

**The Role and Manifestation of the Causative Morpheme ‘-chi’  
In Cuzco Quechua**

by

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## **An Abstract**

Causatives are a valence increasing operation that adds a causer argument which acts upon causee to perform an event. However, as Dixon (2000) states, it is not enough to merely say that causatives increase valence. There are other morpho-syntactic considerations which must be examined, as well as those typological and semantic. Causativeness can be expressed in many different ways; morphological processes, periphrastic construction, etc. In Quechua, the bound morpheme ‘-chi’ is added for causativization. While there has been much analysis of Quechua, little has been produced on the role and manifestation of the causative, and even less has been done on the causative in the Cuzco dialect of Quechua (CQ). It is the intent of this paper to present a systematic analysis of causation in CQ. I explore the morpho-syntactic implications of the ‘-chi’, as well as the typological and semantic considerations. I analyze and discuss the effects of causativeness on intransitive, transitive and ditransitive verbs, based on Hale & Keyser (1993) and Baker (1988). I also examined the use of ‘-chi’ in double causative and the impersonal construction of CQ. Furthermore, I classify CQ’s causative in a typology based on Song (1996). Lastly, I provided an in-depth analysis of the semantic implications of the causative based on Dixon (2000). From these analyses, I have compiled an in-depth look investigation of the role and manifestation of the causative in CQ. This work is motivated by the lack of critical analyses produced in regards to these less investigated areas of CQ.

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### Abbreviations

1	1 <sup>st</sup> person	INF	Infinitive
2	2 <sup>nd</sup> person	INST	Instrumental
3	3 <sup>rd</sup> person	LOC	Locative
*	ungrammatical sentence	NEG	Negative
?	awkward utterance	NOM	Nominalizer
(caus)	inherent causation	O	Object
+CAUS	external causation = ‘-chi’	PASS	Passive
ABL	Ablative	PAST	Past Tense
ACC	Accusative	pl	Plural
AUG	Augmentative	PRES	Present
BEN	Benefactive	PROG	Progressive
CISL	Cislocative	PURP	Purposive
DAT	Dative	REF	Reflexive
EVID	Evidential	s	Singular
FUT	Future	S	Subject
GEN	Genitive	TAM	Tense-Aspect-Mood
IMP	Imperative	TOP	Topicalizer
INDIC	Indicative	VAL	Validator

*“For the past three decades or so, the causative construction has truly been one of the most recurrent research topics studied by linguists of diverse theoretical persuasions. This is not entirely surprising in light of the fact analysis of the causative calls for a careful synthesis of morphology, syntax, semantic and even pragmatics.”*

- *Jae Jung Song, 1996*

*“Go upstairs and clean your room!”* - *My mother*

*“Make me!”* - *My little brother*

## **0. INTRODUCTION.**

It is with this motivation that I present my paper on causation in the Cuzco variety of Quechua. Causation is a valence increasing operation that adds an argument to a sentence. When an event occurs, causation can be added, and when added it is assigned responsibility for the event taking place. The subject responsible for the action taking place is referred to as the causer. While every language has the ability to assign causation to its utterances, not every language expresses causation in the same manner. With this in mind, it is not sufficient to merely describe a language as possessing a causative. It is obvious that all causative constructions are valence increasing operations, adding an argument to an underlying clause (Dixon 1994, 2000; Jong, 1996), but the role and manifestation can vary greatly in languages.

There are several possible manifestations of causation (Dixon & Aikhenvald, 2000; Song, 1996). Some languages express causation through two verbs in one predicate. These ‘serial verb constructions’ place two verbs in the same clause with both verbs taking the same marking for Tense, Aspect and Mood (TAM), evidentiality and polarity. Languages with this type of causation are the Austronesian language Paamese and Yoruba (Crowley, 1987). Other languages use periphrastic constructions, generally with two verbs in distinct clauses. Different languages have different roles for these clauses. Some languages, like Macushi, mark the causee for its

function in the subordinate clause, while others mark it in the main clause, as in English. Still others mark both clauses as in Canela-Kraho (Dixon, 2000).

Another method of causation is the lexical causative. These do not involve separate causative verbs, like *make* in English. They also eschew morphological processes, which will be explained below. These lexical causatives can have either one or two lexemes. An example of single lexeme can be seen in English, with *trip*, *spill* and *drop*. Yimas is an example of a two lexeme language, where ‘mal-’ means *to die* and ‘tu-’ is *to kill* (Foley, 1991).

Finally, and of prime importance to this work, there are morphological processes for expressing causation. There is internal change in Lithuanian, consonant repetition in Arabic, vowel lengthening in Kashmiri, tone change in Lahu and reduplication in Javanese. Other uses of morphological processes, such as prefixation in Ahmaric, suffixation in K’ichi and circumfixation in Georgian, are quite common. Quechua is one of these latter languages with its causation produced through affixation, specifically suffixation. When a speaker of Quechua wishes to causativize an event, ‘-chi’ adheres to the end of the root of the verb. It is the morpheme ‘-*chi*’ that will be examined in this paper.

There are also various typological considerations for causatives. With the various roles and manifestations of Quechua, establishing a typology is necessary. Often based on the semantic meaning the causative process adds, many systems have been suggested. Considerations for classification include volition, directness, control and intention. Others concentrate on verbal affectedness, including causative application to change of state verbs and/or action verbs. Still others are based on causation and transitivity, among other criteria.

**0.1. GOALS.** Quechua is an excellent example of a language where causation is expressed overtly in an agglutinative manner. The agglutinative nature manifests itself in the rich morphological processes verb roots can undergo. This process allows for the affixation of bound morphemes, including the causative morpheme ‘-chi’. The inherent overtness of the causative in Quechua allows the data to be collected and analyzed easily.

The intent of this work is to compare and contrast the various ways causatives are manifested in Quechua. First, this description will include their intransitive, transitive and ditransitive realizations and their effect on valency and case. This paper will attempt to provide a systematization of the morpho-syntactic realization of causatives in Quechua. I explain the placement of Cuzco in the typology of causatives as well as explore its semantic characteristics. Also included in this work will be an examination of the double causative found in Quechua. Lastly, I will explain the typological properties of causatives in Quechua.

**0.1.2. Causativity as a Valence Changing Operation.** As I have previously indicated, I provide an analysis of causativization of intransitive verbs. I will describe the valence operations and provide syntactic descriptions regarding different semantic classes of verbs. I will provide the same analysis for the transitive and ditransitive realizations. Also included in this investigation will be an examination of the possibility of double causatives in Quechua, as well as the aberrant behavior of verbs of feeling which do not appear to increase in valency with the addition of ‘-chi’.

**0.1.3. Typology and Semantics.** First I discuss the placement of Cuzco in the typology of causatives as well as explore some semantic characteristics. Based on Dixon’s classification system (described below), I will explore the typology of Cuzco causatives. The appearance of a morphologically overt suffix is obvious, but I will also examine the possibility of periphrastic causatives in Cuzco. I also attempt to determine the semantic range of causativeness in Cuzco Quechua.

## **0.2. QUECHUA.**

According to Ethnologue (Gordon, 2005), Cuzco Quechua is one of 46 distinct varieties of the larger family, Quechua. There are varying rates of mutual intelligibility among these varieties, with the degree of intelligibility naturally being higher among adjacent dialects, and very low among non-adjacent dialects. Cuzco Quechua, which I will refer to as CQ from here on in (when

referring to another variety, I will mention it by name, i.e. Imambura, Wanka, etc.), is spoken in the area of southern Peru around the cities of Cuzco, Puno and Arequipa, along with some areas of northwestern Bolivia. While there are over 4 million speakers of various forms of Quechua in Peru according to Gordon (2005), CQ is spoken by over 1.5 million speakers in the southern regions.

Quechua is one of the more widely American Indian languages spoken. In fact, it is one of the official languages of Peru. However, while this does give CQ speakers advantages over speakers of other American Indian languages, there is still a push for children of CQ speakers to learn Spanish. In rural areas where CQ is spoken, up to 65% percent of CQ speakers are bilingual. However, in urban areas, this increases to a 90%-95% rate of bilingualism (Gordon, 2005).

Unlike many other American Indian languages, there are print materials available in CQ. There are grammars and dictionaries available, and the bible has been translated. There is a comparatively large body of poetry and fiction work in CQ. There are also radio and television programs. However, for those who hold CQ as their native language, there is only a 1%-5% literacy rate in their native tongue. This is compared with a 62% literacy rate in Spanish, their second language (Gordon, 2005).

Some main points of interest for linguists and language learners are that the phonological system of CQ consists of 26 consonants along with a three-vowel system. In addition, there is a very unusual category of ejectives and aspirated stops, not found in Spanish. Also, CQ is a highly agglutinative language which makes use of rich transformational derivational processes. Furthermore, like most agglutinative languages, it is highly segmentable. Words containing long series of suffixes can be broken down and examined individually for meaning. Orders of suffixes are predictable, as well are case markers and possessives. It shows a high degree of invariance, making it a near model of regularity (Webber, 1989). While some languages are SOV or SVO, CQ has an extensive case marking and bipersonal conjugation system which allows for a very liberal word-ordering model. However, it must be noted that most examples from academic

texts tend to be SOV. Examples of the free order in CQ, provided by Cerron-Palomino (1994: 145) can be seen below.

- 1) The dog bit the horse.  
 Alqo-qa-n kawallu-ta kani-n  
 Dog-TOP-VAL horse-Acc bite-3sg
- The horse the dog bit  
 Kawallu-ta-n alqo-qa kani-n  
 Horse-ACC-VAL dog-TOP bite-3sg
- Bit the horse the dog.  
 Kani-n-mi kawallu-ta alqu-qa  
 Bite-3sg-VAL horse-ACC dog-TOP.

While the rich morphological nature of CQ allows the aforementioned variation, for the sake of convenience, the standard SOV order will be used for examples provided herein.

**0.3. Previous Analyses.** There has been quite a bit of work done on the various dialects of CQ, though not all with the same scope or purpose. The vast majority of information on causatives in CQ is found in grammars. These analyses do not focus of the morpho-syntax of the causative. The most common description consists of the statement that causation can turn an intransitive verb into a transitive verb, and a transitive verb into a ditransitive verb. Below is a sample of the previous research done on causatives in CQ. The relevance of this work is that it provides examples of the type of analysis being done on Cuzco Quechua.

The study of CQ provides little data on causatives in Quechua. Cusihuamán's *Gramática Quechua: Cuzco-Collao* (1976) provides does not concentrate his examination on causatives. In his brief description of the causative in CQ, he informs us that '-chi' 'denotes that the subject is the agent that motivates the realization of the action (my translation),' (Cusihuaman, 1976:

211).<sup>1</sup> This analysis is typical of the amount of attention that has been given to the causative in CQ.

Alvino and Fernandez (2000) mention ‘-chi’ only as a morpheme that acts as a “verb that behaves as two verbs by means of two morphemes” (my translation).<sup>2</sup> They then list a few examples, such as;

- |    |               |                |               |                                |
|----|---------------|----------------|---------------|--------------------------------|
| 2) | muna-chi-y    | hacer querer   | to make want  | (Alvino & Fernandez, 2000; 65) |
|    | asi-chi-y     | hacer reir     | to make laugh |                                |
|    | llank’a-chi-y | hacer trabajar | to make work  |                                |

This is the extent of their exposition of causatives in Quechua. Unlike Cusihuamán, they do not establish valence increase as an effect of causation.

Llamoca (1990) explains the causative ‘-chi’ as a particle. This particle has characteristics that, “in juxtaposition of the particle to the root, form new words” (my translation).<sup>3</sup> He specifies a little by stating that ‘-chi’ implies an ‘order’ and he provides one example, *asi-chi-y* means “hacer reir/ to make smile”. However, like most other grammars, there is little if any analysis. In the same vein, more recently Huarachi Revollo (2005) states that the causative ‘-chi’ indicates that the action of the verb is realized by another person. He provides two examples of this with the verbs, *puñu-chi-y* as “to make sleep” and *apa-chi-y* as “to send something.

However, it should be noted that not all analyses of causatives in CQ are limited. In *Pragmática y Gramática del Quechua Cuzqueño*, Calvo Pérez (1993) provides a comparatively more detailed account. In his study he provides a ‘causativeness paradigm’ which illustrates the causativity suffixes. He discusses ‘-ya’ which he designates as ‘processual’ and ‘-cha’, which

---

<sup>1</sup> “El causativo ‘-chi’ denota que el sujeto es el agente que motiva la realización de la acción.” (Cusihuaman, 1976; 211)

<sup>2</sup> “Un solo verbo actua por dos verbos, mediante el uso de dos morfemas.” (Alvino & Fernandez, 2000; 64)

<sup>3</sup> “...en la yuxtaposition de partículas a la raíz para formar nuevas palabras.” (Llamoca, 1990; 100)

he calls ‘factual’. He also includes an analysis of ‘-chi’, the suffix on which I will concentrate. Of interest is the fact that he designates two distinct ‘-chi’ morphemes. The first ‘-chi’ is what he calls a ‘complete causative’ creating a new agent role. The second causative ‘-chi’ is closer to the ‘-ya’ and ‘-cha’ causatives which contain an internal agent. He provides the following contrasting examples for illustrative purposes, shown in 8) on page 20. The suffix ‘-y’ verbalizes substantives through transpositional derivation.

Another example of research on causatives is that done by Cerrón-Palomino (1994). In his *Quechmara: Estructuras paralelas de las lenguas quechua y aymara*, Cerrón-Palomino provides, like Calvo-Pérez, a relatively more in-depth account. However, again like Calvo-Pérez, he does not go beyond the basic valence increasing capability of ‘-chi’. In his work he points out that intransitives become transitives and transitives become ditransitives. He also states the existence of a double causative in *yacha-chi-chi-*, which he translates as “to make or let someone tell something to someone” (my translation).<sup>4</sup>

This is only a representative sample of the information available on the causative in Quechua. It is this lack of expository analysis that has prompted me to attempt to provide a more detailed description of the role and manifestation of causatives in CQ. In none of the above sources is there any semantic or typological information. Also, there is no information regarding the various verb classes and, what if, any distinctive role ‘-chi’ plays with them. I intend to provide a description of verb classes to help address this apparent lacuna of information.

**0.4. Sources.** The sources of my elicitation come from two speakers native to the CQ speaking region of Peru. Ms. Salome Gutierrez, born in Antabamba and raised there until moving to Lima at the age of 14, has lived in Pittsburgh for years. She returns to Peru twice a year for business and pleasure, and still maintains close relations with family and friends living in Peru. Furthermore, Ms. Gutierrez has taught CQ at the University of Pittsburgh for years. Ms. Lucia Campos is a native of Puno, Peru and grew up bilingually in CQ and Spanish. She lived in and around Puno until the age of 35, when she moved to Phoenix, Arizona. She has lived in Phoenix

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<sup>4</sup> “hacer o dejar que alguien informe algo a alguien.” (Cerrón-Palomino, 1994; 121)



for 11 years and returns to Puno at least once a year. Importantly, she lives with her mother and aunt, with whom she speaks primarily CQ. However, she admits that since moving to the United States it has been difficult to use CQ to discuss things they connect with America. With these topics, they speak Spanish.

### 0.5. Terms and Grammatical Keys.

To facilitate the understanding of translations and glosses, I will include in this section some terms and key grammatical points. As mentioned above, while I will present the translations in SOV order, it will be accompanied by the rich morphological affixation for which CQ is known. I have included in this section a subject-verb paradigm, person directional morphemes, as well as a simplified affix ordering guide to facilitate longer, more complicated sentences. I have also included a list of abbreviations and their meanings, and where necessary, a brief explanation of their importance.

### 3) SUBJECT-VERB AGREEMENT

		<b>Simple Present</b>			
		<b>Singular</b>	<b>Plural</b>		
<b>1<sup>st</sup></b>	<i>I sing</i>	taki-ni	<b>1<sup>st</sup> (excl.)</b> <i>we sing (not you)</i>	taki-yku	
			<b>1<sup>st</sup> (Incl.)</b> <i>we sing (w/you)</i>	taki-nchis	
<b>2<sup>nd</sup></b>	<i>you sing</i>	taki-nki	<i>you (pl.) sing</i>	taki-nkichis	
<b>3<sup>rd</sup></b>	<i>he/she sings</i>	taki-n	<i>they sing</i>	taki-nku	
		<b>Simple Past – “-ra”</b>			
		<b>Singular</b>	<b>Plural</b>		
<b>1<sup>st</sup></b>	<i>I sang</i>	taki-rqa-ni	<b>1<sup>st</sup> (excl.)</b> <i>we sang (not you)</i>	taki-rqa-yku	
			<b>1<sup>st</sup> (Incl.)</b> <i>we sang (w/you)</i>	taki-rqa-nchis	
<b>2<sup>nd</sup></b>	<i>you sang</i>	taki-rqa-nki	<i>you (pl.) sang</i>	taki-rqa-nkichis	

**3<sup>rd</sup>**    *he/she sang*    taki-**ra**-n    *they sang*    taki-**ra**-nku

**Simple Future** – Tense marker is in bold

	<b>Singular</b>		<b>Plural</b>	
<b>1<sup>st</sup></b>	<i>I will sing</i>	taki- <b>saq</b>	<b>1<sup>st</sup> (excl.)</b> <i>we'll sing (not you)</i>	taki- <b>saq</b> -ku
			<b>1<sup>st</sup> (Incl.)</b> <i>we'll sing (w/ you)</i>	taki- <b>su</b> -nchis
<b>2<sup>nd</sup></b>	<i>you will sing</i>	taki-nki <sup>5</sup>	<i>you'll (pl.)sing</i>	taki-nkichis
<b>3<sup>rd</sup></b>	<i>he/she'll sing</i>	taki- <b>nqa</b>	<i>they will sing</i>	taki- <b>qa</b> -nku

(Cusihuamán, 1976)

**TABLE 1.**

Another important aspect to be familiar with is the bipersonal conjugation available in CQ. In this phenomenon, the verb can be affixed with markers for both subject and object. Marking for subject is obligatory, but marking for the object is common as well. Furthermore, the order of affixes has been a well-researched topic and is generally agreed upon as: root, derivational suffixes, inflectional suffixes and independent suffixes (see Cerrón-Palomino, 1994; Cusihuaman, 1978; et al.) Examples of this are provided below.

4)	Willa-wa-n	Willa-wa-ra-n	Willa-wa-nqa
	Tell-1sO-3sg	Tel-1sO-PAST-3sg	Tell-1sO-3sgFUT
	“He tells me”	“He told me”	“He will tell me”

The classic example of the supreme agglutinability of Quechua is provided by Cerron-Palomino (1994; 83), which is a predicate clause meaning, roughly, “surely, then, since you attempted to instill in me desire to help you to only sow . . .”<sup>6</sup> (Translated by P. Masullo).

<sup>5</sup> N.B. – The 2<sup>nd</sup> person singular and plural future has the same realization as in the present tense.

5) tarpu-ysi-ri-chi-ku-naya-wa-swa-yki-chik-manta-lla-ña-puni-chá

A sentence of this agglutinitve magnitude dwarfs the longest word in the English language, “antidisestablishmentarianism”. I will not be discussing any sentences of this duration; however providing a sample of extreme agglutination that includes ‘-chi’ seemed appropriate.

The above examples show that bipersonal conjugation allows for the omission of overt pronouns. The sentences below have the exact same meaning as those above, even though the overt pronouns are included.

- 6) a. Pay-qa noqa-ta willa-wa-n “He tells me”  
He-TOP. I-ACC. Tell-1sO-3s
- b. Pay-qa noqa-ta will-wa-ra-n “He told me”  
He-TOP. I-ACC Tell-1sO-PAST-3s.
- c. Pay-qa noqa-ta willa-wa-nqa “He will tell me”  
He-TOP. I-ACC Tell-1sO-3sFUT.

The final grammatical point to make concerns the use of the validator. The validator is a required part of any grammatical sentence in CQ (Solá, 1967). Some validators indicate that the speaker knows something to be true. Others indicate that something has been heard, but not known personally. Still others are used in story-telling. Once a statement is completed, the validator is affixed to express the speaker’s relation to the veracity of the statement. The validator is affixed as the last possible morpheme of a word; however it can be affixed to both substantives or verbs. If we take the sentences from 6) and affix the validator, they can look like the following examples, all of which have roughly the same meaning.

---

<sup>6</sup> “Seguramente, pues, desde que Uds. Tratron de que yo sienta deseos de ayudarles nomás a sembrar, ” Cerrón-Palomino, 1993; 83)

- |    |    |            |           |                  |               |
|----|----|------------|-----------|------------------|---------------|
| 7) | a. | Pay-qa-n   | noqa-ta   | willa-wa-n       | “He tells me” |
|    |    | He-TOP-VAL | I-ACC     | tell-1sO-3sg     |               |
|    | b. | Pay-qa     | noqa-ta-n | willa-wa-n       | “He tells me” |
|    |    | He-TOP     | I-ACC-VAL | tell-1sO-3sg     |               |
|    | c. | Pay-qa     | noqa-ta   | willa-wa-n-mi    | “He tells me” |
|    |    | He-TOP     | I-ACC     | tell-1sO-3sg-VAL |               |

Notice in 7c) the use of ‘-mi’ to validate. This is, as mentioned above, due to the consonantal ending of the verb. Furthermore, in much of the literature sentences are provided without a validator. Where sentences are provided without validators, I have not included them. However, when speaking with my consultants, they almost always insisted on including the validator. I do not consider this an important detail as the use of the validator seems to be completely unrelated to the use of the causative.

## 1. MORPHO-SYNTAX OF CAUSATIVENESS.

In this section I explore the role of the causative morpheme in Cuzco verbs. I will provide analyses of causative manifestation within intransitive verbs. I will describe in detail the valence operations and provide syntactic descriptions regarding different semantic classes of verbs. I will provide the same analyses for the transitive and ditransitive realizations. Attention will be given to the distinction between lexicalized and syntactic causatives. Also included in this section is an examination of the double causative found in CQ. Examples of other varieties of Quechua may be provided for contrastive purposes.

**1.1. Framework – Baker (1988) and Hale and Keyser (1993).** In this work there will be extensive analyses of causatives. I will conduct this work within the confines of the generative framework. Where the causatives are syntactic, I have undertaken this work in accordance with Baker (1988). Where causativeness is lexical, I will be following the examples of argument structure set down by Hale and Keyser (1993). Due to the nature of causative morphemes, there is a need to put the analyses within a framework. Causativeness, by its very nature, alters the argument structure of a lexical item. I will present detailed information regarding the expression

of argument structure, and the alternations it provides for lexical items. As argument structure plays such a key role, the description of case and argument will be predicated on Theta Theory. Theta Theory will also back my description of the semantic range of causatives. Also important to the description of argument structure is Government Theory which will establish a locality relation between two lexical items. Trees will be illustrated using X-Bar Theory. Finally, Binding and Control Theory will be used to frame my analyses. These are detailed in Baker's, *Incorporation: a theory of grammatical function changing* (1988).

The Quechua causative '-chi' is a bound morpheme. It heads a VP in the syntax and takes a VP as a complement. The theta grid for the causative in Quechua is the following: '-chi' <agent, event>. This theta grid is predicated on the assumption that causatives occur as an instance of verb incorporation. The syntactic structure I propose is supported by the framework set up by Baker (1988). Their work on argument structure is in turn reliant on The Head Movement Constraint, The Empty Category Principle and Antecedent Government. Furthermore, the application of two principles, a) Unambiguous Projection and b) Full Interpretation, allow for the observed expression of relations among verbal argument. Also of importance is the relationship of 'internal' and 'external' subjects and how they are assigned theta roles. They allow that, as external subjects of causatives (and unergatives, as well), they are agents in relation to events assigned by the verb as a function of s-syntactic predication. Rather, as Chomsky (1981) proposes, it is the VP not the V by itself, that assigns the semantic role to the subject. Hale and Keyser (1993) provide analysis on the role of the *manner component* of causativizing transitive verbs, which relates internally to the argument structure of the verb, while the external verb is related through predication.

Furthermore, this investigation has been undertaken using discrete one-on-one elicitation practices proposed in Payne's, *Describing Morpho-Syntax: a guide for field linguists* (1997). I incorporated his theories on respect and viability, as well as diversity and variation during my elicitation sessions. I also created an 'optimal elicitation environment' in accordance with his proposals, including patience and circumnavigation in eliciting tokens. Lastly, as this is purely descriptive, as opposed to theoretical, enterprise, there was little worry of getting 'correct' data. Elicitations were never coercive or compromised to ensure desired data. While this in no way

can be construed as a definitive analysis of the causative content of ‘-chi’, it could serve as a sounding board for further investigation.

**1.2. Aspects of ‘-chi’; Theta Criterion.** The Theta Criteria (Chomsky, 1981) states that every role a verb can assign must have one, and only one, argument. A role expressed with two arguments, or not expressed at all, renders the sentences ungrammatical. As has been discussed, ‘-chi’ is a bound morpheme expressing causation. In terms of valence operations, ‘-chi’ always increases the number of arguments by one, creating the need for a ‘causer’ argument. The Theta Grid of ‘-chi’ can be seen as <agent, event>, with ‘event’ being the uncausativized utterance whose verb has a minimal Theta Grid of <agent>. This means that it is expected that ‘-chi’ changes intransitives into transitives and transitives into ditransitives. As will be illustrated in the given argument structures, the lack of an additional argument in a causative phrase renders it ungrammatical due to the Theta Criteria.

As mentioned earlier, there are other bound morphemes that increase valency, particularly the suffixes ‘-ya’ and ‘-cha’. While these are valence increasing morphemes, they fall outside the purview of my investigation. It is important to note that ‘-chi’ does not alter the derivation. Rather, ‘-chi’ affixes only to verbs, and the item to which it affixes always remains a verb. It cannot affect causativeness on substantives. This is because in the syntax ‘-chi’ can only head a VP and takes as a complement a VP. On the other hand, ‘-ya’ and ‘-cha’ head Substantive Phrases and take SPs as complements. These can change substantives to verbs through transpositional derivation, and as such are not of relevance to this work. The table below illustrates these processes.

8) Causativeness-Expressing Morphemes

(Calvo-Pérez, 1993:173)

suffixes	t’ika –	“flower”
‘-y’ verbalizer	t’ika-y	“to flower, bloom”
‘-ya’ “become”	t’ika-ya-y	“to become a flower”
‘-cha’ “to make X”	t’ika-cha-y	“to adorn with flowers”
‘-chi’ “to cause”	t’ika-chi-y	“to make/produce flowers”

**TABLE 2.**

Using the Theta Criterion, I will illustrate that the causative morpheme ‘-chi’ is productive and predictable. The role and manifestation of ‘-chi’ conforms entirely to what one would expect of valence increasing operators. Whether the verb be intransitive or transitive, unergative (where the subject is the semantic agent) or unaccusative (where the subject is *not* the semantic agent), or even change-of-state, the result of the affixation of ‘-chi’ is predictable. In the following sections are analyses and Lexical Relational Structures demonstrating that the morpheme ‘-chi’ is predictable. I will compare intransitive verbs with their causativized counterparts, continuing with the same comparisons for transitive and ditransitive verbs.

Yet the causative ‘-chi’ is not completely predictable. There is one interesting instance of causativeness, and that is in regards to impersonal constructions, such as: *to hunger, to be sad, to be tired*, etc. In this class of verbs, there is an aberrant manifestation of the causative, which will be explained in section 1.6. The impersonal construction of these verbs of emotion allow for an unanticipated manifestation. There appears to be an inherent causative property, yet it can take an overt causative marker in the under the appropriate circumstances. However, it looks as if all verbs of emotion follow this pattern, making it predictable in its irregularity.

**1.3. Intransitive Manifestations – Unergative and Unaccusative.** Intransitive verbs are those that possess only one argument. Oftentimes the argument is external and plays the role of syntactic subject and semantic agent. This distinction is recognized (Perlmutter, 1978) as unergative, or ‘true intransitives’ (Hale & Keyser, 1993), and can be seen in *Tom exercises* or *John sleeps*. There are also unaccusative verbs in which the subject is not the active agent of the action, as in *The man died* and *John arrived*. Other verbs can be either intransitive or transitive, with the subject acting as agent in the intransitive and patient in the transitive, as in *The vase broke* or *I broke the vase*; here the ergative form is equitable with the unaccusative form. Whatever form it takes, the importance of the intransitive is that it only requires one argument. In the following sections, I will illustrate the causative manifestation within each type of intransitive verb. The syntactic structure before movement of the verbs to be analyzed is provided below (Levin and Hovav, 1995).

- 9) a. unergative            John sleeps            [NP John][VP[V sleeps]]  
       b. unaccusative        John arrived            \_\_ [VP[V arrived]][NP John]]

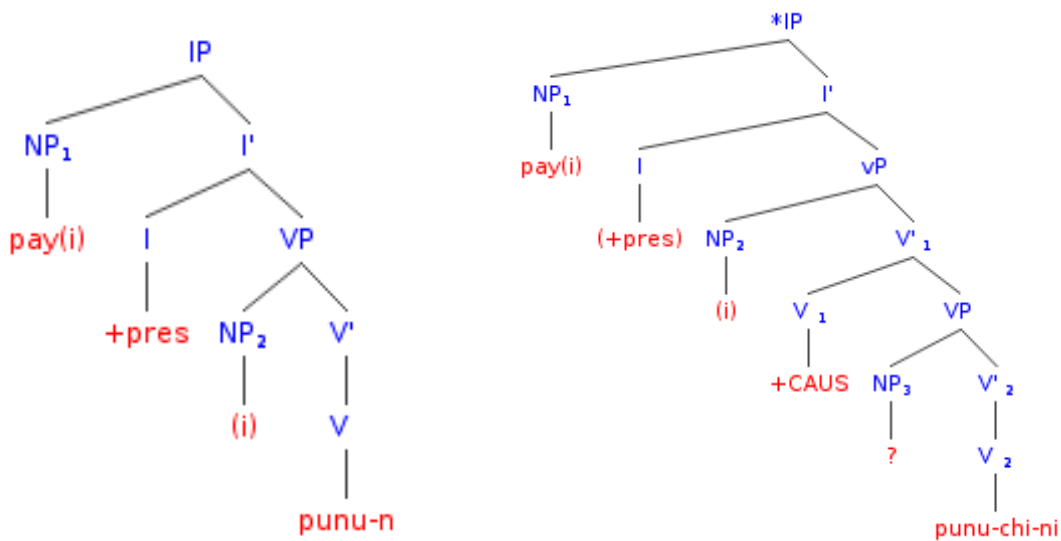
For the sake of simplicity and economy, the subsequent syntactic trees provided throughout this paper will show the sentence structures in post-movement.

As mentioned above, the following pages will show that the role and manifestation of the suffix ‘-chi’ will be productive and predictable. It will be shown that where affixation occurs, increased valency follows. Furthermore, where increased valency occurs, the need for an additional argument arises. Without these effects, ungrammaticality ensues.

**1.3.1. Cuzco Unergatives.** As in English, CQ has its different types of intransitive verbs. We will begin by examining an unergative intransitive sentence, *Pay puñun* or ‘He sleeps’. Also as in English, the Theta Grid for *puñuy* - “to sleep” is <agent>. As will be illustrated below, based on Levin and Hovav (1995), the subject *Pay* originates in SpecVP and is raised to the NP, with *puñun* residing in the V node. However, when we causativize the sentence by adding ‘-chi’, a valence increasing operator, we are required to add an argument. Without an argument we get *\*Pay puñuchin*, with the intended meaning, “\*He causes sleep”. However, we have not added an argument. Without an additional causer role, the Theta Criterion (Chomsky, 1981), which states that for each argument there must be only one realization of that argument, will go unfulfilled. This will leave the causative with an agent, but no recipient, thus rendering this an ungrammatical sentence as seen in 11).

- |     |                  |                 |     |                      |                         |
|-----|------------------|-----------------|-----|----------------------|-------------------------|
| 10) | <i>Pay puñun</i> | (Muysken, 1979) | 11) | <i>*Pay puñuchin</i> | (S. Gutierrez, P. Comm) |
|     | Pay              | puñu-n          |     | Pay                  | puñu-chi-n              |
|     | He/she           | sleep-3s.       |     | He/She               | sleep-CAUS-3s.          |
|     | He/she           | sleeps.         |     | *He/she              | causes sleep.           |



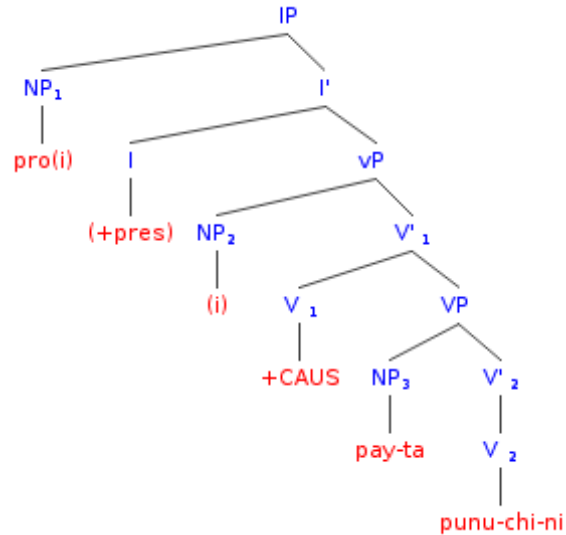


As is shown in the examples above, the placement of ‘-chi’ in the structure requires an additional argument. The lexical relational structure (LRS) provided in 11) demonstrates how ungrammaticality ensues if no additional argument is added. However in 12) below, the addition of an agent to initiate the event, and thus receive case from ‘-chi’, renders this utterance grammatical. Now *puñu-* can assign case to the object *pay-ta*, while ‘-chi’ provides theta-role to the subject ‘-ni’, represented by **pro** in Spec of IP. We also see that **pro** originates in Spec position of the vP, ‘-chi’, allowing it to govern the event, and thus take subject position. Meanwhile, the insertion of the causative branch, and its subsequent government of *Pay* in the Spec position of the lower VP, forces *Pay* to take on object status. This is further evinced in the assignment of the accusative case marker ‘-ta’, which can only be affixed to objects.

It is important to note here that the presence of affixing person morphemes allows for CQ to be expressed as a Pro-Drop language. This is where an overt pronoun is unnecessary to designate actors. Its meaning can be inferred from the morphology of the verb through affixation (Chomsky, 1981).

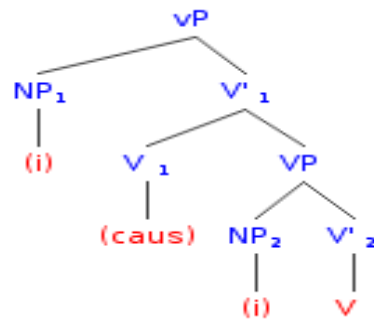
- 12) *Payta puñuchini* (Muysken, 1979)  
 Pay-ta puñi-chi-ni  
 He/She-ACC sleep-CAUS-1sg.

I make him/her sleep.



**1.3.2. Unaccusative Verbs.** Unaccusative change-of-state intransitive verbs are those where, while requiring only a subject, the syntactic subject is not the semantic agent. The Theta Grid for these verbs is <experiencer>. In English, examples of unaccusative verbs can be seen in *The man arrived*, *The parrot died* or *The flowers fell*. Before movement, subjects of unaccusative verbs begin internally, in the NP position off of the V' node. This representation is taken from Levin and Hovav (1995). For the Lexical Relational Structure, I will follow the scheme proposed by Masullo (2004) which maps internal and external causatives onto the same LRS. The LRS I will use is provided below in 13).

13)

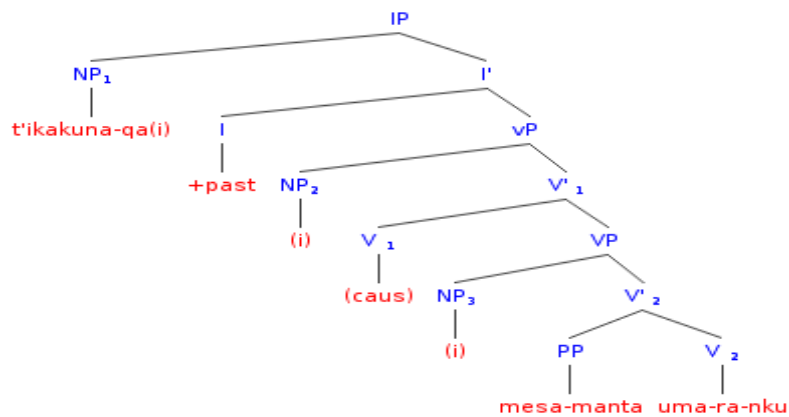


Using this schema, an example of an unaccusative sentence in CQ *The flowers fell off the table* is below, with a Theta Grid <theme> being filled by *the flowers* and an ablative adjunct in *off the table*.

14) *t'ikakunaqa mesamantan urmaranku* (S. Gutierrez, L. Campos P.Comm.)

*t'ikakuna-qa mesa-manta-n urma-ra-nku*  
 flowers-TOP table-ABL-VAL fall-PAST-3p

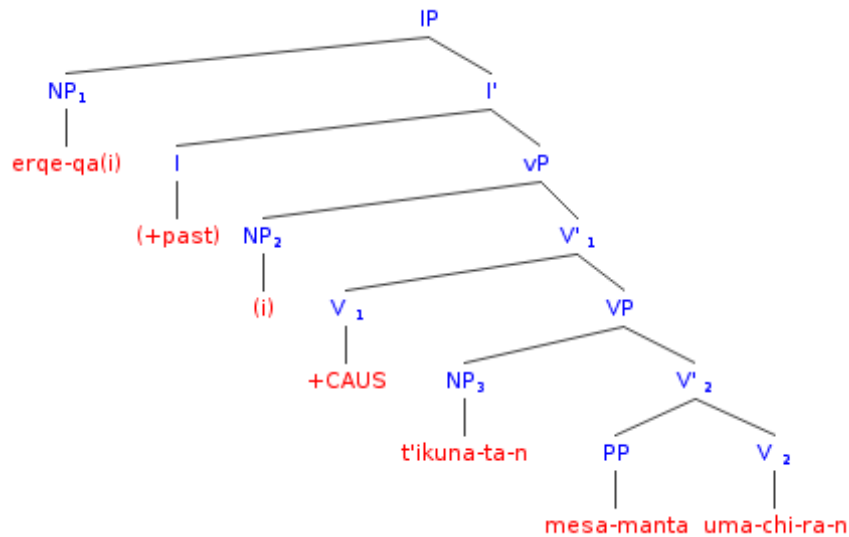
The flowers fell off the table.



In this example there is an internal causativeness, however, unlike the overt causative marker ‘-chi’, it does not assign case. Case, in this example, is provided by the verb, *urma-* and is assigned to the patient, *t'ikakuna*.

The addition of the causative morpheme ‘-chi’ in 15) adds the causer argument, and case as well. The added VP provided by causation returns the current internal subject “t’ikakunaqa” to object status. Again, this can be seen through the fact that “t’ikakuna” must take the accusative case marker ‘-ta’. With the addition of the causative, this can be translated as *The boy made the flowers fall* or *The boy dropped the flowers*, according to my consultants. The verb “urmay” can be seen to have the following Theta Grid <theme>, yet when ‘-chi’ is added the new Grid for “urma-chi-y” is <agent, event>.

- 15) *erqeqa t’ikakunatan mesamanta urmachiran* (S. Gutierrez, L. Campos P.Comm.)  
 erqe-qa t’ikakuna-ta-n mesa-manta urma-chi-ra-n  
 boy-TOP flowers-ACC.-VAL table-ABL. fall-CAUS-PAST-3s  
 The boy made the flowers fall off the table.



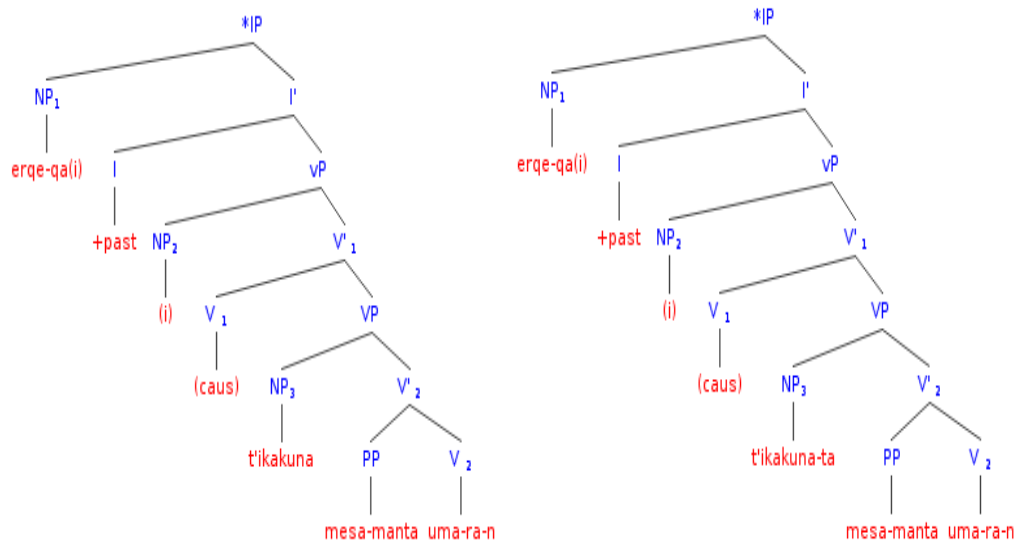
Further examples illustrate the predictability of the causative morpheme. The following two sentences are ungrammatical because of violations of the Theta Criterion. In 16), the verb *urmaran* has too many arguments. As you can see, there is no entity to assign case to the object. Since “the boy” is the agent it would have to be assigned case by the overt causative, yet here it isn’t. It is receiving its Theta-role from the verb, so that the object is unsaturated. Without ‘-ta’

marking “t’ikakuna” as accusative, this sentence is ungrammatical. The ablative marker ‘-manta’ is already case marking “mesa”, rendering it unable to perform double duty and provide case to “t’ika” as well. Moreover, if we affix the accusative marker ‘-ta’ without the additional causative morpheme there are insufficient case-assigning entities, as in 17).

16) \**erqeqa t’ikakuna mesamanta urmaran* (S. Gutierrez, L. Campos P.Comm.)

erqe-qa	t’ikakuna-?	mesa-manta	urma-ra-n
boy-TOP	flowers-?	table-ABL.	fall-PAST-3s

\*The boy the flowers fall off the table.



17) \**erqeqa t’ikakunata mesamanta urmaran* (S. Gutierrez, L. Campos P.Comm.)

erqe-qa	t’ikakuna-ta-n	mesa-manta	urma-ra-n
boy-TOP	flowers-ACC.-VAL.	table-ABL.	fall-PAST-3s

\*The boy the flowers fall off the table.

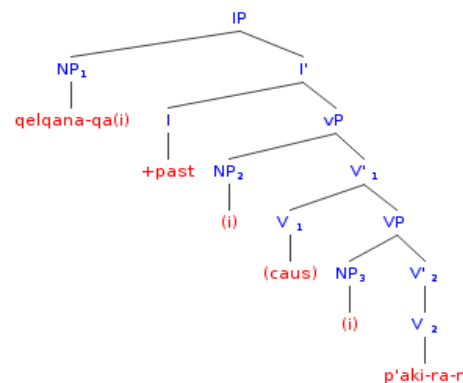
It should be noted that both of my consultants point out an interesting phenomenon concerning the verb *urma-y*, “to fall”. When this verb is affixed with ‘-chi’, their immediate translation is

“to drop”. This naturally, and predictably, fulfills the valence increasing requirement and creates a transitive verb. However, they both agree after little thought, that it can mean, “to make fall” as illustrated in the examples above.

I then proposed a token with a double causative, *urma-chi-chi-y*, to see how they would translate it. Initially, they both felt this was a very ill-formed construction, stating that “making someone make something fall” felt extremely clumsy and awkward. Though I attempted to provide circumstances where the phrase would be acceptable, neither agreed. Yet, when I suggested the possible translation of “to make someone drop something”, they both acquiesced and conceded that it sounded acceptable. Their acquiescence was not parallel though. One consultant felt it perfectly acceptable, while the other needed a moment to feel comfortable with it. I will go into this matter in greater detail later.

Another example of the effect of ‘-chi’ on the unaccusative is the Cuzco verb, “*p’akiy*” or “to break”. Below is the phrase, “The pencil broke”. In CQ, as in English, “to break” is ergative, allowing it to be expressed intransitively or transitively. Below 18) is the lexical argument structure of the intransitive manifestation. For consistency, the transitive structure will be provided below as well in 19).

- 18) *qelqanaqa p’akiran*  
 qelqana-qa p’aki-ra-n  
 pencil-TOP break-PAST-3s  
 The pencil broke.  
 (S. Gutierrez, P. Comm.)



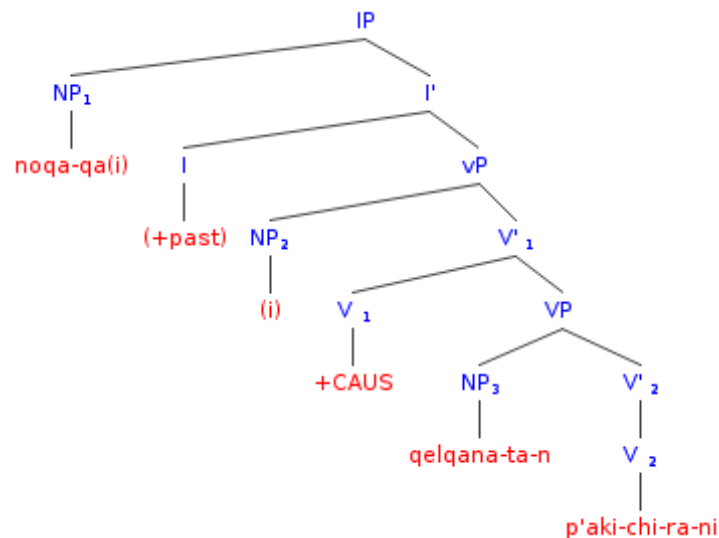
Here we see here, the subject “qelqana-qa” of this ergative verb is being assigned theta-role by the verb, with the internal non-overt causative property remaining inert. This allows the Theta Grid for the intransitive “break”, <theme/patient>, to operate faithfully. However, as a change-of-state verb, the transitive *break* has a Theta Grid of <agent, patient>. Adding ‘-chi’ does not

equate to the English *I broke the pencil*, with a Theta Grid <agent, patient>. Rather, it is closer to *I made the pencil break* (S. Gutierrez, P. Comm), with a Theta Grid <agent, event>.

19) *Noqaqa qelqanatan p'akichirani*

Noqa-qa	qelqana-ta-n	p'aki-chi-ra-ni
I-TOP	pencil-ACC-VAL	break-CAUS-PAST-1s

I made the pencil break.

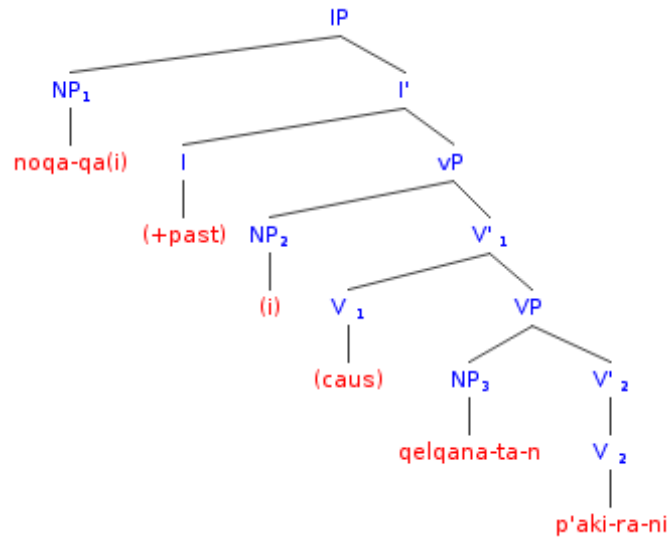


In this representation the slot provided for internal causation, the Specifier position off the V node off the vP, is filled with an overt causative. As can be seen the Theta Grid is operating faithfully.

20) *Noqaqa qelqanatan p'akirani*

Noqa-qa	qelqana-ta-n	p'aki-ra-ni
I-Top	pencil-ACC-VAL	break-PAST-1s

I broke the pencil.



**1.3.3. A Summary.** In this section I have presented the structure of unergative and unaccusative intransitive verbs and their causativized counterparts. As can be seen in the illustrations, any attempt to add causativeness to intransitives without the increase of arguments renders it ungrammatical. Attempts to increase arguments without the addition of causativizers likewise compromises grammaticality. As expected, it is only with the inclusion of an additional argument that the ‘-chi’ morpheme may be added. This shows that the role and manifestation of the suffix ‘-chi’ in CQ must follow the Theta Criterion.

Furthermore, the Lexical Relational Structure of both internal and external causative change of state verbs can be mapped onto the same tree. Interestingly, the node reserved for causation acts in the same manner whether that causativization is internal, external or morphologically affixed. This allows for the role and manifestation of ‘-chi’ in intransitives to be completely predictable.

**1.4. Transitive Manifestation.** Transitive verbs are those that require two arguments, often a subject and an object. The argument structure of these verbs generally has the agent of the verb originating in the VP. Heads of the transitive VP can take as a complement an NP, PP or another VP. Examples of transitive verbs can be seen in the following sentences, *I opened the door* and *The writer bought a book*. In these sentences the verb takes a theme as the object. As with the



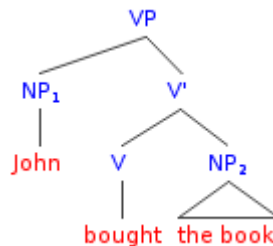
causativized intransitives above, the Theta Criterion requires the presence of an object to act as the theme of the verb. The above are examples of ‘simple’ transitive verbs, as opposed to ditransitive verbs, which require more than one object and which will be discussed below.

As in the intransitive examples above, the role and manifestation of causativeness is productive and predictable. The examples below will demonstrate how transitive verbs will become ditransitive verbs with the addition of the morpheme ‘-chi’. The structure I will use on which to base my analyses are from Levin and Hovav (1995). It begins with the external subject/agent of the phrase in Spec VP position, as suggested by the Internal Subject Hypothesis. The internal argument, the object will originate within the VP, dominated by V’. The appropriate schema can be shown as:

21) Transitive: John bought the book. NP [V NP]

The basic structure of the phrase before movement takes place is presented in tree structure below.

22)

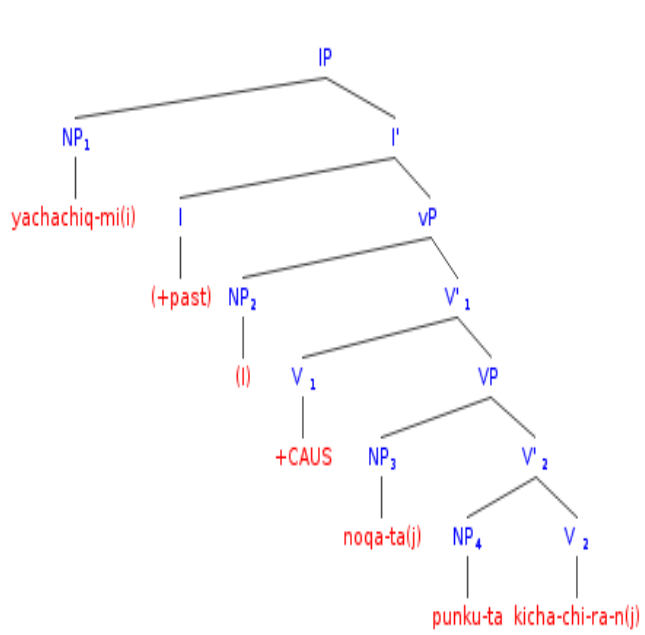
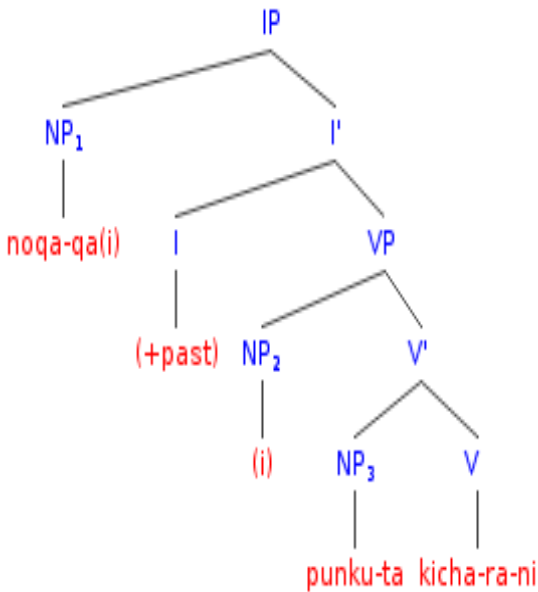


**1.4.1. Transitives in Cuzco Quechua.** The simple transitive manifests itself in CQ in an unremarkable manner. The object of the verb is marked for case depending on its syntactic significance. While intransitive verbs can take only accusative case ‘-ta’, transitive verbs can take objects marked in accusative, dative ‘-man’, or instrumental case ‘-wan’ (Cole, 1983). The suffix ‘-ta’ designates the object of an intransitive verb, with ‘-wan’ denoting instrumental and ‘-man’, dative case. An example of the sentence, ‘I opened the door’ is *Noqaqa punkuta*

*kicharaniy*. In this sentence, the object of the verb is ‘door’, *punku*. However, because it is the object it must receive case from the verb, marked by ‘-ta’. This can be seen in 24) below.

23) Noqa-qa punku-ta kicha-ra-ni (S. Gutierrez, P. Comm.)  
 I-TOP door-ACC open-PAST-1s  
 I opened the door.

24) yachachiq-mi noqa-ta punku-ta kicha-chi-ra-n  
 student-VAL I-ACC door-ACC open CAUS-PAST-3s  
 The student made me open the door.



23)

24)

Also, above in 24) is the causativized phrase, ‘The student made me open the door’, or *Yachachiqmi noqa-ta punku-ta kicharan*. It is important to note that person agreement of the verb *kicha-y* is no longer 1<sup>st</sup> ‘-niy’, but rather 3<sup>rd</sup> ‘-n’. Also it is important to notice that when the

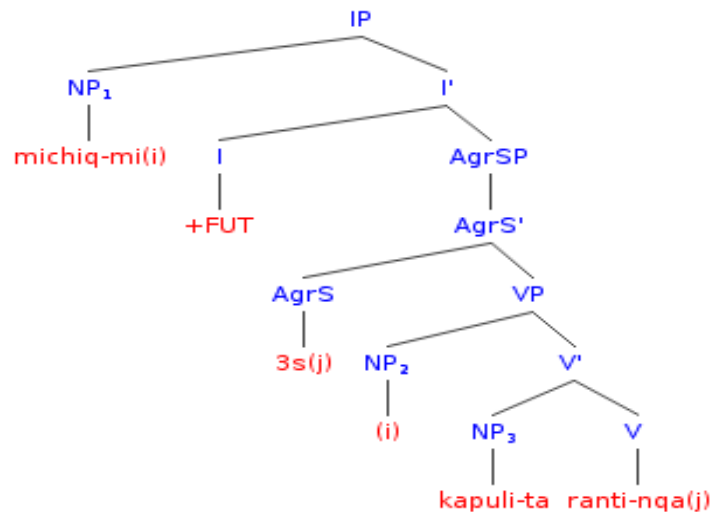
additional object is added, it also takes the accusative marker ‘-ta’. As mentioned above, this is not the only option to mark the ‘causee’, the others will be addressed section 3.

Another example of a causativized transitive can be seen below in 25). In this sentence the verb *ranti-* “to buy/barter for”, with the Theta Grid <agent, theme> is affixed with ‘-chi’. As will be shown, the addition creates a new Grid, <agent, event>. Example 25) below is the translation of the phrase, “the shepherd will buy cherries”.

25) Michiq-mi                      kapuli-ta      ranti-nqa                      (L. Campos, P. Comm.)

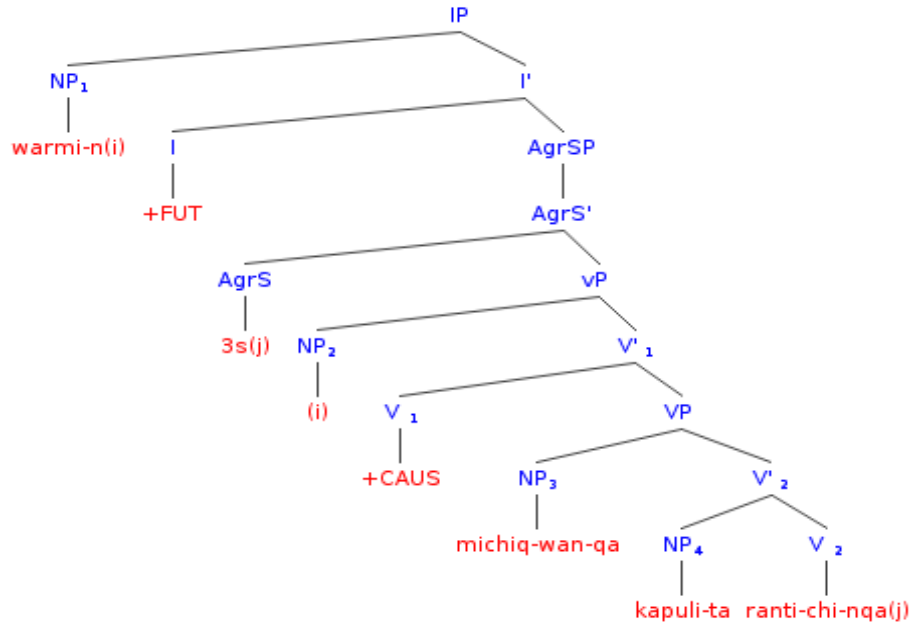
Shepherd-VAL                      cherries-ACC      buy-3sFUT

The shepherd will buy cherries.



Below is the same sentence with the causer argument added. The new Theta Grid is now expressed as <agent, event>. In the new sentence, the shepherd will be made to buy the cherries by his wife. Here, “wife” takes on the role of causer and de facto subject. The former subject is now descended to the role of patient and will receive case accordingly. The structure for the phrase “The woman will make/have the shepherd buy cherries” (L. Campos, P.Comm.) is below.

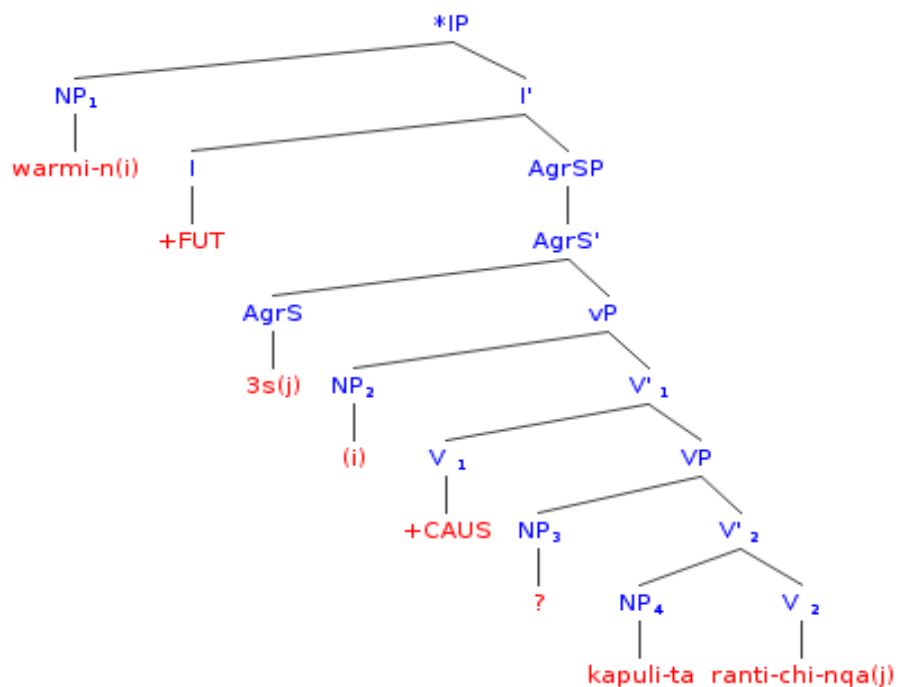
- 26) Warmi-n michiq-wan-qa kapuli-ta ranti-chi-nqa  
 Woman-VAL shepherd-INST-TOP cherries-ACC buy-CAUS-3sFUT  
 The woman had the shepherd buy the cherries.



Notice that in this phrase the argument being made to perform the action “michiq-wan-qa” is not taking the accusative marker ‘-ta.’ In this example, the instrumental ‘-wan’ is being used. As mentioned earlier this is one of the acceptable possibilities for causative constructions. The difference between using ‘-ta’ and ‘-wan’ in this instance seems to be one concerning volition. In this sentence, the shepherd seems willing to buy the cherries (Cole, 1983; S. Gutierrez P.Comm.; L. Campos, P.Comm.) and this is why ‘-wan’ and not ‘-ta’ is being used. More will be discussed on this semantic difference in section 3.

Lastly, the final tree shows that the absence of an additional argument renders a causativized transitive sentence ungrammatical. This same premise is as applicable for intransitive sentences as transitive ones. In this phrase, there is a Theta Role unaccounted for. *Ranti-y* “to buy” needs to assign an agent role, and without *michiq*, the role is unsaturated and thus the sentence is ungrammatical.

- 27) Warmi-n kapuli-ta ranti-chi-nqa  
 Woman-VA. cherries-ACC buy-CAUS-3sFUT  
 The woman had the shepherd buy the cherries.



**1.4.2. ‘-man’ Suffix and ‘-ta’ Suffix.** It is important to note here, that there is more than one way to mark multiple objects in causative sentences. Previously, I mentioned the semantic difference between ‘-ta’ and ‘-wan’. This can distinguish between the causee’s volition. This will be further discussed in section 3. However, there is another marker than can be used in causative constructions. The dative suffix ‘-man’ is also possible. Generally, this suffix is used to designate the indirect object. Some examples in CQ, provided by S. Gutierrez (P.Comm.), are presented below.

- 28) *noqan erqeman suñata qorani*  
 noqa-n erqe-man suña-ta qo-ra-ni

I-VAL          boy-DAT          gift-ACC          give-PAST-1s

In contrast, 29) is ungrammatical

29) *noqa erqe-ta suñata qorani*

noqa-n          erqe-ta          suña-ta          qo-ra-ni

I-VAL          boy-ACC          gift-ACC          give-PAST-1s

In non-causative sentences, there cannot be more than accusative marker. The indirect object is marked with the dative ‘-man’. However, in example 24) above, *yachachiqmi noqa-ta punku-ta kichachiran* is acceptable. This is because it is a causative construction. Yet while this is acceptable to my consultant, she feels that in this construction, the agent of the event *noqa-* would be better marked as *noqa-man*. Thus, 24) sounds better as expressed in 30).

30) *yachachiq-mi noqa-man punku-ta kicha-chi-ra-n*

student-VAL I-DAT          door-ACC          open CAUS-PAST-3s

The student made me open the door.

When questioned about why 30) sounds better than 24), my consultant was unable to give a detailed answer. She said the ‘-ta/-ta’ construction sounded ‘off’. However, she had no such reservations about ‘-man/-ta’ constructions. One possible explanation is that there are records of some phonological restrictions in affixation in Quechua, specifically Bolivian Quechua. Crapo and Aitken (1986) attest that consecutive high-back vowel nucleic suffixes undergo transformation. For example, when the reflexive marker ‘-ku’ is followed by benefactive marker ‘-pu’, it is realized as ‘-kapu’ (Crapo & Aitken, 1986; 5). Another example provided shows the cislocative marker ‘-mu’ being reduced when preceding the benefactive ‘-pu’, and being realized as ‘-mpu’.

This leads to a further consideration. Below is a ditransitive sentence 31) and its casuativized counterpart 32), elicited from S. Gutierrez (P. Comm.). In the first sentence the direct object *waka* is marked with accusative ‘-ta’ and the indirect object is marked with dative ‘-

man'. When asked for the causativized sentence she uses the instrumental marker '-wan' to mark the causee.

31) *waka-ta-n*                      *erqe-man*                      *apachi-ra-ni*  
cow-ACC-VAL                      boy-DAT                      send-past-1s

I sent the cow to the boy.

32) *mamay-wan*                      *waka-ta-n*                      *erqe-man*                      *apachi-ra-ni*  
Mother-1POSS-INST cow-ACC-VAL                      boy-DAT                      send-past-1s

I made my mother send the cow to the boy.

At the time this was translated as “I *made* my mother send the cow to the boy”. Since this sentence is more appropriately translated as “I *had* my mother send the cow to the boy”, as briefly mention in section 1.4.1, it worth investigating as to if '-ta' could be used to mark “mother” as the instrument to convey the semantic feeling of unwillingness. This test may be able to help us understand if this preference for '-man' over '-ta' in causative constructions is phonological or semantic in nature.

**1.4.3. Summary.** In this section I have presented argument structures for transitive verbs in CQ based on those suggested by Levin and Hovav (1995). Transitive phrases that have been causativized by '-chi' must be fulfilled by an additional argument, as expected. This further illustrates the transparent and predictable nature of causatives in CQ.

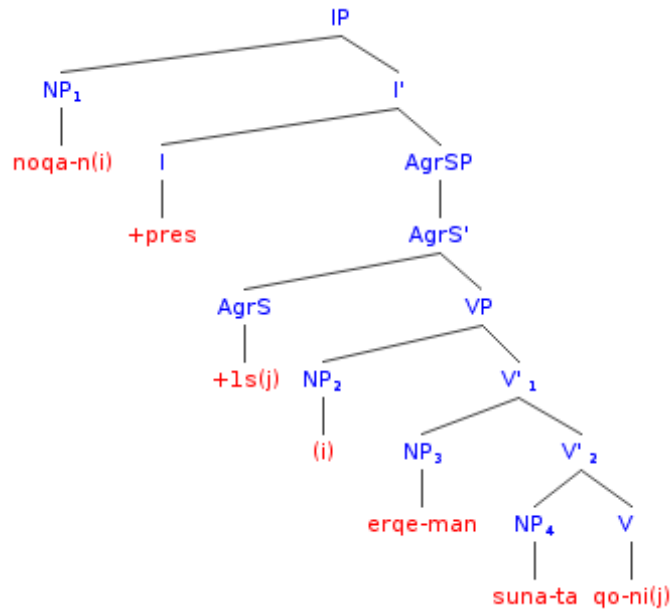
I have also presented initial information regarding the various cases for the objects of these phrases. Above, the uses of '-ta' and '-wan' were briefly contrasted. The third available case will be presented below in section 1.4. A more in-depth analysis of the semantic meanings available to causative phrases will be presented in section 3.

**1.5. Ditransitives.** Ditransitives require three arguments to be grammatical. Examples in English, “put”, “give” and “promise” all require an agent, theme and at least one more argument. For “put” and “give” the argument can be recipient, goal, etc., as in “John put the camera on the table” or “Tom gave his mother a present”. “Promise” can take as the third argument an event, as in “The boy promised to clean his room”, with the clause “to clean his room” acting as the event-satisfying argument. In CQ, some ditransitive causatives appear to be lexical, while others appear to be syntactic, and this will prove interesting when dealing with double causatives. Furthermore, these final examples introduce the last possible case marker available to causativized transitives. The mark ‘-man’ is used for dative objects when used with verbs of experience specific (Cole, 1983, 1985) to this language. For example, “to show”, “to give” and “to remind” are not generally considered a verb of experience in English, but in CQ they are distinctively verbs of experience.

**1.5.1. Ditransitives Causatives.** CQ has ditransitive verbs. These verbs require three arguments. An example of a ditransitive verb is *qoy* “to give”. Like in English, this requires three arguments. “I gave a present to the boy” is expressed in 33) *Noqan erqeman sunata qoraniy*.

33)   noqa-n           erqe-man       suna-ta       qo-ra-ni       (S. Gutierrez, P.Comm.)  
       I-VAL.         boy-DAT.     Gift-ACC.     give-PAST-1s  
       I gave the gift to the boy.

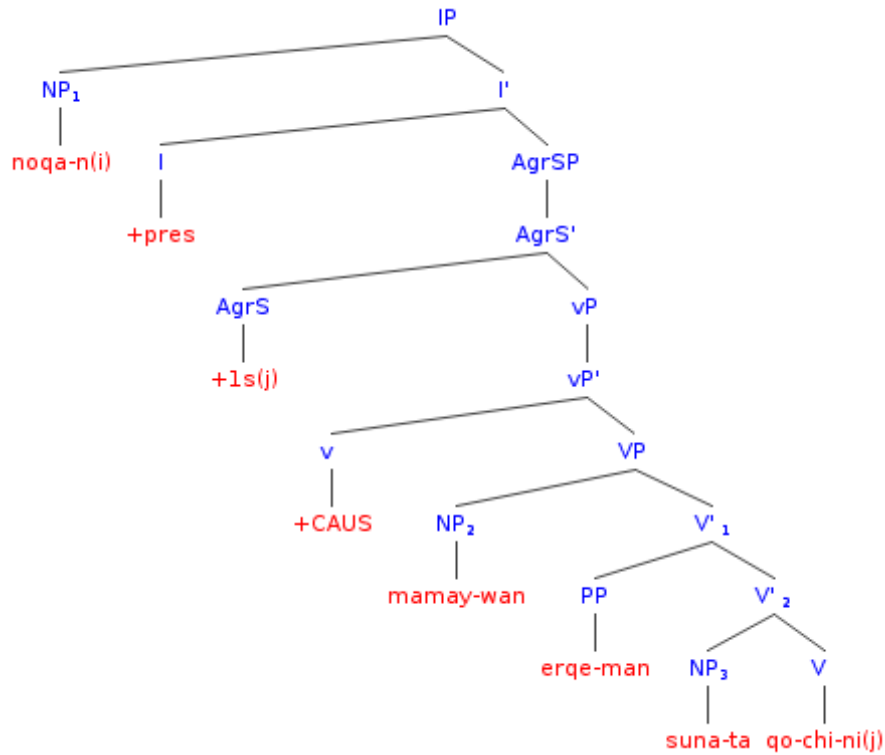




When this sentence is causativized, the expected causer retains the agent role, while the previous agent takes on the patient role. This sentence, when causativized, can be expressed as, “I, using X, sent the boy a present.” The causee is marked with the instrumental ‘-wan’. This can be seen in the sentence, “I made/had my mother send the boy a present”. This is seen in 29) below, *Noqan mamaywan sonata erqeman qorachini.*

- 34) Noqa-n            mama-y-wan            suna-ta            erqe-man            qo-ra-chi-ni.  
 I-VAL,            mother-1POSS-INST    gift-ACC            boy-DAT            give-PAST-CAUS-1s  
 I had my mother give the gift to the boy.

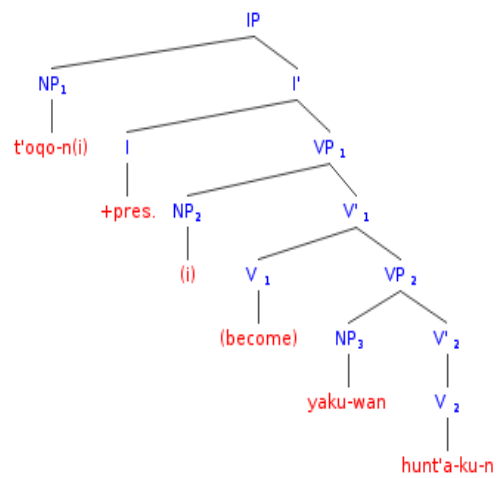
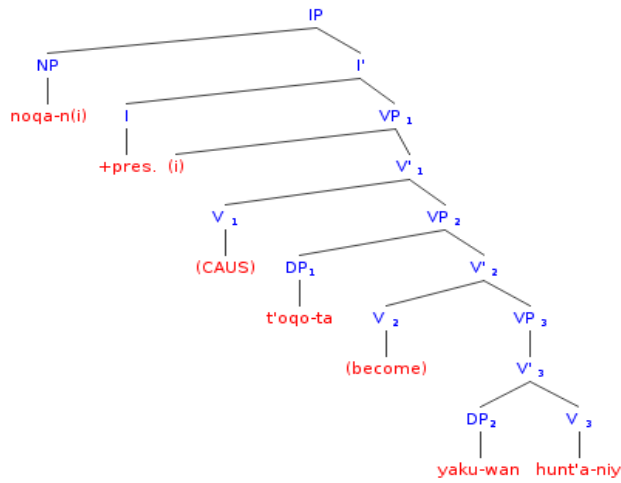
(S. Gutierrez, P.Comm.)



A different presentation of ‘-chi’ is seen with *hunt’ay* ‘to fill’. This verb can be used either transitively as in “I fill the hole”, with its Theta Grid <agent, theme> or as “The hole fills with water.” In this expression the Theta Grid can be realized as <experiencer, instrument>.

Examples of how the verb *hunt’ay* can be realized are *Noqan t’oqota yakuwan hunt’ani*, “I fill the hole with water” and *T’oqan yakuwan hunt’akun*, “The hole fills with water”. In 35) the syntactic subject *t’oqo* is not the semantic agent, but it is in 36). Below are examples of 35) and 36), based on the Lexical Relational Structures of Hale & Keyser (1993).

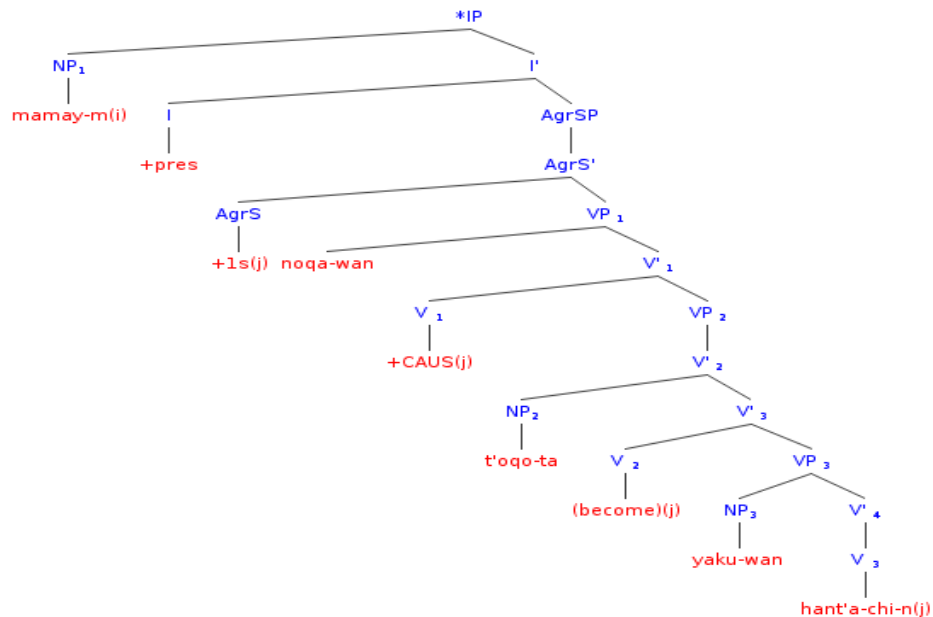
- |  |  |
|--|--|
| <p>35) <i>Noqa-n t’oqo-ta yaku-wan hunt’a-ni</i><br/> I-VAL hole-ACC water-INST fill-1s.<br/> I fill the hole with water</p> | <p>36) <i>T’oqo-n yaku-wan hunt’a-ku-n</i><br/> hole-VAL water-INST fill-REF.-3s.<br/> The hole fills with water</p> |
|--|--|



(S. Gutierrez, P.Comm.)

Interestingly, when a causative is added to 35), there is a concern of where ‘-chi’ occurs in the lexical relational structure. In 35) there is a non-overt inherent causative. There is a vP with (caus) at the v node. In section 1.3.2 examples 18) and 19) we placed the overt ‘-chi’ in the same node where the inherent causative property resides. However, in the following structure 37) placing the overt ‘-chi’ in small v node will not produce the sentence, “my mother made me fill the hole with water”.

- 37) *mama-y-mi noqa-wan t'oqo-ta yaku-wan hant'a-chi-n*  
 mother-1POSS-VAL I-INST hole-ACC water-INST fill-CAUS-3s.  
 My mother made me fill the hole with water



In this diagram the addition of ‘-chi’ is inserted in the node reserved for inherent causation. Although it renders grammaticality in 18), here it does not work. In 18), the governing entity still controls the object it is causativizing, but here it does not. The event is still governed by *noqa-wan* in Spec of the upper VP, yet it should be governed by *mamay-mi*. The structure below provides what I hope is a reasonable depiction of the inner workings of example 37) complete with fulfillment of the case and role assignment, the distinction coming in the location of the causative that governs the entire event.

- 38)    *mama-y-mi*            *noqa-wan*            *t'oqo-ta*            *yaku-wan*            *hant'a-chi-n*  
 mother-1POSS-VAL    I-INST            hole-ACC            water-INST            fill-CAUS-3s.  
 My mother made me fill the hole with water

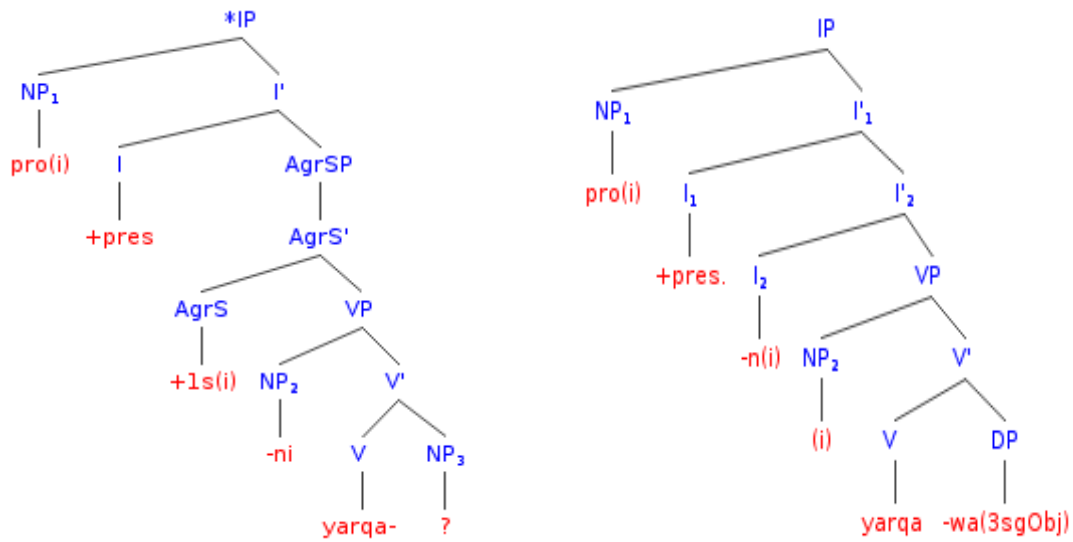


**1.6. Impersonal Constructions.** In CQ, there is a class of verbs referred to by Morató Peña (1995) as unipersonal pronominals, and by others as impersonal constructions. These verbs express necessities, desires, and physical and mental phenomena a person may experience. These verbs behave a little differently than other verbs in CQ. One difference is that in this construction the agent is always expressed with the 3<sup>rd</sup> person.

One example of the impersonal construction in CQ is *yarqa-y* “to be hungry”. *Yarqa-y* is translated as, “to be hungry” (Hornberger, 1983). However, this translation may actually be inaccurate. Multiple elicitations from both of my sources eliminate this as an accurate translation. In English, this translation implies that the agent feeling the hunger is the subject, but this not the case. This can be evinced by the fact that the 1<sup>st</sup> person conjugation is 39) \* *yarqa-ni*. Yet this utterance is ungrammatical (S. Gutierrez, L.Campos, P.Comm.).

**1.6.1. Yarqa-y.** *Yarqa-y* is a transitive verb and as such its Theta Grid can be expressed as <agent, experiencer>, so “I am hungry” is 40) *yarqa-wa-n*, with ‘-wa’ representing 1s. object and ‘-n’ 3s. subject, translated as “Something gives me hunger.” This is not unlike the Spanish expression for “I like ice cream”, where in *Me gusta el helado* is actually translated as “Ice cream pleases me.” This is the same in German with *Es gefällt mir* which means “It pleases me” but is often translated as “I like it”. In these constructions the subject is not the agent, but rather the theme of the phrase, with the object acting as agent. The trees below will illustrate the ungrammaticality of 39) and the grammaticality of 40).

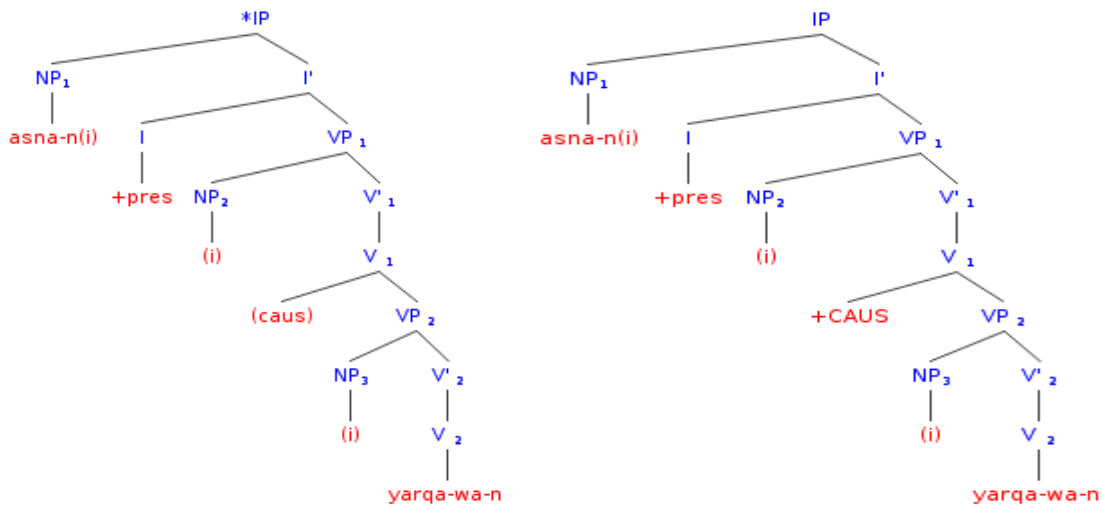
39)	* <i>yarqa-ni</i>	40)	<i>yarqa-wa-n</i> (S. Gutierrez, P. Comm.)
	hunger-1s		hunger-1sO-3s
	*I make (?) hungry		It makes me hungry



As you can see from the trees above, the representation in 39) leaves the theme slot empty. According to the Theta Criterion, this mismatch renders this utterance ungrammatical.

This illustration is important as an example of an internal causative structure. This construction requires an agent and theme. In this manifestation, no ‘-chi’ is needed. However, with an overt agent, such as *kanka asna* “aroma”, the causative suffix must be present. An example of this can be seen in the examples 41) \* *asnan yarqawan* and 42) *asnan yarqachiwan*.

- |     |           |                     |     |           |                          |
|-----|-----------|---------------------|-----|-----------|--------------------------|
| 41) | asna-n    | yarqa-wa-n          | 42) | asna-n    | yarqa-chi-wa-n           |
|     | aroma-VAL | to be hungry-1sO-3s |     | aroma-VA. | to be hungry-CAUS-1sO-3s |



(S. Gutierrez, L. Campos P.Comm.)

So what happens to the additional causer argument required by the causative morpheme? While internal causatives like *yarqa-y* do not require an overt morpheme, they also cannot have an overt agent without one.

**1.6.2. Summary.** While the manifestations of ‘-chi’ are rather predictable in the transitive and intransitive verbs of CQ, they have become less predictable when dealing with impersonal constructions. In impersonal, or unipersonal pronominal, constructions, the stimulus is required to be expressed in the 3<sup>rd</sup> person. This is similar to the impersonal constructions of German and Spanish, where one is really saying “something is X to me.”

Of more interest is the applicability of the causative morpheme. As has been illustrated above, the appearance of ‘-chi’ is bifurcated. If the causer of the emotion is not expressed overtly, then ‘-chi’ cannot surface. However, if there is an overt causer of the verb, then ‘-chi’ must be expressed.



**1.7. Double Causatives.** The last aspect I will discuss is that of the double causatives. This is where there is a double application of the causative morpheme ‘-chi’. In English, recursivity allows for the continual operation of periphrastic causation on phrases. Of course, there may be a pragmatic limitation to how far one can go, but each person tends to have their own opinion. However, the sentence seen below seems to be perfectly acceptable (Stabler, 1994; 309).

- 43) The corporate executives *make* the president *make* the general *make* the sergeant *make* the private kill the reporter.

CQ has no periphrastic causative processes, as I will discuss in greater detail in section 2. There is a severe limit on how many causative markers can be affixed. The determining factor seems to be whether the verb in question can be interpreted as a lexical causative. Stabler (1994) states that in Bolivian Quechua, “to show” and “to kill” can have a second causative morpheme applied. This would make sense if one were to view these terms as “to cause to see” and “to cause to die”. Indeed, when looking at the glosses below, it is easy to acquiesce to that claim.

- |     |              |              |
|-----|--------------|--------------|
| 44) | riku-chi-y   | wañu-chi-y   |
|     | See-CAUS-INF | die-CAUS-INF |
|     | “to show”    | “to kill”    |

As is shown above, the idea that these are, or have become, lexicalized, is not a great leap. Now, the addition of the causative on a lexical causative can mean, “to cause to X” where X is already a causative. With this in mind, the following examples are considered acceptable by Stabler (1994; 306,310).

- |     |                |                |
|-----|----------------|----------------|
| 45) | rikuchi-chi-y  | wañuchi-chi-y  |
|     | Show-CAUS-INF  | Kill-CAUS-INF  |
|     | “to make show” | “to make kill” |

However, the following is considered unacceptable in Bolivian Quechua. This is possibly because Bolivian Quechua adheres to a ‘no double causatives’ rule, yet *rikuchiy* is considered a lexical causative.

- |     |                                     |                                     |
|-----|-------------------------------------|-------------------------------------|
| 46) | *rikuchi-chi-chi-y                  | *wañuchi-chi-chi-y                  |
|     | Show-CAUS-CAUS-INF                  | Kill-CAUS-CAUS-INF                  |
|     | “to make someone make someone show” | “to make someone make someone kill” |

There is one example of a triple causative. This is found in a grammar of Cochabamba Quechua compiled by Herrero and Sanchez de Lozada (1978; 216). This appears to be the only reference to a triple causative in the Quechua literature.

- |     |   |           |
|-----|---|-----------|
| 47) | Susanita-paq t’impuchi-chi-chi-y        | leche-ta  |
|     | Susan-BEN boil-CAUS-CAUS-IMP            | milk-ACC. |
|     | “Have some make boiling milk for Susan. |           |

This is an odd translation for a triple causative in that it appears it would be the same translation for a double causative. I had expected this to be the translation for *Susanitapaq t’impuchichiy lechata*: according to my consultant Lucia Campos, they are the same. The reason for the token and translation in 42) remains unclear, though I suspect it may do to the lexicalness of *t’impuchiy* “to boil/to make boil”.

**1.7.1. Double Causatives in Cuzco.** When I first started investigating this topic, I was met with resounding and emphatic denials of ‘-chi-chi’ constructions by both my consultants. Their immediate opinion was that it was not possible. After continuing with the questions, more detailed reasons began to surface. From these elicitations I have been able to predict which words can be double causatives.

The first group of verbs is those that seemed to be lexical in nature, for example, “to kill”. Both immediately recanted and allowed the possibility of *wañuchichiy* to mean “make kill”. After gathering several more tokens from several more encounters, I believe that there is a lexical connection double causatives and acceptability. For example, while my consultants did not like *rikuchichiy* to mean “to make someone make someone see”, they both accepted it as “to make someone show”, though one was a little reluctant for reasons she could not specify.

This occurred with *apay* “to take” as well. *Apachiy* means “to send”. They both felt that *wañuchichiy* and *rikuchichiy* were better than *apachichiy*. One consultant deemed *?apachichiy* “to make someone send” as understandable, but awkward and uncommon, and she did not like it. My other consultant felt that *apachichiy* was something she would not normally use, but sounded perfectly acceptable. Another token that fell into this middle category of acceptability is *uyniy* “to concede/give in”. When causativized, this leads to *?uynichiy* “to convince”. Yet when this is affixed again with another ‘-chi’ my consultants felt conflicted. One said it was completely unacceptable, but she would understand what was being said. The other consultant thought it was acceptable, but sounded odd.

The last group of verbs I tried to apply double causatives to were those that no have lexical connection at all. An example of these is *away* “to weave”. The informants felt that *awachiy* was perfectly grammatical for “to make weave”. On the other hand, *\*awachichiy* was completely unacceptable. I tried a number of situations and scenarios where someone would be in a position to make someone else weave. There was no acceptance of this phrase. From this we can see a progression of where double causatives are acceptable. A schema is seen below.

48)	<i>wañuchichiy</i> “to make kill”	☺	lexical causatives ↓
	<i>apachichiy</i> “to make send	☹	↓
	<i>awachichiy</i> “to make someone make someone weave”	☹	↓ syntactic causatives

This is by no means meant to be a definitive schema for determining the acceptability of double causatives. However, it can be used as a beginning for a more thorough analysis of CQ double causatives. Furthermore, this should not be construed as insinuating that double causatives are productive. I am merely stating they may be more prevalent than once thought.

**1.7.2. Summary.** In this section I have provided some information on the acceptability of double causatives in CQ. It is at least possible that the existence of double causatives in Quechua is not a binary state of yes or no. There appears to be a progression of acceptance. Words that appear to be more lexical in the nature of the causativeness tend to have some examples of acceptable ‘-chi-chi’ manifestations. While at the same time, the more syntactic the causative appears to be, the less likely for there to be an acceptable double causative realization.

## **2. TYPOLOGY.**

In this section, I will explore and analyze the typological categorization of the causative ‘-chi’ in CQ. First I will discuss the placement of CQ in the typology of causatives. This will be based on Dixon’s classification system which I will briefly describe on below. The appearance of a morphologically overt suffix is obvious, but in accordance with Dixon and Aikhenwald’s proposal, I will examine the possibility of periphrastic, lexical and ‘serial verb’ causatives in CQ. This classification has been undertaken using discrete one-on-one elicitation practices proposed in Payne’s, *Describing Morpho-Syntax: a guide for field linguists* (1997). While this in no way can be construed as a definitive analysis of the typological classification of ‘-chi’, it should serve as a sounding board for further inspection.

**2.1. Dixon’s Typology.** The previous work that I am using as a baseboard for the typology and semantics of CQ in this paper can be found primarily in Dixon and Aikhenwald (2000) and Song (1996). Dixon has proposed five formal mechanisms for the realization of causatives. He discusses and illustrates, as possible causative manifestations: serial verb constructions, lexical causatives (with both one and two morphemes), periphrastic causatives and auxiliary exchanging causatives. However, the final mechanism, and most relevant to this paper, is the morphological

process. While Dixon lists many morpho-phonological processes, it is the affixation process that is applicable here.

**2.2. Song's Typology.** Song (1996), on the other hand, lists three categories. It is not the purpose of this paper to establish a more appropriate typology; however all of Dixon's categories seem to fit within Song's. Song's first category is the 'Compact' type which includes all morphological processes and lexical constructions. The second class is the 'And' type which includes Dixon's 'serial verb' and periphrastic constructions. Finally, Song establishes a 'purposive' type which he feels has not been well-researched. It appears that Dixon's auxiliary exchanging process may fit into this final category. In terms of Song's typology, it is the 'Compact' type which is applicable to this work, and which I will demonstrate is the appropriate typological designation for '-chi'.

**2.3. Quechua's Place in a Causative Typology.** I have attempted to elicit instances of causativeness expressed in various causative constructions, as well as provide examples from literature. These elicitations have been deemed either grammatical or ungrammatical by my consultants. It is with their pronouncement of the grammaticality, or ungrammaticality, of each elicitation that I have placed '-chi' in Song's 'Compact' class. It is true that the causative in CQ could fit very nicely in Dixon's morphological process class of causatives. However, as one of the principles of linguistics is economy, it is more efficient to work within Song's typology.

The Compact class, of which CQ can be included, consists of causative processes maintaining a single clause. This includes bound and free causative morphemes, and causativeness is assigned by bound affixation in Cuzco. The Cuzco variety of Quechua has no periphrastic or serial verb construction from which causation can be expressed.

However, it deserves to be mentioned that CQ does have a verb *atipayay* "to force". With this I tried to establish periphrastic conditions that would produce phrases akin to those with '-chi'. Neither consultant would concede that this verb could produce periphrastic causative expressions. In fact, one of my consultants felt that it was only used to describe military exercises and that she couldn't think of any other environments where the verb sounded natural.

### 3. SEMANTICS.

In this section I will discuss the semantic implications of ‘chi’. Based on the research of Dixon (2000), I will examine the semantic range of causativeness in CQ. Dixon suggests nine parameters of semantic meaning. He further states that while some languages have more than one way to express causativeness (e.g., morphological processes, serial constructions, periphrastic construction, etc.), some have only one method of conveying causativeness. Furthermore, if a language has only one method then it will cover several of the parameters, but not necessarily all (Dixon, 2000; 61).

**3.1. Relating to the Verb.** The first group of parameters that Dixon proposes relates to the verb. Specifically, what is the relation to state/action and transitivity? Specifically, can causative morphemes be applied to action verbs as well as change of state verbs? Does causativeness apply to intransitive verbs in the same manner as the transitive type? For example, Bhasa Indonesia and Malay have causatives that only apply to process and state verbs (Dixon, 2000), and Baker (1996) suggests that Mohawk has a causative morpheme that only works with change of state verbs. Also, there are languages that cannot causativize transitives, such as Yidniy (Dixon, 1994). In CQ, the causative morpheme is allowed to affix both action verbs, as in many examples above, and change of state verbs, seen in examples above as well. Furthermore, as has been illustrated in previous sections, it is applicable to both intransitive and transitive verbs.

**3.2. Relating to the Causee.** The next parameter Dixon proposed is the semantic implication on the causee. Dixon defines the causee as the original subject or agent whose role is descended to object. The first consideration of this parameter is control. Does the causee have control over the activity or does he lack control? In some languages, Korean for example, the causee must have control and so inanimate causees are not permitted. As far as I have ascertained, there are no control concerns in CQ. This can be seen in the contrasting sentences *llanta rawran* “the wood burns” and *erqe llanta-ta rawrachini* “the boy sets the wood on fire” (L. Campos, P. Comm.).

Another consideration for the causee is volition, whether the causee performs the action willingly or unwillingly. An example of volition in English can be seen in the difference

between “I made the boy help the woman” (unwilling) and “I had the boy help woman” (willing). Japanese is an example of a language where different postpositions are used to distinguish between willing and unwilling causees. CQ has the same distinction. When the causee is willing it receives instrumental ‘-wan’. If the causee is unwilling, it receives the accusative ‘-ta’. Examples of this can be seen below in 49) and 50).

49) Noqa-n wayqe-y-ta                      punku-ta              wisq’a-chi-ra-ni  
 I-VAL. brother-1sPOSS-ACC              door-ACC              close-CAUS-PAST-1s  
 “I made my brother close the door (he didn’t want to)”

50) Noqa-n wayqe-y-wan                      punku-ta              wisq’a-chi-ra-ni  
 I-VAL. brother-1sPOSS-INST              door-ACC              close-CAUS-PAST-1s  
 “I had my brother close the door (he was willing)”

(S. Gutierrez, L. Campos P. Comm.)

This is a very common distinction in CQ. Another example can be seen below.

51) Yachachiq-mi noqa-ta              liwru-ta              qhawa-chi-ra-n  
 Teacher-VAL. I-ACC              book-ACC              read-CAUS.PAST.3s  
 “The teacher made me read the book (I didn’t want to)”

52) Yachachiq-mi noqa-wan              liwru-ta              qhawa-chi-ra-n  
 Teacher-VAL. I-wan book-ACC              read-CAUS.PAST.3s  
 “The teacher had me read the book (I was willing)”

(S. Gutierrez, L. Campos P. Comm.)

The next parameter relating to the causee is referred to as affectedness. Dixon states that this parameter has been attested in Tariana, an Amazonian language, but provides no other

examples. In Tariana, one causative morpheme is used when the causee has been completely affected, and a separate causative morpheme is used when the causee is only partially affected. The distinction can be seen in these examples in Tariana “you made my house fall down” – complete affectedness, and “they made some wood chips fall’ – partial affectedness. In English, a closer approximation can be seen by looking at the quantifier used. If English has this causative distinction, then the sentences “I made *the* wood chips fall” and “I made *some* wood chips fall” would receive different causative markers. Cuzco Quechua does not distinguish between these two effects on the causee.

**3.3. Relating to the Causer.** The final four parameters deal with the role of the causer in causative constructions. The first deals with directness, specifically, whether the causer is acting directly or indirectly. Some languages, such as Hindi (Saksena, 1982) have distinct causatives for this type of direct and indirect causation. In English this distinction is made with periphrastic causation and two clauses. “The meat went bad because I left it in the sun” and “The meat went bad because I wouldn’t let my son put it away” translated from Hindi by Saksena, distinguishes between direct and indirect. In the first, “I” is the direct causer, but in the second example it is the prevention of someone that leads to the event. This is the distinction between the two. CQ makes no such distinction.

Another concern relating to the causer is intention. Some languages can discern causation through accident and intention. In English, this distinction can be seen in “He got them arrested” and “He got them arrested in purpose” (Fleischer, 2005). In both examples, “he” is the reason they are arrested, yet there is a subtlety of intention between the two. In the first, the event may be seen as an accident, but in the second it is clear that the event was carried out on purpose. Some languages have two distinct markers to distinguish between the two possibilities; Kammu is an example. Other languages mark only for intentional causation, like Javanese, while others discern between intransitive intentional causation and transitive accidental causation, Motuna (Onishi, in Dixon, 1996). As before, CQ makes no such distinction.

The third consideration here is naturalness. Whether something happens naturally or with effort can be distinguished through the use of the causative marker. In English, this can be



seen, again periphrastically, in “Mary made John open the door” and “Mary actually managed to make John like Spinach” (Miller, 2006). In these examples, Miller suggests that the example of the second event comes through manipulation. Russian uses a morphological process when causation is natural, but a periphrastic construction when something is forced. As mentioned earlier, I attempted to elicit some causative constructions using *atipayay* “to force” but was unable to. At this time, I can say that CQ does not have connection to this parameter. However, I believe that further analysis of the verb *atipayay* is warranted.

The final parameter in Dixon’s system relates to involvement. Some languages can distinguish whether the causer was actively in the event he/she precipitated, or uninvolved. Kamaiura has two casuatives. The affix ‘mo-’ is used when the person initiates an event but does not participate. It also has ‘e(ro)-’, which it can use to express that the causer not only initiated the event, but participated as well. In English, “to have learn” and “to teach” would fall under this distinction (Saskena, 1982). “To have (someone) learn” is to make someone study while you may not be directly instructing them. “To teach” implies direct involvement in the learning process. Hindi distinguishes between these two forms of causation, while CQ does not make this distinction.

**3.4. Summary.** In this section I have presented the semantic implications of ‘-chi’. Dixon presented nine parameters based on verb, causee and causer. Below is a chart to illustrate where Cuzco falls within those parameters.

53) **Dixon’s Parameters Found in Quechua**

<u>Verb</u>		<u>Causee</u>			<u>Causer</u>			
State/ Action	Transitivity	Control	Volition	Affect- edness	Direct- ness	Intention	Natural- ness	Involvement
Yes	Yes	No	Yes	No	No	No	No?	No

**TABLE 3.**

#### 4. SUMMARY AND CONTRIBUTIONS.

This paper has provided a systematic presentation on the role and manifestation of the causative morpheme ‘-chi’. I have presented morpho-syntactic information illustrating the lexical relation structures in CQ. I have contrasted the manifestation of ‘-chi’ in intransitive, transitive and ditransitive constructions. I have presented syntactic representations showing that in some instances the overt ‘-chi’ can reside at the same node where an inherent causative resides. I have also presented the realization of the causative morpheme in change of state verbs. I have described some typical, or at least predictable, expressions in the impersonal construction in CQ. I have shown that, in these constructions, an overt causer must have an overt causative morpheme and that non-overt causer *can’t* have an overt causative morpheme. Lastly, I have shown that double causatives can exist in CQ, and while they are not productive, there may be a way to predict grammatical forms.

I have also placed CQ in a typological category. Using Song’s typology (1996), I have placed CQ in his Compact category. I have done this due to the fact that CQ allows only morphological processes to express causation. My attempts to find periphrastic constructions have revealed no tokens. With this in mind, I feel that Song’s Compact category is the most appropriate placement.

Last, I have attempted to describe some of the semantic implication of causation in CQ. I have examined Dixon’s (1996) parameters and determined which of the parameters are affected in CQ. Cuzco Quechua adheres to both parameters in the first Dixon’s first set. Causation affects both state and action verbs, as well as intransitive and transitive verbs. In terms of the parameters relating to the cause, Cuzco only recognizes the parameter concerning volition. Volition can be expressed using the instrumental ‘-wan’, and unwillingness with the accusative suffix ‘-ta’. This allows to expressions of ‘-ta’ to occur in the same phrase. There also appears to be a preference for ‘-man’ in some instances. Whether this preference is phonologically or syntactically constrained deserved further information. The final set of parameters, which deal with effects on the causer, does not play a role in Cuzco Quechua.

The benefit of this paper is that a systematic collection and presentation of the role and manifestation of the causative ‘-chi’ in CQ has never been produced before. The scattering of linguistic analyses do not cover the necessary morpho-syntactic, typological or semantic content which can be expressed by the use of ‘-chi’. As Dixon asserts previously in this paper, it is not enough to only state that there is valence increase on argument structure. There are typological and semantic implications to be considered here and previous analyses of CQ did not sufficiently address them. It is this lack of expository analysis that has prompted me to attempt to provide a more detailed description of the role and manifestation of causatives in CQ. This work incorporates all of these sub-disciplines of linguistics and adds to the existing literature. I have provided a baseboard for further analysis of these areas. In particular the, the area of double causatives, consecutive suffix duplication and object marker preference should be investigated.

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