984: "Colour Concepts and Colour Experience". *Synthese*, 58, pp. 365-381.
- Peacocke, Christopher 1985: "Imagination, Experience and Possibility: A Berkeleyan View Defended". In *Essays on Berkeley*. John Foster and Howard Robinson (eds). Oxford: Clarendon Press.
- Peacocke, Christopher 1992: *A Study of Concepts*. Cambridge, MA: MIT Press.

- Peacocke, Christopher 1999: *Being Known*. Oxford: Clarendon Press.
- Peacocke, Christopher 2001: "Does Perception have a Nonconceptual Content?" *The Journal of Philosophy*, 98, pp. 239-64.
- Peacocke, Christopher forthcoming: "Sensational Properties: Theses to Accept and Theses to Reject". *Revue Internationale de Philosophie*, in a special issue on the Philosophy of Mind, ed. J. Proust.
- Price, H. H. 1932: *Perception*. London: Methuen, 1950.
- Prinz, Jesse 2002: *Furnishing the Mind*. Cambridge, MA: MIT Press.
- Roessler, Johannes 2003: "Intentional Action and Self-Awareness". In *Agency and Self-Awareness*. Naomi Eilan and Johannes Roessler (eds). Oxford: Oxford University Press, pp. 383-406.
- Rosenberg, Jay 2000: "Perception and the Inner Sense: A Problem about Direct Awareness". *Philosophical Studies*, 101, pp. 143-160.
- Rosenberg, Jay 2002: *Thinking about Knowing*. Oxford: Oxford University Press.
- Rosenberg, Jay 2003: "Sellarsian Seeing: In Search of Perceptual Authority". In *Perception*. Ralph Schumacher (ed). Paderborn: Mentis, pp. 262-285.
- Ryle, Gilbert 1949: *The Concept of Mind*. Chicago: The University of Chicago Press.
- Searle, John 1983: *Intentionality: An Essay in the Philosophy of Mind*. Cambridge: Cambridge University Press.
- Seibt, Johanna 1990: *Properties as Processes: A Synoptic Study of Wilfrid Sellars' Nominalism*. Atascadero: Ridgeview Publishing Company.
- Sellars, W. 1950: "Quotation Marks, Sentences and Propositions". *Philosophy and Phenomenological Research*, 10, pp. 515-525.
- Sellars, Wilfrid 1952: "Particulars". In his *Science, Perception and Reality*. Atascadero: Ridgeview Publishing Company 1963, pp. 282-297.
- Sellars, Wilfrid 1956: "Empiricism and the Philosophy of Mind". In his *Science, Perception and Reality*. Atascadero: Ridgeview Publishing Company 1963, pp. 127-196; and as a book with an introduction by R. Rorty and study guide by R. Brandom. Cambridge, MA: Harvard University Press 1997.

- Sellars, Wilfrid 1960: "Being and Being Known". In his *Science, Perception and Reality*. Atascadero: Ridgeview Publishing Company 1963, pp. 41-59.
- Sellars, Wilfrid 1962a: "Naming and Saying". In his *Science, Perception and Reality*. Atascadero: Ridgeview Publishing Company 1963, pp. 225-246.
- Sellars, Wilfrid 1962b: "Truth and Correspondence". *Journal of Philosophy*, 59, pp. 29-56.
- Sellars, Wilfrid 1963a: "Abstract Entities". In his *Philosophical Perspectives: Metaphysics and Epistemology*. Atascadero: Ridgeview Publishing Company 1977, pp. 49-89.
- Sellars, Wilfrid 1967a: *Science and Metaphysics*. Atascadero: Ridgeview Publishing Company.
- Sellars, Wilfrid 1967b: "Some Remarks on Kant's Theory of Experience". *Journal of Philosophy*, 64, pp. 633-47.
- Sellars, Wilfrid 1977b: "Some Reflections on Perceptual Consciousness". In *Selected Studies in Phenomenology and Existential Philosophy*. R. Bruzina, B. Wilshire (eds). The Hague, pp. 169-185.
- Sellars, Wilfrid 1979: *Naturalism and Ontology*. Atascadero: Ridgeview Publishing Company.
- Sellars, Wilfrid 1983: "Towards a Theory of Predication". In *How Things Are*. J. Bogen, J. McGuire (eds). Dordrecht: D. Reidel Publishing Company, 1983, pp. 281-318.
- Shapiro, Larry 2004: *The Mind Incarnate*. Cambridge, MA: The MIT Press.
- Shoemaker, Sydney 1982: "The Inverted Spectrum". *Journal of Philosophy*, 79, pp. 357-81.
- Shoemaker, Sydney 1994: "Phenomenal Character". *Noûs*, 28, pp. 21-38.
- Shoemaker, Sydney 2000: "Phenomenal Character Revisited". *Philosophy and Phenomenological Research*, 60, pp. 465-7.
- Shoemaker, Sydney 2001: "Introspection and Phenomenal Character". *Philosophical Topics*, 28, pp. 247-273.
- Shoemaker, Sydney 2003: "Content, Character, and Color". *Philosophical Issues*, 13, pp. 253-278.
- Shoemaker, Sydney 2006: "On the Way Things Appear". In *Perceptual Experience*. Tamar Gendler and John Hawthorne (eds). Oxford: Clarendon Press, pp. 461-480.

- Siegel, Susanna 2004: "Indiscriminability and the Phenomenal". *Philosophical Studies*, 120, pp. 90–112.
- Siegel, Susanna 2005: "The Contents of Perception". *The Stanford Encyclopedia of Philosophy*. Edward Zalta (ed).
- Siewart, Charles 1998: *The Significance of Consciousness*. Princeton: Princeton University Press.
- Smith, A.D. 2002: *The Problem of Perception*. Cambridge, MA: Harvard University Press.
- Snowdon, Paul 1981: "Perception, Vision and Causation". *Proceedings of the Aristotelian Society*, 81, pp. 175-192.
- Snowdon, Paul 1992: "How to Interpret 'Direct Perception'". In *The Contents of Experience: Essays on Perception*. Tim Crane (ed). Cambridge: Cambridge University Press.
- Soteriou, Matthew 2000: "The Particularity of Visual Experience". *European Journal of Philosophy*, 8, pp. 173-89.
- Stanley, Jason and Timothy Williamson 2001: "Knowing How". *The Journal of Philosophy*, 98, pp. 411-44.
- Strawson, P.F. 1959: *Individuals: An Essay in Descriptive Metaphysics*. London: Routledge.
- Strawson, P.F. 1966: *The Bounds of Sense: An Essay on Kant's Critique of Pure Reason*. London: Routledge.
- Sturgeon, Scott 1998: "Visual Experience". *Proceedings of the Aristotelian Society*, 98, pp. 179-200.
- Sturgeon, Scott 2000: *Matter of Mind: Consciousness, Reason, and Nature*. London: Routledge.
- Taylor, Charles 1964: *The Explanation of Behavior*. London: Routledge.
- Taylor, Charles 1989: "Embodied Agency". In *Merleau-Ponty: Critical Essays*. Henry Pietersma (ed). Washington: University Press of America, pp. 1-21.
- Thau, Michael 2002: *Consciousness and Cognition*. Oxford: Oxford University Press.
- Thompson, Evan, and Francisco Varela 2001: "Radical Embodiment: Neural Dynamics and Consciousness". *Trends in Cognitive Sciences*, 5, pp. 418-425.



- Thompson, Evan 1995: *Colour Vision: A Study in Cognitive Science and the Philosophy of Perception*. New York: Routledge.
- Thompson, Evan 2007: *Mind in Life: Biology, Phenomenology, and the Sciences of Mind*. Cambridge, MA: Harvard University Press.
- Thompson, Manley 1972: "Singular Terms and Intuitions in Kant". *The Review of Metaphysics*, 26, pp. 314 – 343.
- Thompson, Michael 2004: "Apprehending Human Form". In *Modern Moral Philosophy*. Anthony O'Hear (ed). Cambridge: Cambridge University Press, pp. 47-74.
- Travis, Charles 2004: "Silence of the Senses". *Mind*, 113, pp. 57-94.
- Tye, Michael 1995a: *Ten Problems of Consciousness: A Representational Theory of the Phenomenal Mind*. Cambridge, MA: MIT Press.
- Tye, Michael 1995b: "Perceptual Experience is a Many-Layered Thing". *Philosophical Issues*, 7, Enrique Villanueva (ed). Atascadero: Ridgeview Publishing, pp. 117-126.
- Tye, Michael 1995c: "A Representational Theory of Pains and Their Phenomenal Character". *Philosophical Perspectives*, 9, pp. 223-39.
- Tye, Michael 2000: *Consciousness, Color, and Content*. Cambridge, MA: MIT Press.
- Weatherson, Brian 2006: "Intrinsic vs. Extrinsic Properties". *The Stanford Encyclopedia of Philosophy*. Edward Zalta (ed).
- Williams, Bernard 1966: "Imagination and the Self". In his *Problems of the Self*. Cambridge: Cambridge University Press, 1973, pp. 26-45.
- Williamson, Timothy 1990: *Identity and Discrimination*. Oxford: Blackwell.