Brigham Young University

BYU ScholarsArchive

Theses and Dissertations

2018-04-01

Switch-Reference in Pastaza Kichwa

Alexander Harrison Rice
Brigham Young University

Follow this and additional works at: https://scholarsarchive.byu.edu/etd

 Part of the Arts and Humanities Commons, and the Linguistics Commons

---

Switch-Reference in Pastaza Kichwa

Alexander Harrison Rice

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Arts

Janis Nuckolls, Chair
Chris Rogers
David Eddington

Department of Linguistics and English Language

Brigham Young University

ABSTRACT

Switch-Reference in Pastaza Kichwa

Alexander Harrison Rice
Department of Linguistics and English Language, BYU
Master of Arts

Pastaza Kichwa is a Quechuan language spoken in eastern Ecuador. This thesis describes its use of switch-reference which is traditionally understood to be an interclausal cross-referencing feature. Switch-reference is manifested by one of two morphemes that mark a subordinate clause as having either the same or different subject as another clause. Switch-reference has been described for other Quechuan languages and some of these studies present challenges to the theoretical underpinnings of switch reference (Stewart 1988, Dreidemie 2007) others present associated functions of switch-reference morphemes (Cole 1982). This study tests some of the propositions made about switch-reference in other Quechuan languages in Pastaza Kichwa.

The data comes from the Corpus of Pastaza Kichwa which is a collection of 40 narrative texts. A broad statistical analysis of the switch-reference morphemes in the forty texts verified a distributional pattern posited by Stewart (1988). A sample of five texts was used for a closer in context analysis to examine adherence to proposed typological rules of canonical switch-reference, to test Stewart's (1988) motivation for counter examples, and test additional functions proposed by Cole (1982).

Analysis and results indicate that switch-reference in Pastaza Kichwa does not obey all of the typological rules of canonical switch-reference. Stewart's proposed motivation proved inapplicable and potentially problematic, and that associated functions of switch-reference markers are due more to contextual factors rather than specific constructions.

Keywords: Quechua, switch-reference, corpora

ACKNOWLEDGMENTS

TABLE OF CONTENTS

LIST OF FIGURES

Chapter 1: Introduction

This work aims to provide an initial description of switch-reference in Pastaza Kichwa, a Quechuan language spoken in the Amazonian region of Ecuador. This is a challenging undertaking because despite a considerable body of work on switch-reference in several language families, van Gijn (2016) states that "it is still elusive as a phenomenon, in part because [switch-reference] is not a single-variable phenomenon, in part also because it has aspects in common with a host of related phenomena" (160). Switch-reference is an intricate system in that it intersects morphological, syntactic, and semantic domains. It typically employs one of two markers that indicate if the subject of one clause is the same or different as that of another clause.

The primary objective of this study is to describe switch-reference in Pastaza Kichwa by testing data against stipulations made in previous research about switch-reference. (1) I test the Dependency Condition, mentioned by Stirling (1993) as one of the basic components of switch-reference. (2) Second is Stewart's (1988) theory of discourse organization as the primary motivator of SR in Conchucos Quechua. This is Stewart's answer to apparent counterexamples that show instances of switch-reference morphemes not obeying the basic rules of switch-reference. This also explains why one of the switch-reference markers is more frequently used than its counterpart. I apply Stewart's ideads to Pastaza Kichwa to test their applicability to another Quechuan language. (3) Finally I test certain semantic functions of switch-reference marked clauses proposed by Cole (1982) for Imbabura Kichwa.

My data was drawn from a corpus of narrative texts of Pastaza Kichwa collected by Janis Nuckolls. All instances of switch-reference were marked, categorized, and counted. These examples were used in the tests. My findings regarding the tests are as follows. (1) Switch-reference in Pastaza Kichwa does obey the Dependency Condition only if assuming the existence

of unspoken underlying clauses and accounting for structural ambiguities surrounding quoted speech. (2) Stewart's theory of discourse organization is not applicable to Pastaza Kichwa. Furthermore, the results provided reasons to doubt the validity of that theory in general. (3) While some examples conformed to Cole's stipulated constructions, others did not. This indicates that for Pastaza Kichw, the semantic functions proposed by Cole do not require the specific constructions involving switch-reference that he presents.

The remainder of this chapter provides a short typological description of Pastaza Kichwa and a basic introduction to switch-reference. This sets up the apparent shortcomings of the standard descriptions of switch-reference and establishes conventions that I use throughout this work. Chapter 2 dives deeper into the particulars of switch-reference and reviews other studies of switch-reference in Quechuan languages. It shows the arguments made by Stirling, Stewart, and Cole and ends with my research questions. Chapter 3 describes my methods, data, and creation of the corpus. Chapter 4 shows the results of the basic statistical analysis I performed. Chapter 5 discusses those results and uses in-context examples to test the assertions made by Stirling, Stewart, and Cole. Chapter 6 concludes with a summary of the findings and discusses the limitations and implications for future work.

1.1 Pastaza Kichwa

Also known as Northern Pastaza Quichua [Iso code: qvz], Pastaza Kichwa (PK), belongs to the Quechua language family, spoken in South America throughout the Andes. There are still over 10 million speakers of Quechuan languages in South America and it remains the most widely spoken indigenous language of the Americas (Adelaar and Muysken 2004). PK belongs to the Quechua IIB branch which constitutes the dialects spoken in northern-western Peru, Ecuador, and southern Colombia. In Ecuador, Quechua is called "Quichua" which is often

spelled as "Kichwa" in accordance with recent orthography changes in Ecuador's Ministry of Education's revitalization efforts. PK is spoken by approximately 10,000 people, most in eastern Ecuador in the Pastaza region. The status of PK is considered threatened by Ethnologue, having an estimated 300 monolingual speakers as of 2007 (Paul, Simons, and Fenning 2016). Descriptive work of PK is represented almost entirely by Nuckolls' body of work on ideophones and phonology (1992, 2001, 2004, 2006, 2010, 2012, 2014, 2016), evidentiality (2012, 2014), and semantics, pragmatics, discourse, and narrative (1993, 1995, 2003, 2004, 2005, 2010, 2014 (with Tod D. Swanson), 2015). There is still need for descriptive work in morphology and syntax.

Like other Quechuan languages, PK is mostly nominative-accusative, exhibits SOV word order and agglutination, and uses switch-reference. PK and other Quechua IIB languages particularly those in Colombia and Ecuador, exhibit significant morphological deviations from the Quechua I group. Principle among them is the loss of personal reference markers indicating possession with substantives and those specifying the patient in verbs (Adelaar and Muysken 187). This is possibly a result of contact with now extinct Barbacoan languages that inhabited much of Ecuador before the imposition of Quechua (van Gijn 2016).

1.2 Introduction to switch-reference

I will now give a brief introduction to the basics of Switch-reference (SR) and illustrate with examples in PK, I will also show an apparent counter example that presents problems for the study of SR. SR systems are found in many language families of the world, principally in the Americas, Papua New Guinea, and Australia. Van Gijn (2012) posits that cultures that traditionally lack writing systems make use of SR as an economical and cohesive means of facilitating textual coherence and information transfer. In other words SR is a means of

packaging and retaining discourse information about syntactic subjects that might otherwise be difficult to retain in oral discourse for both the speaker and hearer. It is essentially equivalent to a writing system, allowing interlocuters to keep track of who is who without needing to write down such information.

The basic definition of SR is given in Haiman and Munro (1983) as an inflectional category of the verb, which indicates whether or not its subject is identical with the subject of some other verb. This is accomplished by suffixing the verb in one clause with one of two markers. One marker indicates that the subject of that verb is the same as that of an adjacent verb. These are glossed as 'same-subject' (SS). The other indicates that the subject of the verb is different than that of another adjacent verb. I illustrate below with two hypothetical examples in PK. The SS marker is realized in PK as *-sha*, and the DS marker as *-kpi*.

1. Same-subject switch-reference in PK
rima-**sha** yanu-ni
speak-**SS** cook-1SG
speaking, I cook
While speaking, I cook

2. Different-subject switch-reference in PK
rima-**kpi** yanu-ni
speak-**DS** cook-1SG
she speaking, I cook
While she speaks, I cook

Both examples contain two clauses, one verb per clause. The constituent structure is realized in terms of the clause containing the SR marked verb as being subordinate to the clause containing the other non-SR marked verb. SR marked verbs are understood to be non-finite, in that they are not marked for tense, aspect, and mood (TAM) content. Non-SR marked verbs are understood to be finite and contain TAM information. PK deviates from this paradigm as it allows the durative aspect affix *-w-* to be used in SR marked verbs.

A SR relation is typically conceived as the non-finite clause being subordinated by the finite clause. Some authors refer to SR marked clauses as 'adverbial clauses' and the non-SR marked clauses as 'main clauses'. To avoid using multiple competing terms I will use 'reference clause' (RC) to refer the SR marked clause and 'controlling clause' (CC) to refer to the clause with the finite verb. This because the CC is understood to 'control' the RC because the RC relies on the CC for TAM content. The constituent structure of examples 1 and 2 is shown below in examples 3 and 4. These examples show that the RC is embedded in the CC. The issue of subordination and embedding is important to the test of Dependency Condition mentioned by Stirling which I discuss in Chapter 2.

3. Same-subject SR constituent structure in PK
[[rima**sha**]   yanuni]
[[1SG speaking] 1SG cook]
        RC   CC
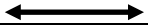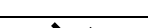
4. Different-subject SR constituent structure in PK
[[rima**kpi**]   yanuni]
[[3P speaking] 1SG cook]
        RC   CC

At this point I will introduce another convention that will be used throughout this work. In all examples I show arrows that show the linking of clauses as determined by the choice of SS or DS markers. They also show the aspectual relation between the linked clauses (simultaneous or sequential). This convention is similar to that used by certain varieties of Dependency Grammar which use arrows to show dependencies between all constituents in a given example. I only use this convention between SR marked RC's and CC's. Table 1 shows these conventions and hypothetical examples 5, 6, and 7 illustrate their use.

Table 1 SR conventions

Convention	Function
————	SS linkage
— — — —	DS linkage
◄————►	Events are simultaneous
————►	Events are sequential, arrow origin indicates first event and arrow point indicates second event
——✕	RC either links incorrectly to the CC or else has no CC

5. PK SS simultaneous example

rima-**sha** yanu-ni
speak-**SS** cook-1SG
While speaking, I cook.

6. PK DS simultaneous example

rima-**kpi** yanu-ni
speak-**DS** cook-1SG
While he/she speaks, I cook.

7. PK SS sequential example

Rima-**sha** chunllaya-ni
Speak-**SS** be.quiet-1SG
After speaking, I shut up.

There are counterexamples that appear to break the rules of SR. Example 8 shows a short chain of RC's. In a chain of SR clauses a RC clause is understood to be controlled by another RC clause which in turn is controlled by a finite CC. SR clause chains are discussed in further detail in chapter 2. Example 8 appears to break the basic rules of SR.

8. SR Counterexample
9
Chi-ta   ishku-sha Luzaura-ta   ku-ni   chi uras Luzaura ichilya ma-ra
It-ACC pluck-SS Luzaura-ACC give-1SG.PRS that time Luzaura small   be-3SG.PST
"And so plucking it, I gave it to Luzaura, who was little at the time."

10
Chi-ta ishku-**sha** ku-**sha** kuti chi chiwilya
It-ACC pluck-SS give-**SS** again that pineapple
"And so plucking it and again giving her that pineapple"
11
Pay-ba   panga a-ra
3.SG-POSS leaf   be-3.SG.PST
"There were its leaves."

There are two apparent problems with this example. Line constitutes 2 RC's 'plucking it' and 'giving again that pineapple'. The subject of both of these clauses is the narrator. The SS marker in the first clause links to the following clause, but the next SS marker has a problem. The subject of line 11 are the leaves of the pineapple. If we assume line 11 to be the CC then we would expect the SS marker in the second clause of line 10 to be DS, as there is a subject transition. The first subject being the narrator, the second being the pineapple leaves. If we point the linkage chain the other way we run into the same problem.

10. SR counter example, backward linkage chain
9
Chi-ta ishku-sha Luzaura-ta   ku-ni   chi uras Luzaura ichilya ma-ra
It-ACC pluck-SS Luzaura-ACC give-1SG.PRS that time Luzaura small   be-3SG.PST
"And so plucking it, I gave it to Luzaura, who was little at the time."
10
Chi-ta   ishku-**sha** ku-**sha** kuti chi chiwilya
It-ACC pluck-SS give-**SS** again that pineapple
"And so plucking it and again giving her that pineapple"

There are two finite clauses in line 9. The subject of the first is the narrator, the second is her daughter Luzaura. From the context we can infer that the subject of the RC's in line 10 is not Luzaura. Line 10 is a reiteration of the first clause in line 9. The narrator is restating that she gave the pineapple to Luzaura. This example breaks the rule in one of two ways. Either the rule incorrectly predicted the use of the DS marker, or else the RC does not require a CC.

Counterexamples like this crop up in many studies of SR in Quechuan languages. Many of these studies particularly those of Cole and Stewart attempt to find the motivation behind such

counterexamples and challenge the standard definition of SR. These studies among others are

discussed in Chapter 2 along with a more detailed description of SR.

Chapter 2: Review of Literature

This review of literature will provide important information about the elements of the present study and set up key research questions. This chapter will begin with a brief sketch of the target language, Pastaza Kichwa. Then an overview of the relevant literature on switch-reference is presented. The final sections address corpus linguistics and presents the research questions.

2.1 Typology of switch-reference

Since Haiman and Munro the definition SR has narrowed to a more specific typology. Stirling (1993) in critique of what she terms 'canonical' SR gives a useful overview of the formal and functional conditions of canonical SR (6-7).

1. The Locality Condition – The switch-reference relation holds between just two clauses. The relation between the marked and the controlling clause is a local one, i.e. the clauses are linearly adjacent.

2. The Dependency Condition – The marked clause is syntactically and semantically dependent on the controlling clause. Either the marked clause is subordinate to the controlling clause or marked and controlling clauses are in a clause-chaining construction. In a clause chaining construction a string of 'dependent' medial clauses is followed by a final 'independent' clause. The medial clauses are typically marked for switch-reference but lack some or all of the verbal inflection characteristic of independent clauses, such as tense, mood, agreement etc. The final clause is not marked for switch-reference but does have finite verb inflection, and this is assumed to apply to the entire clause chain.

3. The Realization Condition – Switch reference is marked by contrastive suffixation on the verb of the dependent clause. The order of the two clauses is [the reference clause followed by the controlling clause].

4. The Subject Condition – Let us introduce the term switch-reference pivot for the two NPs which are related by switch-reference marking. The switch-reference pivots are the surface syntactic subjects of the marked and controlling clauses.

5. The Functional Condition – Switch-reference functions to signal co/disjoint reference between the pivot NPs.

Through the examples shown so far, SR in PK generally adheres to these conditions but with some caveats. First in regards to conditions 4 and 5, PK like other Quechuan languages are often 'pro-drop' in that the surface syntactic representation of a noun-phrase is not necessary. As shown in the examples in Chapter 1 the subject does not need to be explicitly stated. Instead the person marking on the finite verbs in CC's is sufficient. Therefore, for Quechuan languages there need not be any NP, overt or otherwise to act as the pivot. Syntactic subjects themselves appear to act as valid pivots but need not be overt nor in a noun-phrase.

My research presents possible challenges for the Dependency Condition and the Realization Condition for SR in PK which I will address in turn. The Dependency Condition states that SR marked clauses are dependent on other clauses. In chapter 1 I described how RC's are dependent on CC's, that is drawn from this condition. The Dependency Condition also stipulates that chains of SR marked clauses must be 'capped' by a CC. Multiple RC's can control each other but there must be one CC that ultimately controls all of them. Example 1 comes from the corpus and shows how this works.

1. PK clause chain

9

Aswa-ta   alyi alyi ra-**sha**
aswa-ACC well well do-**SS**
Preparing preparing the aswa well

10

Yaku-ta   apa-**sha** yaku chi-ta   apa-**sha**
water-ACC take-**SS** water that-ACC take-**SS**
Bringing water, bringing that water

11

Manga-i lyapi   lyapi   ra-**sha**
pot-LOC squeeze squeeze do-**SS**
Squeezing squeezing the aswa in the pot

12

Hachi-ta   upi-chi-gri-ni   yaku pirtu-i   ri-**sha**
uncle-ACC drink-CAUS-TRLOC-1 water shore-LOC go-**SS**
Heading for the water's shore I go and give my uncle something to drink

  This example shows a rather complex clause chain in which five total RC's are controlled

by a single CC. Four of them come before the CC and one after. The subject for all clauses is the

same, hence the usage of the SS -*sha*. Figure 1 shows how we might represent the constituent

order. As the CC controls the RC's in two directions it is difficult to show the controlling by

means of embedding bracketed clauses. Instead I use a diagram in which triangles represent the

clauses and their positions showing which controls which.

Figure 1PK clause chain constituent order representation
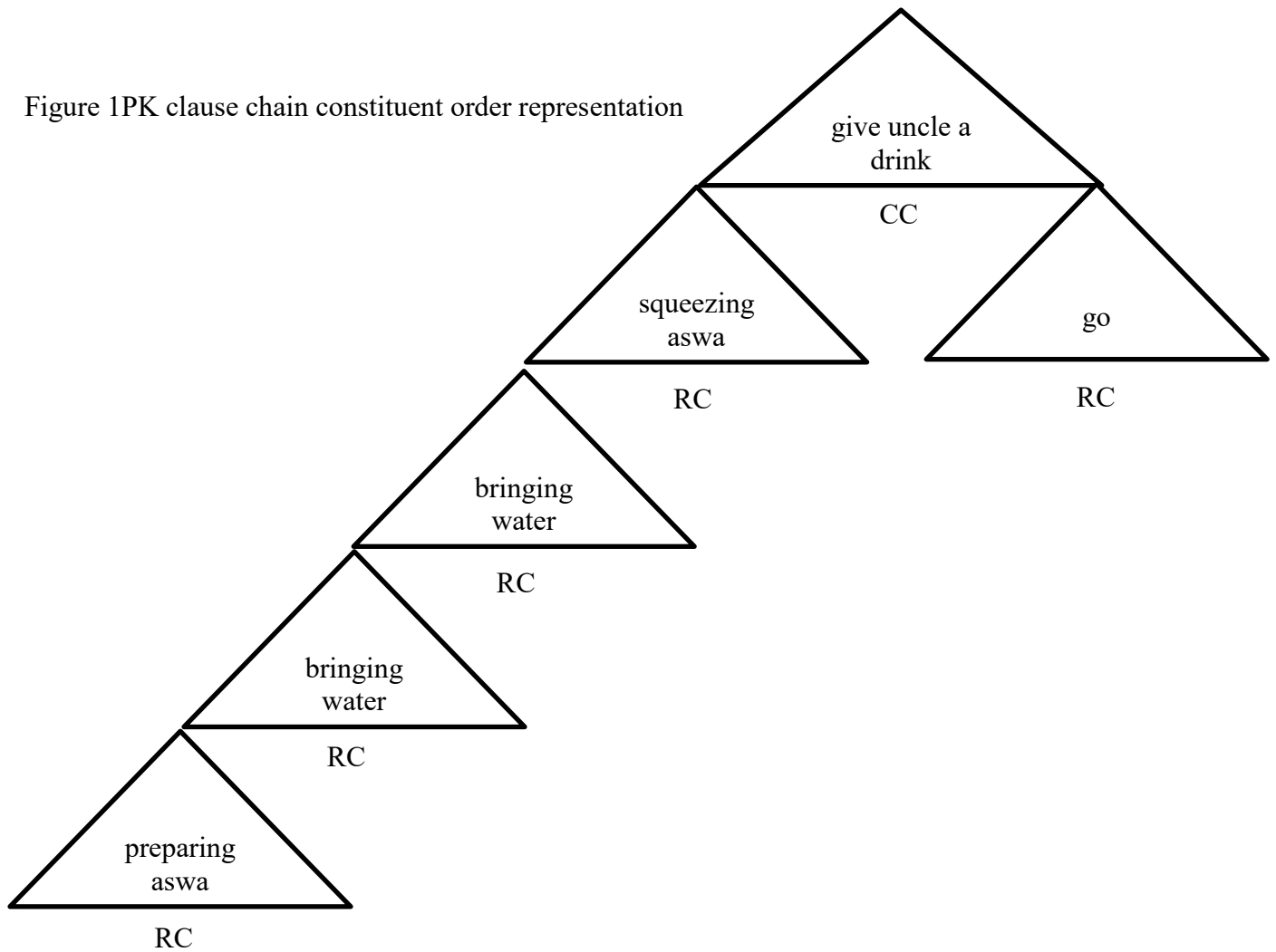
This illustrates the Dependency condition of how RC's are controlled by CC's. The chain of RC clauses is controlled by a final CC. In my data there are examples that appear to defy this condition. Those examples will be discussed in chapter 5.

The Realization Condition states two things. First that SR is marked by contrastive suffixation on the verb of the dependent clause. This is true of PK as described in 1.2. The second stipulation of the Realization Condition is that the order of the two clauses is marked followed by controlling. By this Stirling means that the SR marked clause is followed by the controlling clause. "In the majority of languages with switch-reference marking, marking is by suffixation on a dependent clause which precedes the controlling clause. This is a function of the constituent ordering characteristics of switch-reference languages, which tend to be OV, and

usually SOV." (23). This is supported in Foley and Van Valin (1984: 339) which state that SR is always associated with verb final languages and that SR morphemes anticipate an NP in the next junct. In other words, SR marked clauses refer only the to the following clause.

The PK clause chain in Example 1 appears to provide an exception to this rule. The CC not only controls the chain of SS marked RC's in front of it, but also controls a RC that follows it. Chapter 5 discusses this example and others in more detail.

2.2 Switch-reference in Quechuan languages

SR in PK and other eastern Ecuadorian Quechuas has a very small body of work. Orr (1962) provides a rudimentary description of SR in Napo Kichwa which is a closely related variety. Nuckolls (1996) also touches on SR and the SS marker *-sha* in particular. She describes a variety of semantic functions that SS marked clauses can have and their relationship with ideophones. This described in more detail in 5.5.1. Apart from those works there is not a lot of material on SR in PK or eastern Ecuadorian Quechuan languages. Therefore it was necessary to review the literate on SR in other in other Quechuan languages.

Before proceeding I must note that the examples of these other Quechuan languages come from the respective authors' own work. However, I have modified the glosses to facilitate simplicity. The source text itself and the translations are left unmodified. I also add the linking arrows established in Chapter 1 but I do not use the arrows indicating aspect except for Cole's (1982) examples in which the aspectual relations are stated by Cole in that same work.

A grammar of Huallaga (Huánuco) Quechua (Weber 1989)

Weber's (1989) grammar of Huallaga Quechua (HQ) [qub] touches on SR. Like PK, HQ uses the SS/DS contrastive suffixation. Weber and other authors like Cole (1982, 1983) call SR marked clauses 'adverbial' clauses as these clauses are thought to describe or modify the CC

clauses that control them. SR in HQ functions much the same way as it does in PK with some important differences. SR in HQ is more complex than that of PK. Firstly there are two possible morphological manifestations of the SS marker: *-shpa* and *-r*. Weber states that he was unable to determine a semantic difference between *-shpa* and *-r*. They appear to be interchangeable.

2. HQ SS *-shpa* (Weber 1989: 277)

```
maqa-rku-shpa-n hayta-ma-ra-n
hit-upon-SS-3     kick-1-PST-3SG
```
After he$_i$ hit him$_j$, he$_i$ kicked me.

3. HQ SS *-r* (Weber 1989: 277)

```
maqa-rku-r  hayta-ma-ra-n
hit-upon-SS kick-1-PST-3SG
```
After he$_i$ hit him$_j$, he$_i$ kicked me.

4. HQ DS (Weber 1989: 277)

```
maqa-rku-ma-pti-n hayta-shu-ra-yki
hit-upon-1-DS-3    kick-2-PST-2SG
```
After he$_i$ hit me, he$_j$ kicked you

      Another important difference is that the DS marker and the *-shpa* SS marker require person number suffixes as can be seen in examples 2 and 4. This is generally true of all Quechua I languages. In Chapter 1 I mentioned that Quechua II languages, which includes PK do not exhibit these person markers.

      Weber's analysis of SR generally conforms to Stirling's SR conditions. However, he states that there is some ambiguity in determining constituency in multiclause constructions using SR. "It is not always obvious what is subordinate to what. In fact, it can sometimes be quite subtle. Although there are some formal constraints on what can be subordinate to what, it is probably not possible to give a formal procedure for determining the subordination relations.

Extra-syntactic considerations certainly enter into determining the chains of subordination."

(279). Weber gives one such ambiguous example which I reproduce in example 5.

5. HQ ambiguous SR constituency (Weber 279)

taripa-q-naw   ka-**pti**-n mas-raq-shi   koori-y-ta   qalla-yku-n
catch.up.to-SUB-SIM be-**DS**-3 more-yet-IND run-INF-ACC begin-DIR-3SG
When he$_i$ was about ("as though") to catch up to him$_j$. He$_j$ began to run even harder (yet more).

Weber states that it is not clear whether the DS marked clause is controlled by the first clause or the final clause. This observation of the structural ambiguity potentially undermines the Dependency and Realization conditions but also calls into question the Subject Condition by mentioning extra-syntactic considerations as means of determining linking relations. The Subject Condition states that syntactic subjects constitute the pivot around which SR operates. If non-syntactic considerations also play a role then syntactic subjects alone cannot account for SR pivots.

Switch Reference in Two Quechuan languages (Cole 1983)

Cole (1983) analyses SR in two Quechuan languages Ancash Quechua (AQ) [qxo] and Imbabura Quechua [qvi], which I refer to as Imbabura Kichwa (IK). AQ is also a Quechua I language spoken in north central Peru. IK is a Quechua II dialect like PK and spoken in northern Ecuador. AQ SR is much the same as HQ's SR in having two variants for SS, namely *-r* and *-shpa* but with the important difference that the person markers are required only by the DS marker *-pti*. Examples 6, 7, and 8 illustrate.

6. AQ SS *-r* (Cole 1983: 2)

Lima-ta   chaa-ri-**r**,   rikaari-shaq amigu-u-ta
Lima-ACC arrive-after-**SS**, see-FUT   friend-my-ACC
After arriving in Lima, I will see my friend.

7. AQ SS -*shpa* (Cole 1983: 3)

chakra-chaw urya-**shpa**, pallamu-rqu-u wayta-kuna-ta
Field-LOC   work-**SS**   pick-PST-1   flower-PLU-ACC
While I worked in the field, I picked flowers.

8. AQ DS (Cole 1983: 3)

chakra-chaw urya-**pit**-i   Maria pallamu-rqu-n wayta-kuna-ta
field-LOC   work-**DS**-1 Maria pick-PST-3   flower-PLU-ACC
While I worked in the field, Maria picked flowers.

Unlike Weber, Cole does posit a notable semantic difference between SS markers -*r* and -*shpa*. -*r* is used when the events in the two clauses are 'related' and -*shpa* when the events are 'unrelated'. In example 6 the events in each clause are related. In example 7 the events in the two clauses are unrelated. "In [6] my arrival in Lima makes it possible to see my friend. Hence -*r* is used. In contrast in [7] I am engaged in two unrelated activities: working in the field and picking flowers. As a result, the suffix -*shpa* is employed." (3).

The notion of related/unrelated events may be better understood as a causal relation. In example 6 the events of the SR marked clause (arriving in Lima) are necessary for the event in the main clause (seeing my friend) to happen. In example 7 the events of the two clauses could be argued to be related, but there is not necessarily a causal relationship. I expand on the problems with this notion in Chapter 5.

SR in IK retains only one SS marker -*shpa*. The DS marker is realized as -*jpi*. They do not require person markers on SR markers as do HQ and AQ. Cole states that is because of a notable morphological characteristic of the Ecuadorian Quechua dialects, namely the absence of nominal possessive suffixes (5). I touch on this note briefly in Chapter 1, PK also lacks these nominal suffixes. Cole also argues that subjunctive clauses in IK manifest a type of SR. Subjunctive clauses (using a different set of markers) operate in a SR like relationship but not

nearly as predictably as standard SR. To explain this Cole posits a person hierarchy in which the agentivity of the subject affects the use of SS/DS marking. However, this agentivity hierarchy is only for the subjunctive use of SR which is contested by Cohen (2013). The question of whether subjunctive clauses operate in a SR relationship is beyond the scope of this study and I will not discuss it.
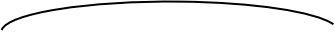
Imbabura Quechua (Cole 1982)

Cole's (1982) grammar of IK covers SR and Cole presents constructions utilizing SR markers to create specific semantic functions. "It should be noted that -shpa and -jpi clauses and their analogues in Quechua languages contain no temporal conjunction like English when, while, etc. -shpa and -jpi clauses may be used to express time, manner, and condition. Certain devices often allow one to distinguish the use to which an adverb clause is employed." (62). I will review what Cole terms time, manner, and condition clauses in turn.

Cole states that there are a number of ways to create what he calls time clauses in IK. One of these ways uses SR which marks the clause in time in relation its CC. As previously stated in 1.2, the tense of the RC is understood to the same as that of the CC. Examples 9 and 10 show SS and DS time clauses in IK.

9. IK SS time clause (Cole 1982: 61)

Kitu-man chaya-**shpa-mi** rijsi-ta   riku-rka-ni
Quito-to arrive-**SS-EV** acquaintance-ACC see-PST-1SG
When I arrived in Quito, I saw a friend

10. IK DS time clause (Cole 1982: 61)

Ñuka Kitu-man chaya-**jpi-mi** rijsi   riku-wa-rka
1SG Quito-to arrive-**DS-EV** acquaintance see-me-PST.3SG
When I arrived in Quito, a friend saw me
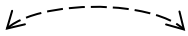
Note in this example, both the SS and DS markers are suffixed by the evidential marker -*mi*. Cole states: "-*mi* marks the focus of the sentence. This is appropriate for the expression of time clauses (roughly translatable as 'it was when…') and manner adverbials, both of which often constitute the focal element of the sentence. (65).

In order to distinguish aspectual relations (whether the events in the clauses occur simultaneously or sequentially), the durative suffix -*ju* is attached to the root of the verb in the RC and followed by the SR suffix to show that events in the clauses are simultaneous as example 11 illustrates. In these next examples I will return to using the arrows that indicate aspectual relations as shown in Table 1 in 1.2.

11. IK simultaneous time clause (Cole 1982: 61)

ñuka trabaja-**ju-jpi-mi**   kan puglla-ngui
1SG work-**DUR-DS-EV** you play-2SG
While I work, you play.

Cole states that there are two other ways to show a sequential relationship between clauses, but they do not utilize any SR marking. Though it is not stated by Cole It follows that if the durative is used to indicate simultaneity between the RC and CC. Then the lack of the durative on the SR marked verb may indicate a sequential relation.

Aspect is tied directly to Cole's notion of manner clauses. "Manner clauses may be expressed in two ways. When the action expressed in the manner clauses is viewed as closely related to that in the main clause, the suffix -shpa [SS] may be used." (63). The other option is using reduplicated infinitives in place of a SR marked verb. Cole seems to exclude the possibility that the DS marker can be used in manner clauses. Manner clauses are all understood to contain events that are "related" as Example 12 shows.

12. IK SR manner clause (Cole 1982: 62)

Kanda-**shpa**-mi shamu-rka-ni
Sing-**SS**-EV   come-PST-1SG
I came singing

These events are understood be related in that the singing describes the manner in which

the subject came. If follows that the events in 12 are simultaneous despite Cole stating that the

durative suffix *-ju* is necessary for indicating that events in SR marked RC's occur

simultaneously as the events in the CC's. Example 12 lacks that suffix. Therefore if 11 and 12

are both simultaneous then it follows that the durative is not required to indicate simultaneity.

The second way to indicate a manner clause is by using what Cole calls *-y* reduplicated

infinitives in place of a SR marked verb. It can be used if the events in the clauses are related or

unrelated (62) as 13 shows.

13. IK reduplicated -y infinitive manner clause (Cole 1982: 62)
kwitsa-kuna-ta ali **riku-y**   **riku-y**   trabaja-rka-ni
girl-PLU-ACC well **look-INF look-INF** work-PST-1SG
I watched the girls and I worked' OR 'While I watched the girls I worked

If the events are unrelated the SS marker *-shpa* can be used, but this is only acceptable if

the aspectual relationship between the two clauses is understood to be sequential. This is a

confusing concept, examples 14 and 15 illustrate.

14. IK SR unrelated clause (Cole 1982: 63)

kwitsa-kuna-ta ali   riku-**shpa** trabaja-rka-ni
girl-PLU-ACC well look-**SS**   work-PST-1SG
First I looked at the girls, then I worked

15. IK SR ungrammatical manner clause (Cole 1982: 63)

kwitsa-kuna-ta ali   riku-**shpa** trabaja-rka-ni
girl-PLU-ACC well look-**SS**   work-PST-1SG
*"I watched the girls while I worked"

Despite having identical content, the translation for 13 is acceptable while 14's translation is not. 13 is only grammatical if the sequence of events is understood to be sequential and not simultaneous. "The watching of the girls is seen as extraneous to work. Thus, the use of a -*shpa* clause is ill formed… [The example] is grammatical that the actions took place sequentially: 'first I looked at the girls, then I worked.')" (63). Since the events are sequential and therefore not related, then it does not constitute a manner clause. "The distinction between related and unrelated manner clauses is not unique to [IK]. It is found in Ancash Quechua, in which -*r* corresponds roughly to -*shpa* and [AQ] -*shpa* corresponds roughly to reduplicated -*y* infinitives." (63). This ties into Cole's notion of Quechua IIB languages reducing the two manifestations of SS to one marker instead of two. When -*r* was lost, -*shpa* switched from meaning 'unrelated' to 'related' and the reduplicated -*y* infinitives moved in to take -*shpa*'s place as meaning 'unrelated'. This is also confusing so Table 2 shows this dynamic.

Table 2 Manner in AQ and IK

AQ	IK	Manner
-r	-shpa	related
-shpa	Reduplicated -y infinitives	unrelated

There are a couple of potential problems with this analysis. First is an apparent contradiction, Cole states that the reduplicated -*y* infinitives can be used for both related and unrelated events, but he also says they are 'roughly' equivalent to AQ's SS marker -*r* which is for related events. The second issue is this very convoluted system relies on a somewhat arbitrary notion of what constitutes relatedness. Example 14, it could be argued that the 'watching of the girls' is a valid manner in which the event of the second clause 'I worked' occurred. Furthermore, the notion that the aspectual relation (simultaneous vs. sequential) is partially determined by manner conflicts with Cole's other stipulation of the presence or absence of the durative suffix also determining relatedness.

Conditional clauses can also be created using SR in IK. Both SS and DS markers can be used. "Condition clauses are distinguished from time (and manner) clauses by context and by the use of the independent suffixes *-ka* 'topic' and *-mi* 'focus'. The suffix *-ka* is typically used in condition clauses. This suffix indicates that the constituent to which it is affixed is old or background information. Thus, it is naturally used in contexts in which conditional clauses are used in other languages." (65). Note the important caveat that context is also an important component in identifying conditional clauses. This is an important point that I discuss further in Chapter 5. Examples 16 and 17 come from Cole and show the usage of the topicalizer *-ka* to create conditional constructions.

16. Conditional SS in IK (Cole 1982: 64)

Utavalu-ma ri-**shpa-ka**   ruwana-ta   randi-sha
Otavalo-to   go-**SS-TOP** poncho-ACC buy-1SG.FUT
If I go to Otavalo, I will buy a poncho.

17. Conditional DS in IK (Cole 1982: 64)

Ñuka astaka kulki-ta   japi-**jpi-ka**   ñuka tayta ishkay llama-ta   kara-wa-nga
1SG   much money-ACC have-**DS-TOP** my   father two   sheep-ACC give-me-FUT.3SG
If I make a lot of money, my father will give me two sheep

Cole states that attaching the evidential *-mi* to a SR marker can also be used to create a conditional clause but does not give any examples. Cole also notes that these examples could be translated with 'when' instead of 'if'.

An interclausal agreement approach to switch-reference in Quechua (Assman 2012)

Assman (2012) shows how SR works in the minimalist program, which is the current iteration of Chomsky's (1995) theory of Universal Grammar . Assman argues that SR does not constitute its own morphosyntactic category but instead is a realization of a tense feature valued via an Agree operation. I will summarize how this operates. In the Minimalist Program, a word

such as a verb receives its values (tense, aspect, mood, person marking, etc) from nominal heads which enter the derivation already valued. This operation is called 'Agree' and a successful agree results in the correct morpheme being chosen during vocabulary insertion. Assman argues that there is an interclausal tense Agree operation that motivates SR. First, the non-finite verb in the adverbial clause probes the nominal constituent within the same clause and receives values for ϕ features (person and number), this is called ϕ Agree. However this operation does not value the verb for tense, therefore the verb sends another probe to the following clause to value its tense feature from the finite verb. If the subjects of the two verbs are the same, the tense feature is correctly valued. This manifests itself as the SS marker in vocabulary insertion. If the subjects do not agree a default value is assigned to the verb to prevent the derivation from crashing. This is the DS marker. Note that though Assman conceives of SR as a Tense feature and not its own morphosyntactic category. The selection of the SS or DS markers pivots on the identities of the subjects in the respective clauses.

Assman's work has limited relevance to this study of SR in PK. Her program hinges on the assumption that all SR marked clauses are nominalized and argues against Cole (1982) and Weber (1989) who argue that SR marked clauses are verbal rather than nominalized. SR marked clauses are nominalized because of the person markers that follow SR markers in most Quechuan languages. The Quechuan II languages of Ecuador however lack these person markers and thus it's difficult to classify Ecuadorian Quechuan SR marked clauses as nominalized. Assman acknowledges this and states "I do not provide an explanation for the dialectical variation concerning the occurrence of person agreement markers in switch-reference contexts since it goes far beyond the aims of this paper. Presumably, there are dialect-specific morphological cooccurrence restrictions for switch-reference markers and person agreement markers." (143).

Stewart (1988) describes SR in Conchucos Quechua (CQ) [qxo] which like AQ is another Quechua I language. Stewart encountered examples in her data that ran counter to some of the standard functional conditions of SR. Example 18 illustrates.

13. CQ SR SS counter-example (Stewart 1988: 775)
1
Tsayta-naw arash-ta   rika-yku-**r**-qa
That-SIM   lizard-ACC see-up-**SS**-TOP
"Seeing the lizard like that,
2
Mayu yaku-man   away-yku-**r**
River water-GOAL go-up-**SS**
going up to the river,
3
Pasaypa shonqu-n tikra-**pti**-n
Greatly heart-3   turn-**DS**-3SG
his heart being quite shocked,
4
Usha-paku-naq-tsu   shimi-n-ta   moqtsi-ku-y-ta
End-diffuse-NARPST-NEG mouth-3-ACC rinse-RFLX-INF-ACC
he didn't stop rinsing his mouth."

There are two subjects in this clause chain, the man and his heart. The man is the subject of lines 1, 2, and 4. His heart is the subject of line 3. The first problem arises in line 2. The clause is marked SS and the Realization Condition states that a RC anticipates the clause it refers to. Therefore line 2 references line 3. The subject of line 3 is the heart, meaning that we would expect line 2 to be marked with DS rather than SS if it anticipates the next clause. So either line 2 is marked 'incorrectly' or the Realization condition was violated and SR in CQ does not need to look forward.

The next example challenges the Subject Condition which states that the syntactic subject is what constitutes the pivot of SR. The context for this example is a man bidding farewell to his mother.

14. CQ SS DS counter example (Stewart 1988: 778)

waqa-**pti**-ki-lla-qa-m,   maldiciona-yka-ma-nki-man-pis
cry-**DS**-2SG-just-TOP-DIR curse-up-to me-2SG-COND-even
"Just by crying, you might even place a curse upon me."

There are two clauses in this example separated by the comma. The subject of both

clauses is the same, the second person subject. The crying and the potential cursing are both

actions of the mother. However, The DS marker is used when we would expect the SS marker.

From these and other examples Stewart posits that the traditional framework for SR at the

time was insufficient. "The claim made in this paper is that switch-reference in Quechua is

ultimately motivated by discourse semantic considerations. The key issue is not verbal cross-

referencing in the syntax, but participant reference in the discourse." (778).

Stewart's notion of participant reference arose from observations about the distribution of

the SS and DS markers in discourse. Her data showed that the SS marker occurs much more

frequently than the DS marker. Examining this distribution in a procedural text on the

preparation of wheat, Stewart reports: "Returning to (25) the excerpt from the procedural wheat

preparation text, we note that the clause which receives the SS marking is that clause which

encodes the actions of the agent in the wheat preparation, the primary, in fact, only participant in

the text. In this text, which contains a total of 66 clauses, 31, or almost half, are marked for

switch-reference. Of those switch-reference clauses only 7 are marked for DS; none of those 7

refers to the wheat preparer, only to the current state of the ingredients in the preparation. The SS

marking in (25) references the *central* participant in the discourse." (778-779).

She found similar results in a personal narrative text: "Turning again to (26) from a 65-

clause Farewell Text, the central participant is the speaker himself, who is expressing his own

attitudes about going, and making certain requests of those he is leaving behind. Not a single of

the 6 DS clauses he uses refers to himself. Here, the DS marking indicates that the participant being referred to at this point, the speaker's mother, is *distinct* from the central participant in the discourse, the speaker himself… Furthermore, the Conchucos switch-reference system, although a binary one, is certainly not symmetrical. That is to say, as far as statistical frequency, the SS *-r* is far more common than the DS *-pti*. In the wheat preparation text mentioned above, for example, out of the 31 switch-reference clauses, the majority, or 24, are SS. Of the 7 which are DS, none of these encode *action* engaged by the active participant in the text, the preparer of the wheat. In the Farewell Text, similarly, 14 out of 20 switch-reference clauses are SS, and only 6 are DS. In a narrative about a burro's adventures, composed of 52 clauses, there are eighteen SS switch-reference clauses and *no* DS switch-reference clauses." (779-780).

These observations led Stewart to posit her theory of participant reference as being able to override syntactic constraints on SR. "Examples such as these provide evidence that the switch-reference system in Conchucos Quechua is not based only on local syntactic considerations, but on global discourse factors. If individual instances of switch-reference are considered in their discourse context, instances which 'break syntactic rules, however defined, are seen to be perfectly consistent at the discourse level; if, that is, the notion of central, or focal participant has 'overridden' the syntactic pattern. These violations are not ad hoc mistakes, but in obedience to a 'higher' rule, that of discourse organization." (779).

This rule of discourse organization operates on classifying all subjects as one of two categories. Central participant or non-focal participant. "If we consider that most texts focus on one central participant or topic at a time, we can see that the SS marker is the 'default' case for that central participant or topic, and that the DS marker is an attention-drawing device signaling non-focal participants, actions, or states of affairs which are peripheral to the main event line or

topic strand of the discourse." (779). Therefore, SS is used for encoding the actions of central participants and DS for those of non-focal participants. It is helpful to think of this distinction as SS being used for 'main characters' and DS for 'supporting characters'. This classification of subjects is Stewart's higher rule of SR which takes precedent over the formal and functional conditions of canonical SR. It accounts for all of Stewarts counter examples. In Example 13 the man's heart is a non-focal subject of the narrative and thus accordingly marked as DS despite violating the syntactic rules. The same goes the narrator's mother in example 14.

Aproximación al sistema de cambio de la referencia ('Switch-Reference') en Quechua Boliviano: Perspectiva gramatical y discursiva sobre el contraste -ʃpa -xti (Dreidemie 2007)

In a similar vein as the current study Dreidemie (2007) explores syntactic, semantic, and pragmatic implications of the SR markers in Southern Bolivian Quechua [quh] (SBQ), a Quechua II C language. Dreidemie's data come from a corpus of approximately 15 hours of recordings of informal conversational speech from Bolivian migrant workers in Argentina. Like Ecuadorian Quechua, Bolivian Quechua also features the simpler binary SR distinction, one marker for SS and another for DS. The main difference being that the DS marker requires a person suffix like the previously mentioned Quechua I varieties.

Like Stewart (1988), Dreidemie's conclusion is that the syntactic dimension of SR is only a part of the picture and by itself cannot completely motivate the use of SR. This was made evident by a number of examples from Dreidemie's data. I show two of them below.

15. SBQ SR DS counter example (Dreidemie 2007: 91)

Ayca-ta   kucu-sha-**jti**-n   maki-n-ta   kucu-rqa-ku-n
Meat-ACC cut-PROG-**DS**-3SG hand-POSS.3SG-ACC cut-PST-RFLX-3SG
"He cut his hand while he was cutting the meat."

16. SBQ SR DS counter example 2 (Dreidemie 2007:91)

uqya-**jti**-yki-qa　　wañu-nki
drink-**DS**-2SG-TOP die-2SG
If you drink, you die.

Operating under the purely syntactic driven motivations, SS would be the expected marker in both of these examples. Both examples 15 and 16 contain two clauses. Each clause has the same subject. Much like this study, Dreidemie does not dive into the particulars of what motivates these apparent exceptions. For Example 15 she hypothesizes that flouting the SR rules may be due to semantic structure of the verbs and semantic roles of the referents. For example the fact that the subject in the first clause is an agent while in the second clause that subject is reflexive. For Example 16 the use of the conditional may be overriding the subject tracking function of SR.

Dreidemie makes the important point that nearly all of the examples that flout the rule of strict subject reference are DS marked clauses. She adds that DS marked clauses are perhaps more able to 'get away' with flouting the rule because DS marked verbs in SBQ require a person suffix which makes the clause more finite and prevent possible confusion of reference.

In sum, Dreidemie's conclusion is much the same as Stewart's in that there are non-syntactic considerations that drive exceptions to the formal and functional conditions of Canonical SR. Both also agree these overrides are used as attention drawing devices. The principal difference is that Dreidemie simply considers a variety of semantic and pragmatic elements that may attribute to counterexamples while Stewart proposes one specific theoretical mechanism to account for all counterexamples.

2.3 Aims and Objectives

Based on this literature there are certain elements that I tested in my analysis of SR in

PK. My research questions are given below along with explanation. First it was necessary to test the formal and functional conditions of canonical SR as outlined by Stirling (1993). All conditions were considered, but special attention was given to the Dependency and Realization conditions.

1. Does switch-reference in Pastaza Kichwa obey the Dependency Condition? (Are SR marked clauses always dependent on finite controlling clauses?)

2. If PK obeys the Dependency Condition, does switch-reference in Pastaza Kichwa obey the Realization Condition? (Do SR marked always precede their controlling clauses?)

Second, I wanted to apply Stewart's (1988) theory of Discourse Representation to PK and determine if it is valid motivator for SR in PK. This includes two parts. The first is testing Stewart's claim made for CQ that the SS marker is used much more frequently than the DS marker. The second part investigates the applicability of the central vs. non-focal participant system to PK. If I classify each subject as either a central or non-focal participant in Stewart's terms I should find that SS is consistently used to mark RC's of the central participants and DS used consistently on non-focal participants.

3. Does the SS marker occur more frequently than the DS marker?

4. Is Stewart's (1988) basis of Discourse Representation theory (central vs. non-focal participant) applicable to PK?

The final set of research questions investigate some of the specific constructions and functions posited by Cole (1982). It is important to note that Cole stated that there are multiple ways to create those constructions and that they *can* serve those functions. In addition I investigate Cole's notion of aspect in SR marked clauses.

5. Can the combination of a SR marker plus the topicalizer create conditional constructions?

6. Can the combination of a SR marker plus the evidential suffix *-mi* create a time clause?

7. Does a specific form signify the aspectual relationship between a SR marked clause and its controlling clause?

Chapter 3: Methodology

3.1 The Corpus

Corpus linguistics (CL) is a tool of data driven linguistic inquiry which uses a databank of natural texts and concordancing software to discover patterns of authentic language use (Krieger 2003). The underlying premise of CL is to provide a more objective view of language by revealing patterns not immediately obvious to a speaker or researcher. The inherent numerical dimension of corpus linguistic data makes statistical analysis particularly pertinent to discovering linguistic patterns. I found CL methods to be highly useful in the present study for determining the distribution and co-occurrence SR markers and other affixes.

A secondary purpose of this study is to show that using CL methods in documentary linguistics is a fruitful endeavor. CL has only recently been utilized in studies of indigenous and marginalized languages because of obstacles such as lack of standardized writing systems and lack of large collections of publicly available texts. There are other corpora of Quechua such as Dreidemie's (2007) natural speech utterances corpus of Bolivian Quechua and others currently in development including the LAC Cusco Corpus (Max Planck Institute for Psycholinguistics 2014) and Floyd's 150,000-word Imbabura Quechua Corpus (Floyd 2016). As there was no digitized corpora of PK it was necessary to create my own and this research is among the first corpus driven studies of Quechua. In this section I briefly describe the content and creation of the Corpus of Pastaza Kichwa (COPK).

At present, COPK is comprised of 40 texts consisting of 30,349 total words. These texts come from primarily from the Quechua Collection of Janis B. Nuckolls from the Archive of Indigenous Languages of Latin America (AILLA) based at the university of Texas Austin. Others come from the fieldwork of Tod D. Swanson of Arizona State University. The texts are

transcriptions of recordings of narratives from a single native speaker, Luisa Cadena. The texts from the AILLA collection are scanned images of handwritten documents, the first step to make the documents corpus ready was to manually re-transcribe them into electronic text documents.

The second step was to standardize the orthography. The original documents from the AILLA collection were transcribed with Hispanicized spelling conventions. Swanson's texts were transcribed with a mixture of various conventions used by different Kichwa speakers. The texts from both sources needed to be standardized. The orthography I used is based on Kichwa Unificado (Ministerio de Educación del Ecuador 2009) which is a modern spelling convention designed to be used for all varieties of Quechua spoken in Ecuador. The major distinction from Kichwa Unificado that I employed was the retention of the distinction between voiced and voiceless obstruents. A summary of the orthography changes is given in Figure 2. The # symbol indicates a word boundary.

Figure 2 Examples of orthography revisions

qu/c -> k	ñuca -> ñuka (1SG/1POSS)
hu -> w	huahua -> wawa (child)
#j -> h	jacu -> haku (let's go)
i# -> y	pai -> pay (3SG)

Each of the texts was annotated with a header containing information such as the title of the narrative, genre, the speaker's name, sex, dialect, name of the contributor (researcher who collected the data), and the location in which the source can be found. I include this information because in the future I plan to expand COPK to include other speakers and genres.

The next step was to develop a tag set that could mark the morphemes in question. I wrote a series of programs that detect various suffixes, such as types of evidential enclitics (EVs and EVo), topicalizers (TOP), and the two SR markers (SS and DS). Another program appended the gloss of those elements to the words containing them. The tagged texts are then stored in a

separate directory for use with concordance software. Figure 3 shows a sample of a tagged text

(bolding added to show what the tagged elements are). It is important to note that the texts are

tagged only for SR markers, evidentials, and topicalizers. Evidentials and topicalizers are tagged

because COPK's pilot study examined interactions between SR, evidentiality, and topic.

Figure 3 Sample of tagged text file

```
niunimi___EVs
fawstoga___TOP
illapata___
paskasha_V_SS_
apakgashi___EVo
nishka___
chi___
rikugrikpi_V_DS_
armawshkashi___EVo
```

Words marked with SR (either SS or DS) are verbs and thus marked as being a verb

along with the SR category. Not all words in COPK are tagged as I have not yet developed a tag

set for all grammatical categories nor additional morphemes. This is another element of COPK

that will be expanded in the future. For now, the tag set only catches the morphemes relevant to

the study of SR. With the texts tagged I wrote a series of scripts to count and sort the total

number of SR marked verbs.

3.2 Analysis

With the counts generated I could then perform statistical analyses to determine if there

are significant differences in their distribution. This was one of the initial goals of the pilot study,

but it is still relevant to this study because it is part of the evaluation of Stewart's (1988)

Discourse Representation theory which operates on the assumption that the SS marker is many

times more frequent than the DS marker. So the question arose: what is the correct way to

measure this? Rate of occurrence, for example, meaning a normalized frequency per set number

of words, would not be very helpful as it's essentially impossible to determine when the correct

context for the usage of these features could even occur. Therefore, measuring X occurrences of the feature per Y number of words is not a very good metric for determining significant distributional patterns.

Instead I set the envelope of variation as the total occurrence of the category itself and compare the counts of the variants of that category. The envelope of variation refers to the sum of the probabilities of all variants. Therefore, the total count of SR morphemes is the envelope in which the two variants SS and DS are compared. This produces a much better metric for determining statistical differences in usage between SS and DS. Since two groups are being compared I used a chi-square test to determine if the differences between the counts of comparable features is due to chance or significant. The results of the test are given in chapter 4.

A statistical analysis alone is not sufficient to evaluate meaning and function of the SR morphemes. Not only do they act as connectors between clauses but some of the literature states that their usage is very context dependent. Therefore, it was necessary to examine a number of instances of these morphemes in context which requires glossing and translating of the corpus material. Translating and glossing all of the material in the 30,349-word corpus would be a massive undertaking. Therefore it was necessary to do an in-context analysis of a sample of the corpus. That sample is described in sub section 3.2.1. In the sample each occurrence was evaluated and marked similar to the method used by Pustet (2013) in study of SR in Lakota. Pustet also utilized CL and quantitative methods to evaluate a set of Lakota clitics that some researchers classify as SR. Pustet created a series of parameters, each parameter with a binary value. Each instance of the suffix was examined in context and given values for each of the parameters. I adapt this system for my in context review of SR markers in PK. Each SR marker it

was marked for having a value of the following four parameters. The values were totaled for each text in the sample.

Aspect: simultaneous/sequential
Dependency: dependent/independent
Subject: (subject is identified)
Conditional: +/-

With each instance of an SR morpheme marked as such and evaluated in context, it provided a suitable manner to approach some of the research questions outlined in Chapter 2. I restate them here.

1. Does switch-reference in Pastaza Kichwa obey the Dependency Condition? (Are SR marked clauses always dependent on finite controlling clauses?)

2. If PK obeys the Dependency Condition, does switch-reference in Pastaza Kichwa obey the Realization Condition? (Do SR marked always precede their controlling clauses?)

3. Does the SS marker occur more frequently than the DS marker?

4. Is Stewart's (1988) paradigm of central vs. non-focal participants as a driver of SR applicable to PK?

5. Can the combination of a SR marker plus the topicalizer create conditional constructions?

6. Can the combination of a SR marker plus the evidential suffix *-mi* create a time clause?

7. Does a specific form signify the aspectual relationship between a SR marked clause and its controlling clause?

The Aspect and Conditional parameters will address questions 5 and 6. The Dependency parameter addresses 1, and the Subject parameter addresses 4. Question 3 is addressed by the previously described statistical analysis. The data proved ambiguous for questions 2 and 7 because assignment of parameter values to whether or not a SR clause was a time clause or proceeded or followed its controlling clause did not prove useful. Therefore it was best to

examine some in context examples and discuss the implications in regards to 2 and 7.

3.2.1 Sample text summaries

Context is crucially important when evaluating a feature like SR which involves multiple clauses. Stewart (1988) and Pustet (2013) emphasize the importance of analyzing SR within the narrative context. Chapter 5 reviews several examples and instead of recounting the context of each narrative multiple times I simply provide a detailed summary of each sample text here. The examples in Chapter 5 are given with the title of the text they come from. If necessary, the reader can refer back to this section to review the summaries.

1. The Chikwan speaks

When Luisa was a child her uncle Emision, the local shaman was violently murdered by some men from a rival community whom she calls the Awka. Luisa's aunt Lola heard the distinctive call of a bird called a chikwan earlier that morning which was taken to be an ill omen. That day Uncle Emision was in a drug-induced altered state, lying in his hammock and when word of an incoming canoe filled with armed Awka reached Luisa's community, he refused to flee despite Aunt Lola's warnings. The Awka arrived and everyone save uncle Emision fled to cover and watched the confrontation. The Awka blamed Emision for a series of deaths and unfortunate events in their own community and proceeded to repeatedly shoot him with their firearms. The Awka left and the family approached the still living uncle Emision, he pronounces some last words and then dies. Luisa describes the state of his mutilated body, comparing it to a dying animal. Relatives from nearby arrive and mourned along with Emision's family.

2. Canoe of Death

This narrative also comes from Luisa's childhood and describes the death of another one of Luisa's uncles who is unnamed in the story. It follows a similar vein to the previous narrative

in which an ill omen portends the death of a family member. The uncle was constructing a canoe when in a stroke of bad luck, the unfinished canoe split in half and the uncle's many months of work went to waste. Luisa states the splitting of the canoe portended the death of her uncle. And not long afterwards he became sick while hunting and died.

3. My first pregnancy

Luisa recounts the experience of her first pregnancy. She describes how a neighbor taught her to recognize the physical signs of pregnancy, nausea brought on by morning sickness, and the fear and pain she felt shortly before delivery. One of Luisa's aunts was a midwife and came to assist in the delivery, while Luisa's husband, equally terrified, did not assist until after the delivery. She safely delivered a baby boy and she and the baby were cleaned. Luisa's husband was elated that the baby was a boy but Luisa was traumatized by the experience and considered leaving her husband in order to not go through the near death experience again. Additionally, Luisa describes how she had a distinct premonition that the baby was to die, which it eventually did.

4. Adopting an Anaconda

Later in Luisa's life as an adult with a home and several children she discovers a baby anaconda in her garden and decides to raise it as a pet. She describes how they fed it and raised it. Surprisingly the anaconda proved to be a useful addition to Luisa's household as it would catch and kill wild game for the family. Luisa also describes with surprise how human the anaconda sometimes behaved. Visitors to Luisa's community marveled at the tame anaconda and frequently attempted to buy it from her. One fateful day she allows the children to take the anaconda with them to school to show the other children. One child stabs the anaconda with a sharpened stick, seriously wounding it. The children bring the wounded anaconda home and

Luisa does her best to dress the wound. The anaconda never fully recovers, refusing to eat or move. Finally Luisa decides that the best thing for the anaconda is to leave it on a rock in the river while it was low, and that when the river rose it would carry the anaconda back to its elders who could heal it. The river carries the anaconda away and months later Luisa encounters the anaconda again, caught by some malicious men who keep it in a cage and don't feed it properly. She angrily demands that they return it to her, but they refuse, and the anaconda eventually starves and dies.

5. How people grow old and die

This story does not come from Luisa's personal life but is a traditional narrative that tells the story of how it was that humans came to be mortal. Luisa tells that in the beginning times, when people aged and became old they could go to a certain pond and bathe themselves using the *wiwilan* root. Doing so would cause the old weathered skin to peel away revealing new young skin underneath. In this way humans lived as snakes and other animals who could shed their skin. This state of affairs was undone by the foolish actions of a young man, who mistook his recently rejuvenated mother for another woman despite her telling him that she was her mother. Despite her protests the young man rapes his mother and this act of incest undoes the immortality of humans. The mother returns to her old age overnight and scolds her son and informs her children that he has ruined everything and now humans are doomed to age and die.

Chapter 4: Results

This chapter presents the results of the quantitative analyses. Section 4.1 describes the

chi-square test that evaluates the distribution of the SR morphemes to address research question

3. Section 4.2 contains a series of tables showing the counts for the feature parameters of the SR

morphemes of the sample texts.

4.1 Distribution of SR morphemes

The chi-square test showed a significant difference between the distribution of the SS and

DS morphemes. COPK is small by corpus standards, but large enough to provide a sufficient

number of SR morphemes to perform the chi-square analysis.

Table 3 Chi-square results

Category	Observed	Expected	Result	P-value (2 tailed)
SS	1868	1144.5	χ^2=914.727 (1 degree of freedom)	0.0001
DS	421	1144.5		

4.2 Sample texts results

The following tables consist of counts of the features for each SR morpheme in the

sample text as described in chapter 3. As the counts are generally very low no statistical analysis

of significance was pursued but the counts are relevant to the discussion of results in the next

chapter. These are the results after assigning the parameter values mentioned in 3.2. The list of

subjects for the Subject parameter is not given due to the great number of different subjects and

such a list would be unwieldly. Relevant examples of the subject lists are given in 5.2.

Table 4 SS Aspect and Dependency parameters

Text	Aspect		Dependency	
	simultaneous	sequential	independent	dependent
The chikwan speaks	43	15	6	59
Canoe of death	18	3	2	21
My first pregnancy	27	8	4	36
Adopting an anaconda	63	43	13	106
How people grow old and die	22	12	6	34
Total for all texts	174	80	32	287

Table 5 SS Aspect and Dependency parameters

Text	Aspect		Dependency	
	simultaneous	sequential	Independent	Dependent
The chikwan speaks	6	4	2	10
Canoe of death	1	7	0	8
My first pregnancy	1	1	1	2
Adopting an anaconda	22	10	2	32
How people grow old and die	1	7	0	8
Total for all texts	30	29	5	60

Table 6 SS+TOP

Text	conditional SS+TOP	reiterative SS+TOP	unsorted SS+TOP	total SS+TOP
The chikwan speaks	0	0	2	2
Canoe of death	0	0	0	0
My first pregnancy	0	0	2	2
Adopting an anaconda	2	5	0	7
How people grow old and die	0	0	0	0

Table 7 DS+TOP

Text	conditional DS+TOP	temporal DS+TOP	unsorted DS+TOP	total DS+TOP
The chikwan speaks	0	1	1	2
Canoe of death	0	0	0	0
My first pregnancy	0	0	0	0
Adopting an anaconda	1	6	0	7
How people grow old and die	0	0	1	1

Table 8 SS+EV

Text	time SS+EV	non-time SS+EV	total SS+EV
The chikwan speaks	0	1	1
Canoe of death	0	0	0
My first pregnancy	1	1	2
Adopting an anaconda	1	0	1
How people grow old and die	0	0	0

Table 9 DS+EV

Text	temporal DS+EV	non-temporal DS+EV	total DS+EV
The chikwan speaks	0	0	0
Canoe of death	0	0	0
My first pregnancy	0	0	0
Adopting an anaconda	0	0	0
How people grow old and die	0	0	0

Chapter 5: Same-subject marker *-sha*

This chapter discusses the findings on *-sha* the same-subject manifestation of switch-reference in Pastaza Kichwa. This chapter uses the data from the analysis mentioned in Chapter 4 and uses in-context examples to discuss the various findings. 5.1 evaluates the SS marker in terms of research questions 1 and 2, which concerns SS clauses in terms of the Dependency Condition and Realization Condition. 5.2 discusses the results of research questions 3 and 4 on Stewart's (1988) Discourse Representation theory. 5.3, 5.4, and 5.5 address research questions 6, 7, and 8 which concern Cole's (1982) SR constructions for PK. 6.6 discusses the use of ideophones in conjunction with SS RC's to indicate aspectual relations.

5.1 Structural relations

This section examines the clause structure relations of SS marked clauses. Before diving into the examples I restate the functional conditions of SR (Stirling 1993) relevant to this section.

2. The Dependency Condition – The marked clause is syntactically and semantically dependent on the controlling clause. Either the marked clause is subordinate to the controlling clause or marked and controlling clauses are in a clause-chaining construction. In a clause chaining construction a string of 'dependent' medial clauses is followed by a final 'independent' clause. The medial clauses are typically marked for switch-reference but lack some or all of the verbal inflection characteristic of independent clauses, such as tense, mood, agreement etc. The final clause is not marked for switch-reference but does have finite verb inflection, and this is assumed to apply to the entire clause chain.

3. The Realization Condition – Switch reference is marked by contrastive suffixation on the verb of the dependent clause. The order of the two clauses is [the reference clause followed by the controlling clause].

The first example shows a simple SS construction that obeys both conditions. The RC is dependent on the controlling clause as well as proceeding the controlling clause. The subject is the old woman from the How People Grow Old and Die text. This was after she had been rejuvenated by the huihuilan and raped by her son.

1. How People Grow Old and Die, Line 33

waka-**sha** wasi-i   pakta-gri-shka
cry-**SS**   house-LOC arrive-TRLC-PERF
She was crying when she arrived at the house

The next example comes from the same story. Now that the ability to rejuvante one's body was no longer available for mankind, the now old-again woman describes the new state of affairs to her children.

2. How people grow old and die, line 45

bara-ta   hapi-ri-**sha**   isma-ri-**sha**   ishpa-ri-**sha**-s   chi aicha-lla-n-mi
stick-ACC grab-RLFX-**SS** defecate-RFLX-**SS** urinate-RFLX-**SS**-INCL that flesh-LIM-INST-EV

wañu-ngichi
die-2PL
"Clutching a stick, defecating, urinating, with that very flesh you'll all die."

This straightforward example represents one of the chains described by the Dependency Condition. A RC is controlled by another RC which is controlled by another RC which is controlled by a CC. A RC can control another RC but only if there is a CC to "cap" the chain. The RC's are syntactically and syntactically dependent on the clauses that follow them. TAM content is pulled from the final CC.

As mentioned in chapters 1 and 2, some authors refer to these SR marked RC's as 'adverbial' clauses, which are said to describe the way in which the action in the CC occurred. In this example it seems unlikely each RC describes the way in which the following clause was done. It's difficult to imagine how defecating might describe the way in which one urinates.

Easier to imagine however, is that all three of the RC simply describe the way in which the action in the CC is done.

The implication then, is that the structure of the semantic dependency may not mirror that of the syntactic dependency. I illustrate this with the following figure.

Figure 4 Syntactic versus semantic dependency
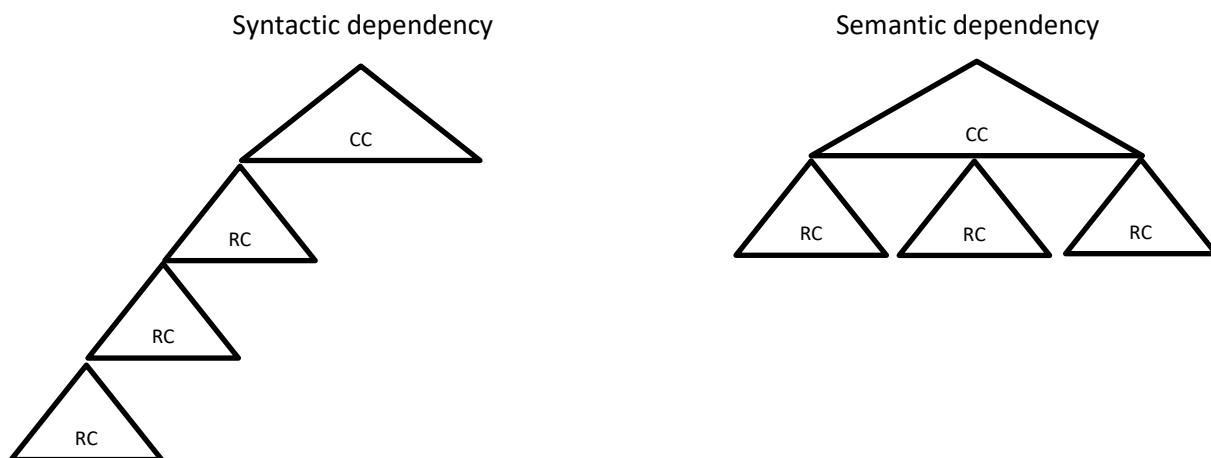
Additionally we could posit that the syntactic structure looks like the semantic structure as illustrated in Fig. 5.1. Whether we assume a non-subordinating syntactic structure or else dissociate syntactic and semantic structure, both have large implications for the formal and functional conditions of SR. That is part of a much larger discussion that is beyond the scope of this work as I attempt to keep this discussion couched in the canonical SR conditions outlined by Stirling (1993).

The majority of the SS markers in the sample (89%) follow the Dependency Condition. There are however examples (11%) that do not. In these examples, the SS marked RC's are left "hanging" in that they do not have a controlling clause. The most common instance of this comes from the use of *nina* (to say, speak) and usually follows when the speaker quotes someone else.

3. My first pregnancy VIII. Lines 6-8
6
Ña   urma-i   pasa-wa-ra.
Now fall-NOM pass-me-3SG.PST
Now the falling had passed for me.
7
Chiga, "Ima wawa-ta-ta   wacha-n?"   ni-**sha**, "Vela-ta   apamu-y"
Then   what child-ACC-INT birth-3SG.PRS say-**SS** candle-ACC bring-IMP
Then, "What kind of baby did she give birth to?" they said, "Bring a candle!"
8
Amasa-i,   mana punzha-lya-y-chu   wacha-n;
Dusk-LOC NEG day-LIM-LOC-NEG birth-3SG.PRES
It was dark, one doesn't usually give birth in the daytime.

In this example, there is no clear connection between *nisha* in line 7 and any of the

adjacent clauses. Linking *nisha* to the clause within the quotations doesn't make any sense,

neither would linking it to line 6. Line 8 would also be unacceptable since the subject of the

clause in line 8 is not the same as the "they" of line 7, if they were linked we would expect *nisha*

to be *nikpi*, the DS counterpart of SS *-sha*.

There are two possible conclusions. First we can posit the existence of an underlying CC

that controls the *nisha* RC clause. This is plausible, given examples like the following in line 8:

4. The Chikwan Speaks XI. Lines 6-8
6
"kallpa-y! ri!   ri!"
  Run-IMP go-IMP go-IMP
"Run! Go! Go!"
7
"kanda   wañu-chi-nga   shamu-kpi,
  You-ACC die-CAUS-FUT come-DS
"As they've come to kill you"
8
kan brujo   sa-mi, manzha-w-ngi!"   **ni-sha**-shi **ni-ra**.
you shaman ??-EV, fear-DUR-2SG.PRS **say**-**SS**-EV **say**-**3SG.PST**
"You should be afraid, being a shaman!" Saying this, she told him.

Line 8 shows an example of an SS marked 'to say' followed by a finite CC 'to say' this

might be translated as 'saying this, she said' or 'saying this, she told him'. While sounding

redundant in English, this construction is typical in PK. Thus, it's entirely possible that there is an unsaid finite *nina* following the *nisha* in 7 of the previous example. We can posit the existence of the underlying finite *nina* in order to have this example conform to the Dependency Conditon. However, it is also possible that this SS RC is independent in that it does not require a CC thus violating the Dependency Condition.

Example 5 also appears to violate the Dependency Condition and there does not appear to be room for an unsaid CC. This example was shown previously in 1.2.

5. Adopting an Anaconda I. Lines 9-11
9
Chi-ta ishku-sha Luzaura-ta   ku-ni   chi uras Luzaura ichilya ma-ra
It-ACC pluck-SS Luzaura-ACC give-1SG.PRS that time Luzaura small   be-3SG.PST
And so plucking it, I gave it to Luzaura, who was little at the time.
10
Chi-ta ishku-**sha** ku-**sha** kuti chi chiwilya
It-ACC pluck-SS   give-**SS** again that pineapple
And so plucking it and again giving her that pineapple
11
Pay-ba   panga a-ra
3.SG-POSS leaf   be-3.SG.PST
Well, there were its leaves.

The second SS RC in line 10 cannot reasonably be linked to any of the nearby clauses. The subject of the the clause in line 11 are the leaves of the pineapple. If line 11 was the CC the final RC clause in line 10 would be marked with DS rather than SS.

Postulating an underlying CC is difficult as it is hard to imagine what that clause would say. The doubling seen in example 4 can only be substantiated for *nina* but is not yet attested for any other verb. Flipping the chain back the other way and having the RC 'look back' and violating the Realizaiton Condition is also problematic for the same reason. This cannot work, because the subject of the 'to be' verb in line 9 is Luzaura, and the subject of two SS clauses in line 10 is the narrator Luisa. They are not the same subjects.

Since there is no feasible connection between these RC's to adjacent CC's there are a couple possible conclusions. First that the Dependency Condition is invalid and SS marked clauses and need not be controlled by a finite CC. It is also possible that the narrator decided to jump to a new topic mid-sentence without finishing her thought with a finite clause. This might explain the discontinuity between lines 10 and 11 in which she beings talking about the leaves of the pineapple.

The next example shows a violation of the Realization Condition, which states that SR marked clauses must anticipate their CC.

6. Canoe of Death Lines 69-72
69
pukuna-wan   shita-**sha** wañuchi-n
blow.gun-INST shoot-**SS** kill-3
"With a blowgun, shooting, he killed them
70
Chi-ga   ima tuish-ga   puk   wira chari   a-shka-ra,   riku-ngi-ma
that-TOP what tuish-TOP IDEO fat   perhaps be-PERF-PAST look-2-CON
And those tuwish birds, how puk with fat they were, you would have seen
71
Chunda-ta   miku-**sha**
peach palm-ACC eat-**SS**
From eating that peach palm fruit
72
Chi-ta-ga   wangu-ta   wañuchi-**sha** shamu-shka
that-ACC-TOP bunch-ACC kill-**SS**   come-PERF
Killing a bunch of them, he returned."

In this example, the SS RC in line 71 actually looks back to its CC. If we say that it looks forward it would incorrectly indicate the subjects of lines 71 and 72 as being the same which they are clearly not. The subject of line 71 are the tuwish birds, and Luisa's uncle is the subject of line 72. Thus the Realization Condition is clearly violated because the SS marked RC looks backward.

5.2 Discourse Representation theory -SS

This section discusses Stewart's (1988) Discourse Representation theory and its applicability to PK. The first observation made by Stewart in regards to the theory is that the SS marker occurs much more frequently than the DS marker. Chapter 5 showed the results for this test for PK. The test confirmed that the SS marker in PK is used much more frequently than the DS marker by a significant degree. However that factoid alone is of little use. The reason behind this distribution was that SS markers are reserved for the central participants of each narrative. Thus the actions of the central participants are more frequently represented in the discourse.

Stewart posits that the SS marker is used to encode action of the central participant and is therefore the 'default' SR marker. Whereas the DS marker encodes action of non-focal participants and is used as an attention drawing device to actions or states of affairs which are peripheral to the main event line or topic strand of the discourse. As described in Chapter 4, I examined every instance of SS RC's in the sample and identified the subjects. If Stewart's theory can be successfully applied to PK, SS markers should primarily be used for the most present subjects in the texts.

This analysis could not be substantiated for PK. I will illustrate this with examples from the sample. In the Canoe of Death text if any of the participants in this story are to be taken as the central participant under Stewart's analysis, we see that neither the SS nor DS markers are used exclusively for any of the participants. In example 7 we may assume that Luisa's uncle is the central participant, then the following example would be incorrect under this analysis.

7. Canoe of Death Line 31

Ah ow, tapya-**sha**-shi   chasnara tuku   a-g   a-shka   ñuka hachi wañu-na a-**kpi**
Yes   portend-**SS**-EV like.that become be-AG be-PERF my   uncle die-INF be-**DS**
"Um hm, portending it had become like that, as my uncle was to die."

       The first SS RC is used to encode the action of the canoe portending the death of Luisa's

uncle. This example is completely opposite of what we expect to find under Stewart's

assumptions. In that paradigm, the DS marker would be used for the peripheral subject, the

canoe, and the SS would be reserved for the central participant or main character of the narrative,

the Uncle. Instead the Uncle is marked with a DS RC.

       If we take the narrator, Luisa, to be the central participant we run into the same problem.

Both markers are used with her. In example 8 line 5, Luisa encodes the action of her saying

"come and drink aswa" with DS -*kpi*.

8. Canoe of Death Lines 4-12
4
Pay taw taw taw taw taw taw taw taw asiolya-ng   alya-w-**kpi**
3SG IDEO(x8)   planer-INST dig-DUR-**DS**
He was digging with the planer taw taw taw taw taw taw taw taw
5
Ah ow "aswa-ta   upi-k   sham-i"   ni-**kpi**
Ah ha   aswa-ACC drink-AG come-IMP say-**DS**
Ah hah, and when I said "Come and drink aswa"
6
"Kai-lya-ta   tuku-chi-u-ni   ushushi" ni-wa-n
this-LIM-ACC finish-CAUS-1 daughter say-me-3
He said to me "I'm just finishing up this little bit, daughter"
7
Kai-lya-ta-n   tuku-chi-u-ni   kai tupu-lya ma-shka-ra
this-LIM-ACC-INST finish-CAUS-DUR-1 this size-LIM be-PERF-PAST

uku-manda ña   lyaglya-sha tuku-chi-na
inside-from now smoothe-SS finish-CAUS
"With just this I'm finishing" in other words, there was just this much to finish
from the inside, making it smooth

8
Chi-ga,   upi-chi-gri-sha-lya   ni-**sha** shungu yuyari-**sha**, ñuka
that-TOP drink-CAUS-TRLOC-LIM say-**SS** heart   think-**SS**   I
And so thinking in my heart "I'll just go and give him something to drink"
9
Aswa-ta   alyi alyi ra-**sha**
aswa-ACC well well do-**SS**
Preparing preparing the aswa well
10
Yaku-ta   apa-**sha** yaku chi-ta   apa-**sha**
water-ACC take-**SS** water that-ACC take-**SS**
Bringing water, bringing that water
11
Manga-i lyapi   lyapi   ra-**sha**
pot-LOC squeeze squeeze do-**SS**
Squeezing squeezing the aswa in the pot
12
Hachi-ta upi-chi-gri-ni   yaku pirtu-i   ri-**sha**
uncle-ACC drink-CAUS-TRLOC-1 water shore-LOC go-**SS**
Heading for the water's shore I go and give my uncle something to drink

In lines 9-12, we have a lengthy chain of SS RC's all of which encode the actions of

Luisa while she prepares a fermented manioc drink (aswa) for her uncle. Therefore, we see the

same participant, whether central or non-focal, marked with both the SS and DS markers.

However, line 4 is the only line in this narrative in which Luisa's action is encoded with a

DS -*kpi*. In one of Stewart's examples, a central participant was likewise marked as DS early in

the narrative and from then on marked with only SS. Stewart explains that this is because the

focal participant has not yet been established so early in the narrative. In this early phase of the

narrative the actions of all of the characters can be encoded by either SS or DS and only later

when narrative is "settled" does the focal participant get consistently marked with SS and

peripheral elements with DS (780-781). Therefore, this example may conform to Setwart's

paradigm but given other considerations I still find this to be unlikely as will be demonstrated by

further examples.

In Stewart's paradigm, peripheral elements such as side characters and less animate objects are marked as DS but as previously shown in example 6, the canoe was marked as SS. And in this next example another peripheral element is marked with SS. Luisa's uncle leaves to kill some tuwish birds. In describing how fat the birds were from eating some fruit, Luisa uses SS -*sha* to encode that action as well.

9. Canoe of Death Lines 69-72
69
pukuna-wan   shita-**sha** wañuchi-n
blow.gun-INST shoot-**SS** kill-3
With a blowgun, shooting, he killed them
70
chi-ga   ima tuish-ga   puk   wira chari   a-shka-ra,   riku-ngi-ma
that-TOP what tuish-TOP IDEO fat   perhaps be-PERF-PAST look-2-CON
And those tuwish birds, how puk with fat they were, you would have seen
71
chunda-ta miku-**sha**
peach.palm-ACC eat-**SS**
From eating that peach palm fruit
72
chi-ta-ga   wangu-ta   wañuchi-**sha** shamu-shka
that-ACC-TOP bunch-ACC kill-**SS**   come-PERF
Killing a bunch of them, he returned

These birds, that show up only once in this story are marked with SS, which under Stewart's Discourse Representation theory, should only receive DS marking if they are marked at all in a SR clause as they are peripheral to the main topic. To conclude this sub-section, I will reiterate that while the overall frequency of SS markers matches what Stewart found, the reason for why that is, (SS being used primarily for central participants) cannot be substantiated for PK.

5.3 SS Conditional constructions

As described in chapter 2 Cole (1982, 1983), and Haboud (2003) touch on possible aspectual relations of -*sha*. Cole in particular expresses that both of the SR markers can be used

to express time, manner, and condition. This section will examine the use of the SS as condition as outlined in Cole 1982. The following sections will describe time, manner, and aspect.

According to Cole, the conditional in IK can be expressed with a combination of the SS marker plus the topicalizer. Examples from Cole were shown in 2.2 but I reiterate one here as a refresher.

10. Conditional use of SS (Cole 1982: 65).

Utavalu-ma ri-**shpa-ka**   ruwana-ta   randi-sha
Otavalo-to   go-**SS-TOP** poncho-ACC buy-1SG.FUT
If I go to Otavalo, I will buy a poncho.

Thus the combination of -SS+TOP is equivalent to the 'if' in the translation. In PK, the topicalizer is realized as -*ga*, therefore the SS marker plus the topicalizer is realized as -*sha-ga*. In the analysis, the sample instances of -*sha-ga* were examined and while some did appear to carry a conditional sense, others did not. Examples were found in which occurrences of -*sha-ga* were clearly not conditional and examples that clearly were conditional using -*sha* were not suffixed by -*ga*.

I will begin with examples that do appear to be conditional. The following example comes from the aforementioned Anaconda story. Luisa describes the Anaconda's uncanny ability to draw rats to itself in order to strangle them.

11. Adopting an Anaconda VII. Lines 6-8
6
Chi raygu-shi pay-lya-shi   animal-guna pay rayka-**sha-ga**   aisa-n
That reason-EV 3SG-LIM-EV animal-PL   3SG be.hungry-**SS-TOP** draw-3SG.PRS

mai-manda-s
where-from-INCL
That's why he, he especially, is able to draw animals toward himself, when he's hungry, from anywhere.

7
Pay-lya   siri-u-shka-i-shi   mansu sh-a-n.
3SG-LIM lay-DUR-PERF-LOC-EV tame   EV-be-3SG.PRES
He'll just be lying by himself, and they think he's tame.
8
Chita pak   hapi-sha pay ling   miku-g   a-n.
Then IDEO grab-SS   3SG IDEO eat-AGT be-3SG.PRES
Then he'll grab hold pak and ling swallow it whole.

The use of SS+TOP in line 6 can definitely be considered to be conditional, a more simplified translation of the final clauses in line 6 might be represented as "if he is hungry, he can draw them in from anywhere" or "being hungry, he can draw them in from anywhere." The state of Anaconda being hungry is irrealis, if X condition is met he can do Y. This is similar to Cole's example from IK, 'if X condition met, I will buy Y'. Note also that the ideophones in line 8 encode the completed nature of actions.

The next example comes from the same story at a later point. The Anaconda was wounded and sick, and they released it into the river hoping it would find its elders and be healed. Some time had passed, and they wondered about its status.

12. Adopting an Anaconda XIV. Lines 22-23
22
Kunga-ri-ra-nchi!
Forget-RFLX-PST-1PL
Then we forgot about him!
23
Wañu-**sha-ga** may-shi   ismu-n-ga?
Die-SS-TOP where-EV rot-3SG-TOP
When we remembered again, we wondered, ''Where, having died, might he lie, rotting away?''

This instance of SS+TOP in line 23 also appears to carry a conditional sense and best correlates to the use of 'if'. "**If** he is dead, where might he be rotting away?". Both examples 11 and 12 match what Cole outlined as the conditional usage of SS+TOP. However, In the sample used for the analysis, a total of 11 instances of SS+TOP were found, and only these two

instances could be considered as conditional. I will now show some of the instances of SS+TOP that were clearly not conditional. But instead appear to have other possible meanings.

Also, from the Anaconda story, this example describes the beginning of the narrative in which Luisa and her children find and capture the anaconda as a baby. They take it home and place it in a tin can and attempt to feed it dead rats.

13. Adopting an anaconda III. Lines 4-6
4
Chura-sha apamu-sha lata-i   chura-ra-nchi.
Put-SS   bring-SS   tin-LOC put-PST-1PL
So bringing him with us, we put him in the tin.
5
Lata-i   chura-**sha-ga** ukucha-ta api-sha   intiru-ta   api-sha
Tin-LO put-**SS-TOP** rat-ACC   catch-SS whole-ACC catch-SS
Having put him in the tin, and catching a rat, a whole rat,
6
Chai-i   chura-ra-nchi
There-LOC put-PST-1PL
We would put it inside there.

It's hard to interpret this example of SS+TOP as being conditional. Attempting to translate this mean something like "If we put him in the tin, we would catch a whole rat and put in inside there" does not work because of the context. These lines are also given in a specific point in the narrative after the anaconda was found in the pineapple garden and brought home. This makes the action of putting the anaconda in the tin an event that happened, the putting of the rats was habitual It was a recurring event that is known by the speaker to have happened, and therefore not irrealis. Furthermore Cole states that "no distinctions are made in condition clauses regarding such parameters as real versus unreal conditions" (65). This event is then reiterated in line 5. In fact the use of the topicalizer with SS may have more to do with this reiteration rather than conditional.

The following example comes from the same story, years later when the anaconda was larger, some local children stabbed it with a spear, wounding it to the extent that its intestines were poking through its skin. This example describes how Luisa attempted to push the anaconda's intestines back into its body before dressing the wound.

14. Adopting an anaconda XIV. Lines 6-8
6
Pobre charak taka-kpi kawsa-n ni-shka-ra   chi-ta   chundzhuli-ta
Poor thing touch-DS live-3SG say-PERF-PST this-ACC intestines-ACC
I could tell by touching him that this poor thing was still alive, and so his intestines,
7
Ukuuuuma-mi niti-ra-ni.
Inside-EV   press-PST-1SG
I pressed them, ever so gently, back inside.
8
Uku-ma niti-**sha-ga**,   mashti tispaga-[unintelliable] pak
Inside-to press-**SS-TOP** then   wrap-[uknown]   IDEO
Pressing them back inside of him, and wrapping a cloth bandage all around him pak.

The use SS+TOP in line 8 reiterates the action of pressing the intestines back inside and described in the finite clause of line 7. The ideophone *pak* which communicates the image of lightly pressing also describes the pressing of the intestines back into the wounded anaconda. The even of the CC in line 8 is the dressing of the wound. Once again, it's difficult to interpret this example as being conditional. Like the previous example the function of the combination of the suffixes appears to reiterate or emphasize a previous action. Of the 11 instances of SS+TOP in the five text samples, 5 show this reiteration. Other instances of SS+TOP have no immediately apparent function. One of these examples is provided below.

15. My first pregnancy II. Lines 7-12
7
''Wiksay-aw-ngi-mi,''   ni-wa-ra.
Pregnant-DUR-2SG-EV say-me-3SG.PST
''You are going to have a baby,'' she told me.

8
''Atsatsai! Yanga-mi, ni-wa-ngi''   ni-ra-ni.
INTRJ   wrong-EV say-me-2SG say-PST-1SG
''Atsatsai! You're wrong to tell me that,'' I said.
9
''Cierto-ta   ni-ni;   chuchu-ta   riku-ri-n,''   ni-wa-ra.
  certain-ACC say-1SG.PRS breasts-ACC look-RFLX-3SG.PRS say-me-PST.3SG
''I'm telling you for sure; your breasts look like it,'' she told me.
10
Chiga, chuchu-i-**ga**,   kai-ta   shinki ña   tuku-wa-shka-ra;
Well   breasts-LOC-**TOP** here-ACC dark   already become-me-PERF-PST.3SG
Well, my breasts, right here, had become darkened.
11
Chiga alyi   riku-**sha-ga**   manzha-ri-ra-ni.
So   good look-**SS-TOP** surprise-RFLX-PST-1SG
So when I looked carefully at that I was surprised.

In this example, the SS+TOP in line 11 encodes the action of Luisa examining herself for physical signs of pregnancy. The combination of SS+TOP in line 11 clearly isn't conditional, nor is it reiterative like the previous examples. It is possible that it links to the topicalizer in line 10 above. More plausible though, is that these suffixes together are equivalent to the usage of "when" in the translation. It acts as a time stamp in the clause "**when** X action, then Y action". The notion of "when" and the SS marker will be discussed in the next section. In addition it is possible that the topicalizer in this example establishes a separateness of the the RC to its CC, indicating that the RC does not simply modify the action of the CC, but is its own action.

Now I will turn an example in which there is a conditional relation between two clauses but -*sha* is used without -*ga*. The following example comes from the apocryphal story 'Why people grow old and die'. This line comes from the end of the narrative in which Luisa describes the new state of affairs in which humans could no longer shed their skin and regenerate.

16. Why people grow old and die. Line 63.

Nukanchi kallari tiempo shina a-**sha**, wañu-**sha**-s   kausa-ri-na   ruku-ya-**sha**-s
we   early time   like   be-**SS** die-**SS**-INCL live-RFLX-INF old-become-**SS**-INCL

lluchuri-na
peel-INF
If we still lived like we did in the beginning, we would revive if we began to die, and we would shed ourselves if we started to age.

Notice that the if's in the translation correspond to the -sha's. 'if things were the way they used to be' *asha*, 'if we began to die' *wañusha*, 'if we started to age' *rukuyashas*. This is clearly a set of conditional constructions but the topicalizer is nowhere to be found.

To conclude this section, Cole's notion that SS+TOP can be used in a conditional construction is applicable to PK. Some examples of SS+TOP are conditional but others appear t have different functions altogether.

5.4 SS time clauses

Cole (1982) describes a number of ways in which time relation can be indicated in clauses besides the use of tense on finite verbs. Of interest to this discussion is the way in which a time clause can be created on a SR marked clause. The SR markered RC's are understood to be inherently tenseless by all the authors listed in Chapter 2. Tense is understood to be "drawn" from the CC's along with other semantic information.

In 2.2 I reviewed Cole's construction of suffixing the evidential clitic -mi to the SR marker to indicate time in the RC relative to the CC. I will reiterate Cole's words and one of his examples: "-*mi* marks the focus of the sentence. This is appropriate for the expression of time clauses (roughly translatable as 'it was when…') and manner adverbials, both of which often constitute the focal element of the sentence." (65).

17. IK SS time clause (Cole 1982: 61)

Kitu-man chaya-**shpa-mi** rijsi-ta   riku-rka-ni
Quito-to arrive-**SS-EV**   acquaintance-ACC see-PST-1SG
"When I arrived in Quito, I saw a friend"

I searched for the equivalent construction *sha-mi* (SS+EV) in the sample. Only four total

instances were found. Two of which do appear to constitute time clauses and two that could not.

I will start with the examples that appear to be time clauses.

18. Adopting an Anaconda VII. Lines 15-16
15
Tuta-manda riku-gri-kpi-ga   chuthaak-lya wañu-chi-k!
Night-from see-TRSLC-DS-TOP stretched-LIM die-CAUS-AGT
In the morning we went to look, and he's just killed more of them, leaving them stretched out.
16
Ukucha-ta ña   win wañu-chi-**sha-mi** raiku-ra   ri-ki!
Rat-ACC then IDEO die-CAUS-**SS-EV** come.down-PST.3SG look-IMP
So then, look! Killing all of the rats, he would then come down.

This example comes from the anaconda story, the anaconda killed rats in Luisa's home

and afterwards tried to snuggle with the sleeping children. Line 16 could be translated as "when

he killed the rats, he came down." and thus be valid time clause.

The following example comes from the first pregnancy story. At this point, Luisa has

already given birth and her aunt and husband help pass the afterbirth by warming her up.

19. My first pregnancy XI. Lines 14-16
14
Kimsa kutin pai kaku-shka-wna ña   kari-wa-s.
Five   again 3SG rub-PERF-3PL then husband-me-INCL
They rubbed me three times, then my husband too.
15
Kai-ta   rupak-ta   ra-**sha-mi** kari-wa-s   chaki-wan aytan-aw-n,
This-ACC warm-ACC be-**SS-EV** husband-me-INCL foot-INST step-DUR-3SG
Warming up his foot he also stepped on me gently,

Line 15 could be translated as "when/upon he warmed up his foot, he stepped on me

gently". These two examples can be interpreted as being time clauses. However, the next two

examples, despite having SS+EV cannot. Example 19 also comes from the pregnancy story. At

this moment Luisa is experiencing painful contractions and preparing for the delivery. Luisa's

aunt encourages her to be strong like the Runa woman she is.

20. My frist pregnancy VII. Lines 4-6
4
Chi-ga   "kai ango-i   hapi-ri-sha,   siiinzhi-ta   hurza-ri-ngui!"
Then-TOP this vine-LOC grab-RFLX-SS strong-ACC fortify-RFLX-2SG
Then she said ''Holding on to these vines fortify yourself strongly''
5
''Kan-manda-was yalyi, ichilya ukucha-mi wawa-ya-**sha-mi**   tiya-n!" ni-wa-ra.
You-from-?   more small   rat-EV   child-become-SS-EV be-3SG say-me-PST.3SG
''Compared to you, there are much littler mice giving birth all the time!'' she told me.
6
''Kan-ga   runa   m-a-ngi.''
 You-TOP person EV-be-2SG
''You are a Runa.''

The quotation in line 5 is in the same vein of high school coaches shouting at their

athletes during training. The aunt tells Luisa that small mice give birth easily all the time, so she

as a Runa woman should have no problem. If a mouse can do it, she can do better. There's no

reasonable way to interpret this instance of sha+mi as meaning "when". The clause with the verb

wawayana 'to give birth' cooccurs with the verb *tiyana* (to be) in the finite clause. If we tried to

force a "when" interpretation on this, it would mean something like: "Compared to you, when

the much littler mice give birth, they are there" which does not make sense. These correlative

verb constructions of verb-SS + *tiyana* are quite common in PK. For example something like

chapasha tiyani means something akin to "hanging around and waiting". There's no separation

of the actions and you can't timestamp one with a "when" relative to the other.

The next example can be confusing. It comes from the Chikwan story, the part where the

Auka are killing Luisa's uncle. The Auka are jeering and yelling while repeatedly shooting him

with their firearms. Luisa reports some of the things they were saying.

21. The chikwan speaks XIII. Lines 3-6
3
"kama-y kama-y kama-y kama-y kama-y kama-y"
Try-IMP try-IMP try-IMP try-IMP try-IMP try-IMP
(They were saying,) "Try try try, (just try to get away!)
4
"kasna-ta-mi   runa-ta   wañu-chi-sha tiya-ngi"
Like.this-ACC-EV people-ACC die-cause-SS stand-2SG
"You've been killing our people like this."
5
"kan-ga   kama-y, kama-y!"
You-TOP try-IMP try-IMP
"Now you can just feel what it's like."
6
"kay-man, rik-i   kay-ta   apa-ri-sha   ni-**sha-mi**"
Here-to   look-IMP this-ACC take-RFLX-SS say-SS-EV
"Look at what this is! Wanting to wear this."
7
"kan-ga runa-ta   shita-sha mana uya-"
You-TOP people-ACC shoot-SS NEG   listen
"You are here shooting people, and not listening."
8
"Mana uya-sha tiya-ngi!" ni-sha-shi   riman-guna ni-un-guna-mi   uya-k-guna-ga
NEG   listen-SS be-2SG   say-SS-EV speak-PLU say-DUR-PLU-EV hear-AGT-PLU-TOP
"You are not listening!" They say, said the ones were there and heard this.

In line 6, the referent of "this" is not mentioned, it is explained later that that it is one of the feathered headdresses worn by the Auka. They were taunting him by trying to get him to put it on. In any event this example also does not have any kind of "when" that can be attributed to it, "wanting to wear" cannot be separated in a temporal sense with a "when".

The total number of instances of *sha+mi* is low in this sample. More data is needed. However I will say that SS+mi can constitute a time clause but with some doubt because of the evidential suffix *-mi*. Nuckolls (2014) in classifying evidentiality in PK argues that modality and subjective perspective are the more salient elements used in defining the meaning of PK evidentials. Generally, use of *-mi* implies that the speaker has a personal knowledge of the event. Nuckolls proposes that *-mi* is used to focus and make assertions about that personal knowledge.
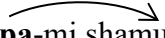
With this understanding, the use of *-mi* in these examples makes a lot more sense, especially given that these stories come from Luisa's personal experiences. Luisa is not necessarily combining *-mi* with *-sha* to create a time clause, but rather, Luisa is drawing attention to the action encoded in that non-finite clause and asserting her personal knowledge of that action. *-sha-mi* may have multiple functions but the evidential focusing function of *-mi* appears to be the most salient.

5.5 Aspect and manner of SS marked clauses

In Cole (1982) aspect and manner, in terms of the usage of the SS marker (*-shpa* in IK) are tied together. Essentially, if the actions of the clauses are 'related' (manner) then the sequence of events is understood to be simultaneous (aspect). If the actions of the clauses are 'unrelated' then the sequence of events is understood to be sequential. I will show examples from Cole to illustrate.

22. Related, simultaneous use of SS *-shpa* (Cole 1982: 62)

Kanda-**shpa**-mi shamu-rka-ni
Sing-**SS**-EV   come-PST-1SG
I came singing

This example is seen by Cole to have two related events, the non-finite clause *kandashpami* 'singing' describes the manner in which the following action 'I came' was. Thus they are related and the sequence of events is simultaneous. The following example shows the opposite.

23. Unrelated sequential use of SS *-shpa* (Cole 1982: 63)

Kwitsa-kuna-ta ali   riku-**shpa** trabaja-rka-ni
Girl-PLU-ACC well look-**SS**   work-PST-1SG
First I looked at the girls, then I worked

Since 'looking at the girls' does not describe the manner in which the work was done, these clauses are seen as 'unrelated' and therefore sequential. Cole states that translating this sentence to mean: "I watched the girls while I worked" is ill formed and incorrect (63).

There are a number of problems I have with this analysis. The first is the notion of manner. The distinction between related vs. unrelated is not explained. 'Looking at the girls' could easily be described as being 'related' to the action of working. The fact that correlative constructions (SR marked non-finite clause embedded in a finite clause) occur as they do indicates possible 'relatedness'. Second, having such an arbitrary distinction as a metric for aspect (determining whether clauses occur simultaneously or sequentially) is unsound. Second, this ignores various aspectual distinctions such as while, during, after, before, etc. All could be possible interpretations. In Cole's examples the context of the examples is never stated. Likely translations of 23 might include something like "getting a good look at the girls" or "ogling the girls". Such meanings would have different implications for viewing the clauses as related or not.

It is evident then that there is no one specific surface representation to mark aspect in a SR marked RC. Therefore, I propose that the best way of determining simultaneity or sequence is to consider the semantics of the verbs as well as discourse context. I illustrate with some examples of SS -*sha*.

24. Why people grow old and die line 15

Chasna-shi   achka-ta arma-**sha** wakta-ri-**sha**-shi shamu-shka-ra   shulla-ta
Like that-EV hair-ACC wash-**SS** hit-RFLX-**SS**-EV come-PERF-PAST drip-ACC

anchu-chi-gri-**sha**
remove-CAUS-TRLC-**SS**
"Having washed her hair, she was shaking water from it as she headed for home."

There are three sha's here. The first, in *armasha*, is in a sequential relation with the following SS marked clause *waktarishashi*. The others are simultaneous. The woman completes

61

the act of washing her hair. Then the shaking of the hair takes place simultaneously as the

coming home, and the coming home simultaneously with the drop removing. This is supported

by cultural knowledge, the scene of a woman shaking her hair in this manner is a stylized image

of female attractiveness. Many young Runa women wear their hair very long and put a great deal

of effort into maintaining and flaunting their hair. Furthermore, this description is expected given

the context of the story. The old woman's body is rejuvenated and this scene highlights the

contrast between the old body and the new body by underscoring the attractive hair. The next

example was shown previously in 5.2. However its aspectual relations were not discussed.

25. Canoe of Death: Lines 69-71
69
Pukuna-wan   shita-sha wañuchi-n
blow.gun-INST shoot-SS kill-3
With a blowgun, shooting, he killed them
70
Chi-ga   ima tuish-ga   puk   wira chari   a-shka-ra,   riku-ngi-ma
that-TOP what tuish-TOP IDEO fat   perhaps be-PERF-PAST look-2-CON
And those tuwish birds, how puk with fat they were, you would have seen
71
Chunda-ta   miku-sha
Peach.palm-ACC eat-SS
From eating that peach palm fruit
72
Chi-ta-ga   wangu-ta   wañuchi-**sha** shamu-shka
that-ACC-TOP bunch-ACC kill-**SS**   come-PERF
Killing a bunch of them, he returned

There are two events within their respective clauses. The killing of the birds and the

returning of Luisa's uncle. These events are sequential. The bird killing happened first, the

returning second. (Event X happened, then event Y happened). One could perhaps argue that the

events are simultaneous and this example could mean something like: "While on his way back

(returning) he killed a bunch of them (tuwish birds)." However I say this unlikely, given that the

narrative clearly established already that Luisa's uncle had gone out with the express purpose of
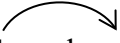
hunting these birds. The actual event of killing the birds was described prior to line 72. Luisa talks about how her uncle killed them with a blow gun and what nice fat birds they were. Given the discourse context the aspectual relation between these clauses is best understood as sequential.

5.5.1 Ideophones as aspect markers in SS clauses

Ideophones can also play an important role in determine aspectual relations between SS marked RC's and their CC's. Ideophones can be difficult to define but the simplest definition is that they are words that encode sound symbolism. Nuckolls (1996) describes ideophones as being analogous to onomatopoeia in English but in other languages such as PK ideophones constitute a rich system of communication. "Sounds, rhythms, visual patterns, and psychophysical sensations make up their repertoire of sound-symbolic forms… English speakers' sound-symbolic style is highly restricted in its function, indicating affective tones of whimsy or childishness. Quechua sound symbolism, by contrast, is central to peoples' discursive practice. It is distinctive formal properties and grammatical functions pervade the architecture of the language, providing speakers with a rich inventory of expressive possibilities." (4).

In the same work Nuckolls describes how the use of ideophones can modify SS RC's to give a completive aspect (sequential) to the RC. "a [SS] verb, when modified by an [ideophone], becomes clearly specified for aspectual perfectivity." (59). Additionally Nuckolls states that unmodified SS clauses imply a simultaneous aspectual relationship between the RC and CC. The use of ideophones overrides this default aspectual relationship. " When an [ideophones] modify a [SS] verb, they effectively establish that verb's temporal closure, despite the ongoingness that is implied by the coreference suffix. (59-60). Example 26 comes from Nuckolls (1996) and illustrates the sequential aspect the use of the ideophone implies.

26. SS RC modified by ideophone (Nuckolls 1996:59)

Tsuk   aysa-**sha** palya-nchi   lisan yuyu-ta
IDEO pull-**SS**   harvest-1PL lisan heart-ACC
Tsuk pulling it out, we harvest the heart of the lisan palm tree.

Nuckolls states the ideophone *tsuk* is sound symbolic of plucking a piece of something from its mass. In regards to the aspectual relations of this example Nuckolls sates: "In this sentence *tsuk* modifies the coreference verb *paskasha* "pulling," making it clear for a listener that the act of pulling out the heart of the palm tree was accomplished at a certain point, rather than ongoing, as an unmodified [SS] verb would have suggested." (59). Thus the event in the RC the plucking of the heart of palm, happens first. Then the harvesting of the palm tree occurs happens next.

The use of ideophones in SS RC's was shown in previous examples in this chapter. I show the relevant lines from those examples again in this sub-section. They are also contain sequential relations between the RC and the CC. Example 27 comes from the part of the anaconda story in which the speaker describes how it lured, captures, and consumed rats.

27. Adopting an Anaconda VII. Line 8
8
Chita **pak**   hapi-**sha** pay ling   miku-g a-n.
Then **IDEO** grab-**SS**   3SG IDEO eat-AGT be-3SG.PRES
Then he'll grab hold pak and ling swallow it whole.

In this example the ideophone *pak* modifies *hapisha*. *Pak* is defined by Nuckolls (2018) as a small, quick movement involving contact with a surface. In this example it captures the image of the anaconda striking the rat with its jaws. The ideophone in the CC *ling* is defined as insertion into a an enclosed space (Nuckolls 2018) which creates the image of the anaconda swallowing the captured rat. Thus the ideophones in this example highlight the aspectual

boundary between the two clauses. The grabbing of the rat was the first action followed by the

second action of swallowing it.

The next example comes from the same story, Luisa attempts to heal the wounded

anaconda by pressing its exposed intestines back into its body then bandaging it.

28. Adopting an anaconda XIV. Line 8
8
Uku-ma niti-**sha-ga**,   mashti tispaga-[unintelliable] **pak**
Inside-to press-**SS-TOP** then   wrap-[uknown]   **IDEO**
Pressing them back inside of him, and wrapping a cloth bandage all around him pak.

Curiously the pak in this example is not in the RC but in the CC. It's possible that pak is

modifying the action of wrapping the wound, but given the definition of pak as a quick

movement coming into contact with a surface it does seem to better fit the pressing action rather

than the wrapping action. It is difficult to decide, especially given that the audio was garbled and

the rest of the wrap verb could not be adequately described.

29. Adopting an Anaconda VII. Line 16
16
Ukucha-ta ña   **win**   wañu-chi-**sha-mi** raiku-ra   ri-ki!
Rat-ACC then **IDEO** die-CAUS-**SS-EV** come.down-PST.3SG look-IMP
So then, look! Killing all of the rats, he would then come down.

Example 29 is ambiguous in regards to the ideophone modifying the aspect of the RC.

The ideophone *win* refers to a collection, hence why it was translated as "all". In this case it

seems to modify *ukuchata* "rat" by specifying that there were multiple rats that were killed. It

could also be said to be modify *wañuchisha*, emphasizing the moment when he killed all of the

rats. However, we can still be reasonably confident that the events can be understood as

sequential based on the context.

To conclude this chapter I summarize the findings about the SS marker -sha in regards to

the research questions. First SS marked RC need not obey the Dependency Condition. They do

not always require a CC with a finite verb. They also do not always obey the Realization Condition. SS marked RC's can look backwards to CC's as well as forwards. Second, they do not follow Stewart's discourse representation theory. SS can be used to mark the actions of all participants in a narrative regardless of their status as being either central or peripheral to the narrative. Third SS marked RC's can be used with certain elements like topicalizers, evidentials, and ideophones to create conditional clauses, time clauses, and to emphasize aspect. However none of those things appear to be required to create those semantic meanings. Context above all else is the best determiner for conditional, time, and aspect. Uses of the topicalizers, evidentials, and ideophones can be used to give depth to those functions but they do appear to be required.

Chapter 6: Different-subject marker -kpi

This chapter discusses the findings on *-kpi* the different-subject manifestation of switch-reference in Pastaza Kichwa. This chapter uses the data from the analysis mentioned in Chapter 4 and uses in context examples to discuss the various findings. 5.1 evaluates the DS marker in terms of research questions 1 and 2, which concerns DS marked clauses in terms of the Dependency Condition and Realization Condition. 5.2 tests the results of research questions 3 and 4 on Stewart's (1988) Discourse Representation theory. 5.3, 5.4, and 5.5 address research questions 6, 7, and 8 which evaluate Cole's (1982) SR constructions for PK.

6.1 Structural relations

This chapter will examine *-sha*'s counterpart *-kpi*, in detail and in the same framework as the previous chapter. This section will discuss the clausal structural relations of *-kpi* in terms of the Dependency and Realization conditions. I restate them here for convenience.

2.   The Dependency Condition – The marked clause is syntactically and semantically dependent on the controlling clause. Either the marked clause is subordinate to the controlling clause or marked and controlling clauses are in a clause-chaining construction. In a clause chaining construction a string of 'dependent' medial clauses is followed by a final 'independent' clause. The medial clauses are typically marked for switch-reference but lack some or all of the verbal inflection characteristic of independent clauses, such as tense, mood, agreement etc. The final clause is not marked for switch-reference but does have finite verb inflection, and this is assumed to apply to the entire clause chain.

3.   The Realization Condition – Switch reference is marked by contrastive suffixation on the

verb of the dependent clause. The order of the two clauses is [the reference clause

followed by the controlling clause].

The different subject SR marker in PK is realized as *-kpi* and is suffixed onto non-finite

verbs in RC's. It indicates that the subject of the adverbial clause is different than that of the

following clause. Example 1 is rather straightforward.

1. Canoe of Death, Lines 16-18
16
"Uya-i!   uyari-kta-n   parti-ri-u-n!"   ni-wa-ra
listen-IMP sound-until-INST split-RFL-DUR-3 say-me-PAST
"Listen! it's splitting enough to be heard" he told me
17
"Mai?"
Where
18
Uya-**kpi** kasna   siki-ga,   kasna   shakaa wawa m-a-ra,   rik-i
listen-**DS** like.this rear-TOP   like.this IDEO baby   EV-be-PAST look-IMP
Upon listening, um, the rear was a little shakaa, you see.

This comes from the Canoe of Death narrative and encapsulates the fateful moment in

which the canoe splits and portends the death of Luisa's uncle. In line 18 the subject of *uyakpi* is

Luisa herself, who listens for the splitting sound her uncle indicated. The *-kpi* signals that the

subject of the next verb will not be Luisa. It does not specify who, only that it won't be Luisa.

Hence the glossing of *-kpi* as 'different subject' (DS). The subject of the next clause, is the rear

of the canoe and it is described by the sound and image of the canoe splitting, identified by the

ideophone *shakaa* and then *wawa* (baby/small). Chains of *-kpi* linked clauses are not common

but possible, as the following example will show. From the same story, Luisa's Uncle uses a

planer to hollow out the trunk of a tree that will become the canoe.

2. Canoe of Death Lines 4-6

4

Pay taw taw taw taw taw taw taw taw asiolya-ng   alya-w-**kpi**

3SG IDEO(x8)   planer-INST dig-DUR-**DS**

He was digging with the planer taw taw taw taw taw taw taw taw

5

Ah ow "Aswa-ta   upi-k   sham-i"   ni-**kpi**

Ah ha   aswa-ACC drink-AG come-IMP say-**DS**

Ah hah, and when I said "Come and drink aswa"

6

"Kai-lya-ta   tuku-chi-u-ni   ushushi" ni-wa-n

this-LIM-ACC finish-CAUS-1 daughter say-me-3

He said to me "I'm just finishing up this little bit, daughter"

Line 4 is the first clause, and the subject is Luisa's uncle, the -*kpi* at the end of the clause signals that the subject of the next clause will be different. In line 5, Luisa is the subject, and the act of her saying the quotation is again marked with a -*kpi*, that signals that the subject of the next clause will be different. In the final clause in line 6 Luisa's uncle is once again the subject and capped by a finite verb conjugated in the third person singular. The basic structure of these clauses might be represented as such:

[[[Uncle digging] Luisa saying] Uncle said]

Each set of brackets represents a clause and contains the subject and the verb. In addition, the final clause with finite verb is thought to subordinate the clause prior to it, and that clause, despite being non-finite and adverbial, subordinates the other adverbial clause before it. This example adheres to the Dependency Condition.

The next example appears to violate the Dependency Condition. It comes from the anaconda story, and in this part the anaconda is now large and Luisa's family becomes semi-famous for having a pet anaconda. Passing visitors from the highlands would even stop by to see the anaconda. The lines in this example emphasize how tame and well behaved the anaconda was with the visitors.
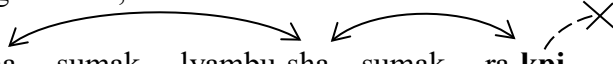
3. Adopting an anaconda XII. Lines 26-29
26
Señora-guna, kai oficial-ba   señora-guna shamu-na-ra!   Ima-lya   hawa-lyakta chari,
lady-PLU   this official-POS lady-PLU   come-3PL-PST what-LIM high-town   perhaps
Who was it, maybe some highlanders, some wives of officials came.
27
kay maki-pi   pilyu-chi-sha,   sumak   lyambu-sha,   sumak   ra-**kpi**.
here hand-LOC wrap-CAUS-SS beautiful stroke-SS   beautiful do-**DS**
Hugging him here and wrapping him around their hands, nicely stroking him, as they did like
that.
28
ura-y   uma wawa-ta   ña   sumak
down-LOC head child-ACC now beautiful
He would lower his little head nicely.
29
ima pishku-ta   shina-mi kuya-k   a-naw-ra,
how bird-ACC like-EV   love-AGT be-3PL-PST
How nicely, like a little bird, they would stroke him

In line 27 Luisa describes a number of actions performed by the visitors, hugging,

wrapping, and stroking. The -*kpi* in the final clause indicates that the subject of the next clause

will be different. In Line 28, the subject is different, it's the anaconda, but there is no verb in this

clause. The translation communicates the idea that there is an unspoken verb here, 'to lower'.

This violates the Dependency Condition as there is no verb for the DS marked RC to pull subject

and tense information from. Thus this DS marked RC appears to be independent from any CC. It

cannot be linked to line 29, because the subject of that line are the visitors, the same subject of

the clauses in line 27. This example would obey the Dependency Condition if line 27 was capped

by a SS RC rather than DS.

[[[[hugging him]wrapping him]stroking him] they were doing]

Alternatively, we can also posit that the line 28 is its own finite clause that subordinates

the clauses in line 27 despite not having a verb.

[[[[[hugging him]wrapping him]stroking him] they were doing] he would lower his head]

If we assume the latter analysis, that there is an underlying finite verb in the clause in line 28, it would still in a sense conform to the Dependency Condition despite not having a verb. This is plausible as line 28 seems to have verbal semantics despite not having a verb. In either case, it certainly warrants discussion and further research.

The next example appears to violate the Realization Condition. It comes from the pregnancy story. Early in Luisa's pregnancy a woman named Señora Amelia teaches her about how to tell if she's pregnant.

4.My first pregnancy VII. Lines 12-15
12
''Tutamanda kama-ri-ngi,''   ni-wa-ra-mi;
  morning   press-RFLX-2SG.PRS say-me-3SG.PST-EV
''In the morning press yourself,'' she told me.
13
''Chi-mi   ishpa puru-i-ga   bola-nga   kan chichu-**kpi**,''   ni-wa-ra.
  there-EV bladder-LOC-TOP ball-3SG.FUT 2SG be.pregnant-**DS** say-me-3SG.PST
''There, near the bladder it will ball up, **if you're pregnant**,'' she told me.
14
Chi, ima shina-ta ni-wa-n,   ni-sha, tutamanda kama-ri-ra-ni   wiksa-i.
So   what like-ACC say-me-3SG say-SS morning   press-RFLX-PST-1SG stomach-LOC
So, in the way she had told me to do it, I pressed myself in the morning.
15
Bola m-a-shka-ra!
Ball EV-be-PERF-PST
And there was a ball there!

In line 13 there is a DS RC which looks back instead of forward, a clear violation of the Realization Condition. At first glance it would be easy to assume that *chichukpi* 'be pregnant' is subordinate to the immediately adjacent clause *niwara* 'she told me'. On the surface, it seems the switch-reference would work in this case. Luisa is the subject of quotation as 2SG 'you' and the following verb's subject is Señora Amelia.

However, it's not that simple given that this is a quotation within a clause. There are essentially two speakers here, Luisa the narrator and Señora Amelia. It seems this speaker

boundary exists between the quotation and 'she told me'. Therefore it is unlikely that this RC looks foward to *niwara*. Verbs within speech reports seem to be exempt from SR considerations. The best solution is a violation of the Realization Condition.

6.2. Discourse representation theory -DS

As mentioned in the previous chapter, DS *-kpi* occurs much less frequently than SS *-sha*. While that was found to be true I do not present an explanation for this, but I only analyze a possible explanation, given in Stewart (1988) for Conchucos Quechua, for PK. Stewart argues that while the SS marker encodes actions of the central participant of a narrative (main character) the DS marker does the same for peripheral subjects such as side characters and objects. In this section I will use examples to show that this analysis does not fit PK.

The first problem with this analysis is the problem of what or who exactly constitutes a central participant. Take for example The Chikwan speaks story. Luisa tells the story from her perspective about the time her uncle Emision was killed by the Auka. The most frequently occurring subjects, or characters that do things, are Luisa herself, Aunt Lola, Uncle Emision, and the Auka. According to Stewart, SS is reserved for the central participant(s). The following table shows these subjects and how many SS and DS marked clauses in the narrative are attributed to them.

Table 10 The Chikwan Speaks subject counts

Subject	Luisa	Aunt Lola	Uncle Emision	The Auka
-sha count	2	8	20	11
-kpi count	4	2	0	2

With zero DS RC's and the highest number of SS RC's it's tempting to declare Uncle Emision as the central participant. This requires that we extrapolate from Stewart and say that even if there are SS RC's being used for non-focal participants and DS RC's used for central participants, perhaps it's a matter of weighted counts. Since Uncle Emision has the most SS

RC's and fewest DS RC's perhaps he is the central participant of this narrative. However this instance may be a result of examining a fairly small sample. Table 11 shows the counts for the much large narrative, Adopting an Anaconda:

Table 11 Adopting an anaconda subject counts

Subject	Luisa	The anaconda	Luisa's children	The visitors
-sha count	44	27	13	4
-kpi count	19	4	1	2

The data in table 11 shows that Luisa marked her own actions with SS and DS more than the other subjects. Despite the fact that Luisa is marked with the most SS RC's she's also marked with the most DS RC's. This indicates that it would be difficult to say that she is the central participant when she is marked more than any other subject with DS. DS, according to Stewart, is used for peripheral subjects.

As in the previous chapter I conclude that Stewart's explanation for why there are more SS markers than DS RC's is not valid for PK. Again I do not attempt to explain the reason for the distribution, only that a proposed explanation for a related language, Conchucos Quechua, is not applicable to this variety.

6.3 DS Conditional construcitons

As described in the previous chapter Cole (1982) states that condition clauses can be formed by suffixing the topical marker to a SR marker in IK. I showed that this is also possible for SS marker -*sha in PK*. This section will examine instances of DS marker-*kpi* suffixed by topicalizers and evaluate any conditional functions if present. Solid conclusions are harder to substantiate in this section due to the relative paucity of verbs suffixed with both -*kpi* and -*ga* (PK's topicalizer). To begin I show an example from Cole of a conditional clause using both the DS marker and topicalizer.

5. Conditional clause, adapted from Cole (1982: 64)

Ñuka astaka kulki-ta japi-**jpi-ka** ñuka tayta ishkay llama-ta kara-wa-nga
1SG much money-ACC have-**DS-TOP** my father two sheep-ACC give-me-FUT.3SG
If I make a lot of money, my father will give me two sheep

In this example, the combination of the DS marker and the topicalizer act as an "if"

creating a conditional relation between adverbial clause and superordinate clause. The different

subject function is still preserved, as the subject of the adverbial clause is the speaker, and a

different subject, the speaker's father is the subject of the next clause.

In the sample only 9 total instances of -*kpi+ga* were found. Three of them could be

reasonably called conditional. The examples come from the same section of the narrative and

occurred close enough together to be put in one example.

6. Adopting an Anaconda XII. Lines 17-21
17
''Ña kan wawa-manda kasnata muna-chi-na wawa-manda wiba-shka-ga.''
 Before you child-from like.this-ACC want-CAUS-INF child-from raise-PERF-TOP
''Because you've (raised him) from a baby, he's so wantable,'' they would say.
18
Ñukanchi miku-sha tiya-w-**kpi-ga** ñukanchi kay-ma tiya-w-**kpi** nina kuchu ima-i
1PL eat-SS sit-DUR-**DS-TOP** 1PL here-to sit-DUR-**DS** fire corner what-LOC
And he was! If we were sitting around here or by the fire, sitting around and eating
19
Pay-wa-s ñukanchi laro-i monton montona-ri-sha si-ri-wa-ra,
3SG-with-also 1PL side-LOC mound mound-RFLX-SS lay-RFLX-with-PST.3SG
ri-ki!
look-IMP
He also would lie next to us, mounding himself up beside us, look!
20
Ñukanchi zas hata-ri-**kpi-ga** pay-wa-s paska-ri-sha ñukanchi chari
1PL IDEO get.up-RFLX-**DS-TOP** 3SG-with-also uncoil-RLFX-SS 1PL perhaps

may-ta ri-n
where-ACC go-3SG
Then if we'd get up suddenly zas, he also would uncoil himself, and wherever we'd go

21
Chita-mi apanaku-sha ri-k   a-ra: rrruna m-a-n,   amarun-ga!
Then-EV follow-SS   go-AGT be-PST human EV-be-3SG anaconda-TOP
He'd follow in that direction! The anaconda really is a person!

This example comes from the anaconda story and describes how the anaconda behaved

and would follow Luisa's family around their home. There are a number of interesting things in

this example. First in line 18 there's an example of -kpi not actually indicating SR. The first -*kpi*

on *sit* doesn't actually link it the following clause with another -*kpi* marked *sit* verb. Instead the

narrator appears to be reiterating the -*kpi* marked clause. In the example I show this by having

the arrows from the two -*kpi* marked clauses connect, for the purpose of evaluating SR relations

between clauses, I am considering them as a single clause. This 'single' clause can be seen in a

conditional relation with the following clause in line 19. **If** *we were sitting around the fire, he*

would also pile himself up and lie next to us... This same conditional construction is used in line

20, **If** *we'd get up, he would uncoil himself...*

While these examples supports Cole in showing that -*kpi+ga* can be used to create

conditional clauses it also shows conditional clauses that use the DS marker but lack the

topicalizer. The repeated -*kpi* marked clause in line 18 is without the topicalizer and yet it still

forms a conditional relation with the following clause. The next example is more straightforward

in terms of structural relations.

 7. Adopting an anaconda XIV. Lines 28-29
27
Chiga rik-wi,   ña   shuk kilya   washa soldado-guna,
So   look-IMP now one   month after   soldier-PLU
So then, look, now one month later, some soldiers,
28
Ñukanchi tiya-shka urku   punda a-ra?
1PL   be-PERF mountain top   be-PST.3SG
You know the top of the hill near where we lived?

29

Chita pasto   kiwa a-**kpi-ga**   pika-w-ra-wna.
So   pasture weed be-**DS-TOP** weed-DUR-PST-3PL
As there was overgrown pasture there, they were weeding.

…

31

Ramo   sapi-i-shi   tupa-ra   ñuka masha Tomas.
Branch base-LOC-EV find-PST.2SG my   masha Tomas
It was at the base of a twig that my Masha Tomas found him.

The DS RC in line 29 'as there was overgrown pasture there' links to the following CC

'they were weeding'. The pasture constitutes the subject of the RC and the soldiers (identified in

lines previous to this example) are the subject of the finite clause. This example could also be

translated as an conditional 'because' or 'since'.

The next example illustrates conditional relations without the use of the topicalizer and

describes the moment in which the son realizes the gravity of his mistake and realizes that if he

had been more attentive and noticed the discarded clothes by the pond, he wouldn't have

mistaken his mother for another woman.

8. Why people Grow old and Die Line 59

Ñuka mama   yaku-i   riku-gri-**kpi**,   ñuka mama   llachapa siri-u-shka-ra
my   mother water-LOC look-TRLC-**DS** my   mother clothing lie-DUR-PERF-PAST

ni-ra-shi   churi-ga
say-PAST-EV son-TOP
"If I had gone to look by the water, I'd have seen her clothes lying there." Said the son.

The first clause sets up the 'if': '***If I had gone to look by the water***'. The -*kpi* then

indicates that the subject of the next clause will be different. *'her clothes would have been lying*

there.' The subject of the following clause are the clothes. Despite the lack of the topicalizer

suffixed to the -*kpi*, this line very clearly carries a conditional construction.

These examples show that it isn't necessary for a -*kpi* to be suffixed by the topicalizer to

create these 'if' conditional relations. We also have to consider that the 'if' may not correspond

to any one morpheme at all. It is possible that condition is communicated by other more salient

factors such as context and even prosodic features like intonation.

Next I will show some of the other examples of *-kpi+ga* that were not conditional, most

did not appear to have additional meaning or function beyond the use of SR. The topicalizer

seems solely to add focus. One of them did show a possible time clause as was found in the

previous chapter for *-sha+ga*. That example will be addressed first.

9. Adopting an Anaconda VI. Lines 7-9
7
Linternan tas riku-ra-ni.
Lantern   tas see-PST-1SG
I would turn the lantern on tas and look.
8
Riku-**kpi-ga**   ukucha-ga ayyy!
Look-**DS-TOP** rat-TOP   EXLC
And when I looked, ayyy! There were so many rats!
9
Pay chasna tanda-chi-n.
3SG how   gather-CAUS-3SG
That's how he gathers them.

In example 8 there is some ambiguity concerning the SR function of the *-kpi*. If we

assume underlying clauses, then there are two clauses in line 8, with an underlying clause of

which the rats are the subject. Positing another underlying CC might be more plausible if we

want to push the sense of "when X happened, Y happened. *'When I looked, rats were there.'*

Otherwise we can link the DS marked clause to the finite clause in line 9, of which the anaconda

is the subject.

The use of the topicalizer serves as extra focus. In these examples the topicalizers

foreground the relevance of the adverbial clause's connectedness to the central clauses.

To conclude this section, Cole's assertion that the different subject SR marker suffixed by

the topicalizer creates a conditional clause cannot be substantiated for PK. While this
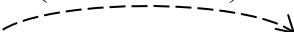
combination of suffixes can be used with conditional clauses, the fact that conditional clauses can be made without this combination and that this combination of suffixes does not always result in conditional constructions points to the conclusion that what makes SR conditional clauses in PK is related to complex contextual factors that are beyond the scope of this work. I explored some possible meanings but with the relative paucity of examples of this combination of suffixes found in the 5 context sample I cannot make more specific claims in that regard. Further research on a much larger sample is needed.

6.4 DS time clauses

Cole (1982) describes a number of ways in which time can be indicated in clauses besides the use of tense on finite verbs. Of interest to this discussion is the way in which time can be marked on a SR marked clause. The SR markers *-sha* and *-kpi* are understood to be tenseless and are said to "draw" tense from the finite clauses they are subordinated to. However according to Cole, there is a way in which SR marked clause can be used to indicate time relative to their controlling clauses. That is by suffixing the evidential clitic -mi to the SR marker. The following example illustrates the use of the DS in conjunction with the evidential -mi.

10. IK time clause of DS (Cole 1982: 61)

Ñuka Kitu-man chaya-**jpi-mi** rijsi   riku-wa-rka
1SG Quito-to   arrive-**DS-EV** acquaintance see-me-PST.3SG
When I arrived in Quito, a friend saw me

According to Cole, the use of the evidential on the DS marker is equivalent to the 'when' in the translation 'when X happened, then Y'. I searched for the equivalent construction kpi-mi (DS+EV) in the sample and none were found. Outside of the sample in the corpus there were only seven total occurrences of *-kpi+mi*. I will show two with the caveat that they come from texts which have not been completely translated or glossed. This means that the context may

have not been clear and as I have shown so far, context is vitally important for interpreting the functions on these examples.

The first example comes from a narrative entitled 'Finding Peruvian Spy Material'. Luisa recounts an experience from a time in which there were tense political relations between Ecuador and Peru. One day a group of Peruvian soldiers arrived at her village with ill intentions. In this example she describes their conversation amongst themselves.

11. Finding Peruvian Spy Material p. 552
1
Perdona-wa-y   mi teniente, ni-n-shi   ni-ra;
Pardon-me-IMP my lieutenant say-PRES.3SG-EVo say-PST.3SG
"Pardon me my lieutenant" he says, (according to someone).
2
ñuka pay-na   kacha-**kpi-mi** shamu-ni,   mana shamuna-ta-chu shamu-ni,
1SG 3SG-POSS send-DS-EV come-PRES.1SG NEG   come-ACC-NEG come-PRES.1SG
"Because he has sent me, I have come. Even though I wasn't supposed to come, I came."
3
ni-sha-shi   rima-sha, waka-n,   ni-ra,   perdona-wa-y!
say-SS-EVs speak-SS cry-PRES.3SG say-PST.3SG pardon-me-IMP
"saying that, speaking he cried and said 'pardon me!'"

The contributor translated these clauses as '*because* he has sent me, I have come'. It is also possible to interpret the combination of -*kpi* and -*mi* in line 2 as a time clause and we could translate the first two clauses in line 2 as 'when he sent me, I came'. All examples but one of the instances of -*kpi+mi* were similarly ambiguous in regards to an specific meaning created from the combination of the two suffixes.

This next example comes from a short narrative in which Luisa describes the life of a tree sloth. After eating a certain shoot in the rainforest canopy she attributes a emotional state to it.

12. Indiyama
ña chi tuku-ri-**kpi-mi**   llaki-lla riku-ri-sha   warku-ri-sha-ga
now DET finish-RLFX-**DS**-EV sad-just see-RFLX-SS hang-SS-TOP
Now, after everything runs out, he hangs there just looking sad.

This line contains a chain of SR clauses, the first containing the *-kpi+mi* combination. The subject of the clause are the shoots that the sloth ate, the sloth is then the subject of the following *-sha* marked clauses. This example does fit Cole's stipulation of a time clause. After/when the shoots were finished he hangs there looking sad. The lack of shoots is likely the reason the sloth appears to be sad, thus it's reasonable to assume that this *-kpi+mi* represents a temporal boundary of some kind though such a notion is more relevant in the next section.

As mentioned in the previous chapter, the most salient features of the evidential -mi are focus and making assertions about personal knowledge. In these two examples, Luisa likely used the evidential to emphasize that the marked elements were from the speaker's perspective. In example 11, the *-mi* draws attention to the fact that the soldier was sent by his superior officer, which explains why he came. Even in example 12, the *-mi* emphasizes the fact that the shoots are eaten up, and that is the reason why the sloth appears inert and sad. That example could also be translated as *'because everything was finished, he hangs there, looking sad'*. While some ambiguity exists in these examples it does seem that the DS marker with the topicalizer can create time clauses.

6.5. Aspect and manner of DS marked clauses

Cole (1982) talks about manner and aspectual characteristics of SR clauses. In the last chapter I untangled that relationship for the SS marker. I will continue on the assumption that Cole's notion of manner (two clauses being related or unrelated), is subjective and not very helpful. The discussion stems from the fact that in other dialects of Quechua, there are two separate SS markers. Cole (1983) describes the different SS markers as indicating manner [+/- related]. Ecuadorian Quechuan languages have lost this distinction, therefore Cole relies on context to determine the manner of a SS clause which in turn determines the aspectual relation of

that clause to its superordinate clause (simultaneous or sequential). Since the binary division of

manner does not exist for the DS marker, Cole does not consider manner as being applicable to -

kpi. So how then does Cole determine aspect for DS clauses? By means of what he calls

progressive aspect suffix, which I have labeled in previous examples as durative (DUR). I show

an example from Cole (1983) to illustrate.

13. durative DS adverbial clause, adapted from Cole (1983)

Ñuka trabaja-**ju-jpi**-mi   kan puglla-ngui
1SG   work-**DUR-DS**-EV 2SG play-2SG
While I work, you play

      The combination of DUR+DS is quite rare, there are only 12 instances in the entire

corpus and only two in the sample. These examples were given earlier in this same section, I

replicate them here but only with the relevant lines.

14. Canoe of Death Lines 4-5
4
Pay taw taw taw taw taw taw taw taw asiolya-ng   alya-**w-kpi**
3SG IDEO(x8)   planer-INST dig-**DUR-DS**
He was digging with the planer taw taw taw taw taw taw taw taw
5
Ah ow "aswa-ta   upi-k   sham-wi" ni-kpi
Ah ha   aswa-ACC drink-AG come-IMP say-DS
Ah hah, and when I said "Come and drink aswa"

      The dig verb in line four is suffixed by the combination of the durative and DS markers.

These indicate that the action in line four (Luisa's uncle hollowing out the canoe) occurs

simultaneously as the action in line five (when Luisa approaches and offers aswa to her uncle).

15. Adopting an Anaconda XII. Lines 18-19
18
Ñukanchi miku-sha tiya-**w-kpi**-ga   ñukanchi kay-ma tiya-**w-kpi** nina kucha ima-i
1PL   eat-SS   sit-**DUR-DS**-TOP 1PL   here-to sit-**DUR-DS** fire corner what-LOC
And he was! If we were sitting around here or by the fire, sitting around and eating

19

Pay-wa-s   ñukanchi laro-i   monton montona-ri-sha   si-ri-wa-ra,
3SG-with-also 1PL   side-LOC mound mound-RFLX-SS lay-RFLX-with-PST.3SG

ri-ki!
look-IMP
He also would lie next to us, mounding himself up beside us, look!

I reiterate this unusual example of the replicated -*kpi* marked clause. Both the clause and

its copy carry the durative marker. The action encoded in this clause (for this example I am

considering both to constitute a single adverbial clause), the sitting around the fire is understood

be simultaneous or ongoing as the action of the next clause, in which the anaconda coils up

besides Luísa's family.

The other examples in the corpus which have DS marked RC's with the durative also

appear to have a simultaneous aspectual relationship with their controlling clauses. DS marked

adverbial clauses which occur in a sequential relation with their controlling clauses would most

likely lack the durative, as is illustrated in the following example from the first pregnancy

narrative.

16. My first pregnancy I. Lines 9-10
9
Chasna-manda ñukanchi sami-ga   tas   chinga-ri-wa-ra.
Like-from   1PL   period-TOP IDEO leave-RFLX-me-PST.3SG
Well then, my period just left me tas completely.
10
chinga-ri-**kpi**,   ni-ra-ni,   ''kunan-ga ima-ta   tuku-ni?!''
leave-RFLX-DS speak-PST-1SG now-TOP what-ACC happen-1SG
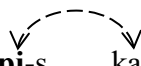When this happened I said ''Now what's to become of me?''

The first clause in line 10 refers to the action of line 9, which Luisa describes an instance

of her menstrual process before the pregnancy. The first clause in line 10 *chingarikpi* refers to

this, and the next clause contains *nirani* 'I said' followed by a quotation. It's clear in this

example the clauses are in a sequential relation, the action of the menstruation happened, and then Luisa spoke.

So far this seems to support Cole's notion of aspect for DS RC's as being applicable to PK. The use of the durative marker in a DS marked RC does indicate the event is simultaneous with that of the CC. However, to ultimately validate it, there would need to be examples in which all DS marked clauses without the durative maker have sequential aspectual relations with their controlling clauses. Unfortunately that is not the case. Of all the 55 standard (non-independent) -*kpi* marked clauses, only two used the durative. However, apart from those, a total of 29 were classed as being in a simultaneous aspectual relationship with their respective controlling clauses despite lacking the durative affix. Two examples are given below.

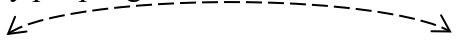17. The Chikwan speaks XIX. Line 8

payna   sara muyu-ta   shina illapa-**kpi**-s   kami-uuuuu-ra-mi.
3SG.POSS corn pellet-ACC like   shoot-**DS**-INCL insult-DUR-PST.3SG-EV
But she just kept insulting them as if they were shooting little pellets of corn at her!

This example comes from the Chickwan story in which the Auka have killed Uncle Emision and an infuriated Aunt Lola screams insults at the Auka from cover while the Auka shoot at her. Luisa emphasizes Aunt Lola's boldness by comparing the bullets to corn pellets. The subject of the first clause are the Auka, who are shooting at Aunt Lola, this action occurs simultaneously as the action in the finite clause, Aunt Lola insulting them. The durative marker is not present in the adverbial clause but is present in the finite clause. That durative information may be being pulled back into the RC from the CC.

19. Why people grow old and die. Line 40

riku-**kpi** chasna-llata-shi   bara-wan   kum-shi shamu-ra
look-**DS** like.that-LIM-EV stick-INST bent-EV come-PST.3SG
[When they found her there] This is what they saw: She came toward them hunched over, walking with the help of a stick.

In this example, the children from the Why people grow old and die narrative find their mother after she fled distraught from the house after the act of incest undid the ability for humans to shed their old skin and become young again. When she left the house she was in her younger body and now upon finding her, her body has become old once again. The subject of the first clause *rikukpi* are the children, and the action is them looking at their mother. The subject of the second clause is the mother, and the action is her walking towards them. These actions occur simultaneously, though the durative is not used.

I conclude this section with a few observations. First the main finding is that there does not appear to be a specific structure that determines the aspect of *-kpi* marked adverbial clauses. For IK Cole stated the combination of the durative and DS markers were necessary to indicate that the action in the adverbial clause occurs simultaneously as that of the controlling clause. I have shown examples that illustrate that does happen for PK but it is also not necessary. In the previous chapter I stated that context more than anything else determined aspect for -sha marked clauses and that appears to be the same case for *-kpi* marked clauses. Further research is then needed to determine what exactly the durative contributes to the meaning of *-kpi* marked clauses.

To conclude this chapter I summarize the findings about the DS marker -kpi in regards to the research questions. First DS marked RC's need not obey the Dependency Condition. They do not always require a CC with a finite verb. They also do not always obey the Realization Condition. DS marked RC's can look backwards to CC's as well as forwards. Second, they do not follow Stewart's discourse representation theory. DS can be used to mark the actions of all participants in a narrative regardless of their status as being either central or peripheral to the narrative. Counts showing SS and DS use for each subject also do not support a central versus peripheral dichotomy. Third DS marked RC's can be used with certain elements like topicalizers,

evidentials, and durative markers to create conditional clauses, time clauses, and indicate

aspectual relations. However none of those things appear to be required to create those semantic

meanings. Context above all else is the best determiner for conditional, time, and aspect. Uses of

the topicalizers, evidentials, and durative markers can be used to give depth to those functions

but they do appear to be required. The use of ideophones in DS marked RC clauses was not

investigated but certainly warrants more investigation in future research.

Chapter 7: Conclusion

7.1 Summary

In this chapter I summarize my findings and discuss limitations and implications for future work. First I will review the research questions and the findings pertinent to them.

1. Does switch-reference in Pastaza Kichwa obey the Dependency Condition? (Are SR marked clauses always dependent on finite controlling clauses?)

The best answer to this question is 'sometimes'. In 5.1 and 6.1 examples where shown that on the surface did not obey the Dependeny condition. SS and DS marked reference clauses were found with out any controlling clauses. Going by purely surface syntactic representation we can say that Pastaza Kichwa switch-reference violates the Dependency Condition.

However, in those examples the independent reference clauses could be feasibly connected to constituents without verbs. These verbless clauses have all the verbal semantics necessary but no overt verb. Thus positing the existence of an underlying verb in these clauses would fulfill the Dependency Condition.

2. If PK obeys the Dependency Condition, does switch-reference in Pastaza Kichwa obey the Realization Condition?

Clear and unambiguous examples presented in 5.1 and 6.1 showed that the Dependency Condition need not apply to switch-reference in Pastaza Kichwa. Examples were found in which the marked reference clauses pointed to clauses that preceeded them rather than pointing forward to following clauses. Stewart (1988) also found this in Conchucos Quechua.

3. Does the SS marker occur more frequently than the DS marker?

The results of the chi-square test in Chapter 4 indicate that in Pastaza Kichwa the same-subject marker *-sha* is used more frequently than the different-subject marker *-kpi*.

4. Is Stewart's (1988) basis of Discourse Representation theory (central vs. non-focal participant)

applicable to PK?

Stewart's Discourse Representation theory initially presented an attractive explanation to SR counterexamples. The higher rule of participant role payed a bigger part in assigning SS and DS values to SR marked clauses in Conchucos Quechua. Unfortunately, this could not be substantiated for Pastaza Kichwa. Subjects of all kinds could be marked for both SS and DS markers.

Not only is this not applicable to PK but I suspect a closer examination of this theory's applicability in Conchucos Quechua is also warranted. Stewart's data came from only three texts and Stewart does not provide a method of how the roles of central or non-focal participant were assigned. It appears to be entirely inferred. Potentially important elements to consider when pursuing this theory include divisions of narratives into "episodes" and other such narrative and discourse factors. Notions of what constitute those participants appear to be circular in logic as well. 'Subject X is the focal participant because subject X is consistently marked as SS. Subject X is consistently marked as SS because subject X is the central participant.' Overall much more data is needed to evaluate the validity of Stewart's Discourse Representation theory.

5. Can the combination of a SR marker plus the topicalizer create conditional constructions?

6. Can the combination of a SR marker plus the evidential suffix *-mi* create a time clause?

The answer to 5 and 6 is an unequivocal yes. As Cole (1982) described these constructions are valid in PK for creating conditional and time clauses. However, due to the variety of constructions presented by Cole to create those functions, the fact that conditional clauses can sometimes be interpreted as time clauses and vice versa, and the fact these specific constructions are not always needed show that these functions may have less to do with any one specific construction and more to do with inclusion of other elements like context and prosody.

Moreover, ideophones in PK complicate everything in a way that is unique for this variety, and no indication that they play a comparable role in IK.

7. Does a specific form signify the aspectual relationship between a SR marked clause and its controlling clause?

The answer to this question is no. Determining the aspectual relationship between a SR RC and CC appears to be almost entirely due to context and not to any specific combination of morphemes. In addition Cole's notions of the interrelatedness of manner and aspect are ambiguous and require closer examination.

In sum, this study sought to provide a basic description of switch-reference in Pastaza Kichwa. Some attention was given to potential theoretical underpinnings such as those of Stewart (1988). However my intention was not to discover a motivation for switch-reference universals, but rather to describe in simple terms how SR can be used in PK by analyzing in examples in context. This is an important note touched on by Stewart and Cole to a lesser extent. Some the of specific constructions shown in Cole (1982) as well as the equivalent constructions in PK show that a specific form is not necessary for the specific functions examined. Functions such as condition and time clauses appear to rely less on any one specific construction and more on the narrative context in which the utterance was given.

7.2 Limitations

The main limitation of this work is the small size of the qualitative dataset. Out the 40 total texts in the corpus only 5 had sufficient translation and gloss material to be of use for the qualitative analysis. The other 35 texts, despite having some tags are completely lacking in translations and broader glosses which are essential for contextual analysis. Translating and glossing the rest of the corpus would be monumental task well beyond the scope of this study.

Nor does this limit further qualitative analysis but more acutely the quantitative analysis. The counts reported in 4.2 were much too small for any kind of statistical method to make use of. Presumably if the entire corpus were glossed and translated, a contextual analysis of a larger sample would be more feasible and provide counts in sufficient numbers to work with.

The data itself may also be limited in its biases. All of the texts come a single particularly talkative speaker and my not be representative of the population of native speakers. In addition, most the texts are narratives given to a non-native researcher. Patterns of SR use may differ with other speakers and in other contexts such as casual conversations among native speakers or instructional dialog.

Finally, an important limitation to consider is the limited nature of having the written language alone to work with. PK is one of many languages which does not have a written tradition. Thus elements like intonation, gesture, and other forms of body language may convey important grammatical information that might otherwise be expected to be communicated in the linguistic form as represented by text. These examples might be better analyzed if there were video recordings of the speaker giving these narratives. Text corpora alone cannot give the full the context of linguistic content for a language like PK.

7.3 Implications and future work

Ultimately, the question of 'why does this matter' must be asked. The goal of language documentation is not only to explore theoretical models of language but also to drive revitalization efforts where applicable. A standardized form of Quechua (Kichwa Unificado) is currently taught in bilingual education programs in Ecuador. Children and other learners are being taught how to articulate structures in this language such as switch-reference. Operating under the canonical paradigm teachers might make certain stipulations about how to use SR. For

instance they might teach that a SR marked clause must always be followed by a finite CC. However the data from a native speaker in work shows that this is not necessary. The current pedagogical situation of Kichwa in Ecuador is well beyond the scope of this work, but it is safe to say that it can only benefit from the most accurate data possible.

Another important external implication of this study is that computational methods like corpus linguists can provide a useful tool for studying underrepresented languages like PK. CL and other such methods are typically used for 'standard' languages with large bodies of electronic text. Minority languages such as PK have for the most part been ignored due to the relatively small data sets and availability of text. However in recent years with improved technology and methods, 'documentary corpora' is starting to gain a foothold as an effective means of minority language documentation.

In regards to this study, a deeper investigation into my conclusions will require a lot of heavy lifting in COPK. The other texts need translations and glosses to be of more use. Even if COPK contained 5 million words and 10,000 texts it would still be limited in the types of research it could be used for. This will require collaborative efforts involving other researches and ideally speakers of PK.

In addition, future approaches to CL methods for PK and other languages of similar status would be ideally augmented by not just a textual representation of the content but also matching audio and video content. Not only is complete context of the narrative best to understand the examples shown in this study but situational context through additional mediums such as audio and video would also go a long way to getting at better analysis. Improved accessibility, storage capacity, and ease of use of audio and video technology is greatly facilitating this direction in the field of descriptive linguistics.

1	First person
2	Second person
3	Third person
ACC	Accusative
CAUS	Causative
DET	Determiner
DIFF	Diffusional
DS	Different-subject
DUR	Durative
EV	Evidential
FUT	Future
IDEO	Ideophone
INCL	Inclusive
INF	Infinitive
INST	Instrumental
LOC	Locative
NEG	Negative
PLU	Plural
PST	Past
RLFX	Reflexive
SIM	Similar
SG	Singular
SS	Same-subject
TOP	Topicalizer
TRLC	Translocative

REFERENCES

Adelaar, Willem F. H., and Pieter C Muysken. *The Languages of the Andes*. Cambridge University Press, 2004. Web. Cambridge Language Surveys.

Assmann, Anke. "An Interclausal Agreement Approach to Switch-Reference in Quechua." *Linguistic Variation* 12.2 (2012): 103–152. Web.

Chomsky, Noam. *The Minimalist Program*. 20th Centu. Cambridge: The MIT Press, 1995. Web.

Cohen, Clara. "Hierarchies , Subjects , and the Lack Thereof in Imbabura Quichua Subordinate Clauses." *Survey Reports, Survey of California and Other Indian Languages* (2013): n. pag. Web.

Cole, Peter. *Imbabura Quechua*. Ed. Bernard Comrie and Norval Smith. Vol. 5. Croom Helm: Croom Helm Ltd Publishers, 1982. Print.

---. "Switch Reference in Two Quechua Languages." *Typological Studies in Language, Volume 2 : Switch Reference and Universal Grammar*. Ed. John Haiman and Pamela Munro. Philadelphia, PA, USA: John Benjamins Publishing Company, 1983. 1–15. Web.

Cox, Christopher. "Corpus Linguistics and Language Documentation: Challenges for Collaboration." *Corpus-based Studies in Language Use, Language Learning, and Language Documentation* (2011): 239–264. Print.

Dreidemie, Patricia. "Aproximación al sistema de cambio de la referencia ('Switch-Reference') en Quechua Boliviano: Perspectiva gramatical y discursiva sobre el contraste -ʃpa -xti." *Revista LIAMES: Línguas Indígenas Americanas* 7 (2007): 81–96. Web.

Floyd, Simeon. "Imababura Quechua Corpus." 2016. Web.

Foley, William A, and Robert van Valin. *Functional Syntax and Universal Grammar*. Cambridge: Cambridge University Press, 1984. Print.

Haboud, Marleen. *Quichua and Spanish in the Ecuadorian Highlands: The Effects of Long-Term Contact*. Ed. Pablo Xavier Guzmán Paredes. Quito: Pontificia Universidad Católica del Ecuador, 2003. Print.

Haiman, John, and Pamela Munro, eds. *Switch Reference and Universal Grammar*. Amsterdam/Philadelphia: John Benjamins Publishing Co., 1983. Print.

Krieger, Daniel. "Corpus Linguistics: What It Is and How It Can Be Applied to Teaching." *The Internet TESL Journal* IX.3 (2003): n. pag. Web.

Max Planck Institute for Psycholinguistics. "LAC Cusco Quechua Corpus." 2014. Web.

McEnery, Tony, and Nick Ostler. "A New Agenda for Corpus Linguistics-Working with All of the World's Languages." *Literary and linguistic computing* 15.4 (2000): n. pag. Web.

Ministerio de Educación del Ecuador. *Kichwa Yachakukkunapa Shimiyuk Kamu*. Ministerio de Educación del Ecuador, 2009. Web.

Nuckolls, Janis et al. "The Quechua Ideophonic Dictionary." N.p., 2018. Web.

Nuckolls, Janis B. "From Quotative Other to Quotative Self: Evidential Usage in Pastaza Quichua." *Pragmatics and Society* 3.2 (2014): 226–242. Web.

---. "Ideophones' Challenges for Typological Linguistics The Case of Pastaza Quichua." *Pragmatics and Society* 5.3 (2014): 355–383. Web.

---. "Quechua Collection." Web.

---. "Sound Symbolic Involvement." *Journal of Linguistic Anthropology* 2.1 (1992): 51–80. Print.

---. *Sounds like Life Sound-Symbolic Grammar, Performance, and Cognition in Pastaza Quechua*. New York: Oxford University Press, 1996. Web.

---. "The Grammar and Images of Aspect in Lowland Ecuadorean Quechua." University of Chicago, 1990. Print.

---. "The Semantics of Certainty in Quechua and Its Implications for a Cultural Epistemology." *Language in Society* 22.2 (1993): 235–255. Web.

---. "The Systematic Stretching and Contracting of Ideophonic Phonology in Pastaza Quichua." *International Journal of American Linguistics* 82.1 (2016): 95–116. Web.

Orr, Carolyn. "Ecuador Quichua Clause Structure." *Studies in Ecuadorian Indian Languages*. Ed. Benjamiin F. Elson. Vol. 1. Summer Institute of Linguistics of the University of Oklahoma, 1962. 114–124. Print.

Pustet, Regina. "Switch-Reference or Coordination? A Quantitative Approach to Clause Linkage in Lakota." 79.2 (2013): 153–189. Print.

Stewart, Anne M. "Switch-Reference in Conchucos Quechua." *In Honor of Mary Haas: From the Haas Festival Conference on Native American Linguistics*. Ed. William Shipley. Berlin; New York; Amsterdam: Mouton de Gruyter, 1988. 765–785. Print.

Stirling, Lesley. *Switch-Reference and Discourse Representation*. Cambridge: Cambridge University Press, 1993. Web.

van Gijn, Rik. "Switch-Attention (Aka Switch-Reference) in South-American Temporal Clauses: Facilitating Oral Transmission." *Linguistic Discovery* 10 (2012): 112–127. Web.

---. "Switch Reference in Western South America." *Switch Reference 2.0*. Amsterdam: John Benjamins Publishing Company, 2016. 153–229. Web. Typological Studies in Language.

Weber, David John. *A Grammar of Huallaga (Huánuco) Quechua*. London: University of California Press, 1989. Web.

---. "Switch-Reference: Quechua." *Studies of Switch-Reference*. Ed. Pamela Munro. Los Angeles: Department of Linguistics University of California, Los Angeles, 1979. 48–64. Print.