Switch-Reference as Interclausal Agreement Evidence from Quechua

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Claim: SR-marking is the result of interclausal agreement in tense

- In Quechua, SR-markers are tense markers which occur whenever the clause has no tense feature of its own but must enter into tense agreement with a superordinated clause.
- Tense agreement enables the comparison of referential indices of the respective subjects.
- If the indices of two subjects are identical, the SS-marker is used; if not, the DS-marker is used.

1 Data and Observations

Observation 1: SR is canonical (Cole 1982, 1983; Weber 1989)

- (1) Same Subject Marker -shpa (Ancash)
 - a. chakra-chaw urya-*shpa*, pallamu-rqu-u wayta-kuna-ta
 field-in work-SS pick-RPST-1 flower-PL-ACC
 'While I worked in the field, I picked flowers.' (*Cole 1983, 2f.*)
 - b. *chakra-chaw urya-shpa, María pallamu-rqu-n wayta-kuna-ta field-in work-SS Maria pick-RPST-3 flower-PL-ACC
 'While I worked in the field, Maria picked flowers.'

(Cole 1983, 3)

- (2) Different Subject Marker -pti (Ancash)
 - a. chakra-chaw urya-*pti-i*, María pallamu-rqu-n wayta-kuna-ta field-in work-DS-1 Maria pick-RPST-3 flower-PL-ACC 'While I worked in the field, Maria picked flowers.' (*Cole 1983, 3*)
 - b. *chakra-chaw urya-*pti-i*, pallamu-rqu-u wayta-kuna-ta field-in work-DS-1 pick-RPST-1 flower-PL-ACC
 'While I worked in the field, I picked flowers.' (Cole 1983, 3)

Observation 2: In SR-clauses, agreement markers are taken from the nominal paradigm, even though neither nominalizing nor case

morphemes occur overtly. (Cole (1983); Lakämper and Wunderlich (1998); Cole and Hermon (2011))

a.	punu-nki		
	sleep-2		
	'you sleep'	(Lakämper and Wunderlich 1998, 119)	
b.	wamra-yki		
	child-2		
	'your child'	(Lakämper and Wunderlich 1998, 119)	
c.	Alqu-wan puklla-pti-yki wamra asi-n.		
	dog-INSTR play-DS-2 child	laugh-3	
	'When you play with the dog, the child laughs.'		
	'When you play with the dog, the child laughs.'		

(Lakämper and Wunderlich 1998, 122)

Observation 3: In SR adverbial clauses no tense and case markers occur; tense is determined in reference to the superordinated clause (Cole 1982, Weber 1989)

(4) Huallaga	
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a. tamya-<u>na</u>-n-<u>pita</u> rain-NMLZ.FUT-3-ABL 'because it is going to rain'

b. maqa-rkU-ma-<u>shpa</u>-n-<u>Ø</u> hit-thereupon-10BJ-SS-3 'after he hit me' $non\mathchar`SR$ adverbial clause, Weber 1989, 294

SR adverbial clause, Weber 1989, 298

Observation 4: SR markers occur in the position of the tense marker (Cole 1982, Lakämper & Wunderlich 1998)

- (5) Ancash
 - a. rika-ya-ma-rqa-yki see-PL-10BJ-PST-2 'you(pl) saw me/us' 'you(sg) saw us'
 - b. rika-ma-pti-yki see-10BJ-DS-2 'when you see me'

Lakämper and Wunderlich 1998, 115

Lakämper and Wunderlich 1998, 123

Note: Lakämper & Wunderlich (1998:115,fn.1) (emphasis in the original): "2nd person is marked by *-nki* on verbs and by *-yki* on nouns and nominalized verbs. It is an idiosyncrasy of Ancash that *-rqa* triggers the nominal affix *-yki* instead of *-nki*."

2 Analysis

2.1 Assumptions

Syntactic Structure:

- 3 functional projections above VP: v, T, C
- nominalized clauses are headed by D
- in Quechua, all phrases are right-headed
- (6) ($[_{DP})[_{CP}[_{TP}[_{vP}[_{VP}DP_1V]DP_2v]T]C](D]$)

Syntactic Operations:

- Merge (Chomsky 1995):
 - (7) MERGE $(\{\alpha\},\{\beta\}) = \{\alpha, \{\alpha, \beta\}\}$
- Agree (Chomsky 2001; Baker 2008; Richards 2008):
 - (8) AGREE (P[*F*:], G[F:VAL]) = P[*F*:VAL], G[F:VAL]iff
 - a. P and G are in a c-command relation and
 - b. G is matching P in F

Note: F can be a single feature or a feature set, i.e. a probe can consist of one feature or more than one features. In case a probe P consists of more than one feature, a goal G has to match all its features and values (cf. Richards (2008); Assmann (2010))

• Head movement (cf. Roberts 2010):



Referential indices:

• Following Řezáč (2004), I assume that referentiality is encoded by a valued feature [*i*], which takes part in Agree.

- (10) $\begin{bmatrix} & & \\ & &$
- In what follows, I take the idea of indices as features one step further and assume, that they can probe independently from other features.
 - (11) $\begin{bmatrix} I_{XP} & I_{YP} & ZP[\{\phi:3sg\}, \{\iota:i\}] & Y \end{bmatrix} X[\{*\phi*:_\}, \{*\iota*:_\}] & \longrightarrow Agree \\ & I_{XP} & I_{YP} & ZP[\{\phi:3sg\}, \{\iota:i\}] & Y \end{bmatrix} X[\{*\phi*:3sg\}, \{*\iota*:_\}] & \longrightarrow Agree \\ & I_{XP} & I_{YP} & ZP[\{\phi:3sg\}, \{\iota:i\}] & Y \end{bmatrix} X[\{*\phi*:3sg\}, \{*\iota*:i\}] & I_{YP} & I_$

Tense:

- Tense shows similarities to pronouns; tense is a referential feature (Partee 1973; Kratzer 1998; Schmitt 2000)
- Tense can be a probe feature (cf. e.g. Szucsich 2008)
- The referentiality of tense is encoded in tense indices, just like the referentiality of noun phrases. Tense indices have a different semantic type (*i*).

(12) T [{*tense*:__, * ι_i *:__}, {* ϕ *:__, * ι_e *:__}]

Note: Probes are marked by curly brackets { }.

Morphology:

- Distributed Morphology (Halle and Marantz 1993; Noyer 1997):
- Syntactic features are realized post-syntactically (*Late Insertion*)
- Vocabulary items do not have to be fully specified (Underspecification)
- If two or more vocabulary items match a context, the most specific one has to be inserted into a syntactic context (*Specificity*)

2.2 The syntactic structure of Quechua

Empirical facts:

- Verbal/clausal categories (agreement, TAM, complementizing, nominalizing functions) are realized as verbal suffixes (Cole 1982). There are no independent particles in Quechua.
- Suffixes appear in a fixed order:
- (13) Suffix Ordering in Quechua I and Quechua II dialects (adapted from Lefebvre and Muysken 1988, Lakämper and Wunderlich 1998, 116)

- a. QI: Stem-Number-Object-Aspect/Tense-Person-Mood-(Case)
- b. QII: Stem-Object-Aspect/Tense-Person-Mood-Number-(Mood)-(Case)

Analysis:

- Feature specifications of functional heads:
- (14) a. v: ϕ -features object
 - b. T: aspect/tense features; ϕ -features subject
 - c. C: mood
 - d. D: case
 - Quechua has massive head movement and obeys the Mirror Principle (Baker 1985).
- (15) *The Mirror Principle* (Baker 1985, 375) Morphological derivations must directly reflect syntactic derivations (and vice versa).



Notes:

- Head movement of the verbal stem (V) derives the fact that all categories are realized as suffixes rather than as independent particles (under the assumption that head movement feeds affixation).
- Features are morphologically realized by their respective markers, e.g., a tense feature is realized by a tense marker.

• Adopting the Mirror Principle, the morphological derivation must reflect the syntactic derivation, i.e., the order in which syntactic operations (Merge, Agree) apply.

2.3 Interclausal agreement

Empirical facts

- In some adverbial clauses (SR-clauses), tense is not referential but anaphorical, i.e., if the superordinated clause is past, the adverbial clause is understood as past as well (Cole 1982; Weber 1989).
- Subordinated clauses usually precede the superordinated clause but they may also follow it (Cole 1982; Weber 1989).

Analysis

- Adverbial clauses are left-adjoined to the TP.
- Anaphorical tense is implemented as a probe tense index feature, which needs a value from another tense index.
- Furthermore, the tense feature itself is a probe. The tense probe enters into Agree with the tense feature of the superordinated clause.
- In Quechua the probes on T in SR-clauses are formed as follows:
- (17) T[{* ϕ *:..., * ι_e *:..., *tense*:...}, {* ι_i *:...}]
 - Now, at one point in the derivation, T of the adverbial clause has agreed with its subject and received values for $[\phi]$ and $[\iota_e]$, but no values for [tense] and $[\iota_i]$.
- (18) $T[\{\frac{*\phi^{*}:3sg,\frac{*\iota^{*}}{\iota_{e}}:l, *tense^{*}:_\}, \{*\iota_{i}*:_\}]$
 - Now, if T wants to agree with the matrix T in tense features, this is only possible, if the matrix T has the same values for $[\phi]$ and $[\iota_e]$, due to the matching condition of Agree (8-b) (cf. Richards 2008).
 - **Proposal**: When the features of the subordinated and the matrix T do not match, [*tense*] of the subordinated T is valued as default.



Notes:

- Due to a deficient tense feature, the adverbial clause has to enter into Agree with the matrix clause.
- Agree is possible since, due to head movement of T to C—which is needed for independent reasons—the tense feature of the matrix clause c-commands the probe tense feature of the subordinated clause.

Scenario I





- The probe which contains the tense feature and the valued ϕ and ι_e features can enter into an Agree relation with the c-commanding C-head since the values of the ϕ and ι_e features are identical on both the goal and the head (cf. matching condition (8-b)).
- The probe tense feature receives the value of the c-commanding nonprobe tense feature.
- In a second Agree relation, the probe tense-index ι_i , which consitutes a probe of its own, is valued.

Scenario II





- The probe which contains the tense feature and the valued φ and ι_e features can**not** enter into an Agree relation with the c-commanding C-head since the values of the φ and ι_e features are **not** identical on both the goal and the head (cf. matching condition (8-b)). In fact, the indices ι_e are different.
- The probe tense feature *does not* receive the value of the c-commanding non-probe tense feature.
- Nevertheless, the probe tense-index *l*_i, which consitutes a probe of its own, can enter into an Agree relation and receive a value.

2.4 Morphological Realization

According to the analysis above, the tense feature comes in four different forms:

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(22) where \alpha \in \{pst, pres, fut\}
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a. C+T+v+V [{tense:\alpha, *\phi*:3sg,*t_e*:j},\{t_i:t\},...]
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b. D+C+T+v+V [{tense:\alpha, \ast \phi \ast:3sg,\ast t_e \ast:j},{\iota_i:t},...]
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c. D+C+T+v+V [{*tense*:\alpha, *\phi*:3sg, *t_e*:j}, {*t_i*:t},...]
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d. D+C+T+v+V [{*tense*:def,*\phi*:3sg,*t_e*:j},{*t_i*:t},...]
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- Quechua languages differentiate verbal and nominal tense markers (cf. Cole 1982; Hintz 2007; Cole and Hermon 2011)
- Simplifying over the complex pattern of tense markers, the tense markers (for Imbabura Quechua) are as follows (cf. Cole 1982, 142f.; for discussion see Kusters 2003; Hintz 2007):

	verbal markers	nominal markers
present	Ø	/j/
past	/rka/	/shka/
future	/nga/	/na/

Note: There is actually no future marker per se. Rather, the future and person markers are realized as a portmanteau morpheme.

- (24) Vocabulary Insertion Rules
 - a. $\emptyset \leftrightarrow [\text{pres}]$
 - b. $/rka/ \leftrightarrow [pst]$
 - c. $/nga/ \leftrightarrow [fut]$
 - d. $/j/ \leftrightarrow [pres]/D$
 - e. $/shka/ \leftrightarrow [pst]/D$
 - f. $/na/ \leftrightarrow [fut]/D$
 - The difference between the tense markers in (24) and the SR-markers /shpa/ and /pti/ (and their analogues in other dialects than Ancash) is that the tense values are acquired via Agree and are not present throughout the derivation.
 - /pti/ differs from all other tense markers in that it is the realization of a default tense value: /pti/ ↔ [def].

(23)

• The simplest way to ensure the insertion of /shpa/ over other markers is to say that the difference between probe and non-probe feature plays a role in morphological realization.

(25) Vocabulary Insertion Rules

- a. $\emptyset \leftrightarrow [\text{tense:pres}]$
- b. $/rka/ \leftrightarrow [tense:pst]$
- c. $/nga/ \leftrightarrow [tense:fut]$
- d. $/j/ \leftrightarrow [\text{tense:pres}]/D$
- e. $/shka/ \leftrightarrow [tense:pst]/D$
- f. $/na/ \leftrightarrow [tense:fut]/D$
- g. $/shpa/ \leftrightarrow [*tense*pres]|[pst]|[fut]$
- h. /pti/ \leftrightarrow [*tense*def]

3 Deriving the 4 main facts about Quechua SR

Observation 1: SR is canonical (Cole 1982, 1983; Weber 1989)

- This follows directly from the formation of features into complex probes.
- The SS-marker occurs if tense Agree is possible, i.e., if the features $[\iota_e]$ and $[\phi]$ have the same values.
- The DS-marker occurs, if the features $[\phi]$ and $[\iota_e]$ on T do not match, i.e., if tense Agree is not possible.

Observation 2: In SR-clauses, agreement markers are taken from the nominal paradigm, even though no nominalizing nor case morpheme occurs overtly (Cole (1983); Lakämper and Wunderlich (1998); Cole and Hermon (2011))

- Contrary to Weber (1989); Cole and Hermon (2011), all subordinated clauses—including SR-clauses—are nominalized, i.e. headed by D.
- Nominal agreement markers occur in the context of D, which is given in SR-adverbial clauses.
- Note that analyses that claim SR clauses to be verbal, have to derive this fact by an additional stipulation.

Observation 3: In SR adverbial clauses no tense and case markers occur; tense is determined in reference to the superordinated clause (Cole 1982, Weber 1989)

• Tense markers cannot coocur with SR-markers since both are competing for realizing the same feature.

- Assuming that case is a reflex of Agree (Chomsky 2000) and that Agree with a certain head H triggers case c_H , it is expected that SR-clauses are not case-marked. Agree with T leads to nominative casemarking, which is realized by a null-morpheme in Quechua. Since the SR-clause agrees with the superordinated T, its D-head should receive nominative case, realized by a null morpheme, which blocks insertion of other (overt) case markers. Note, however, that in contrast to other case-marking configuration, the probe (subordinated D) rather than the goal (superordinated T) is case-marked.
- The reference to the superordinated clause with respect to tense is established by tense index Agree. This analysis is conform to analyses of anaphorical tense that involve binding (cf. Kratzer 1998).
- If referential index features for noun phrases can be maintained, having tense index features is a natural extension to the system since tense is claimed to be a referential feature as well (Partee 1973; Kratzer 1998; Schmitt 2000).

Observation 4: SR markers occur in the position of the tense marker (Cole 1982, Lakämper & Wunderlich 1998)

• Again, this follows if SR-markers realize tense features.

4 Comparison with other approaches

Determination of the SS/DS-Marking

- In contrast to other approaches (Finer 1985; Broadwell 1997; Watanabe 2000; Camacho 2010; Weisser 2009), SS and DS-markers are not different heads with different feature specifications.
- Rather, the occurrence of a marker depends on the feature manipulation in the syntax (see also Georgi 2009; Keine 2011).

SR-Markers and referentiality

- In contrast to the approaches of McKenzie (2007); Georgi (2009); Keine (2011), referentiality and indices play a role in SR marking.
- The main challenge of analyzing SR is to rule out coincidental coreference in canonical different subject marking contexts. In analyses where a relation between two propositions is only established in context of SS-marking (either by movement (Georgi 2009), agreement (Camacho 2010) or argument sharing (Keine 2011)), additional stipulations must be invoked to ban coincidental coreference.

• In this interclausal agreement approach, canonical DS-marking follows from the assumptions.

Implementation

• Index features:

The analysis is based on the assumption that referential indices are syntactic objects. Such features seem to violate the inclusiveness condition (Chomsky 1995). However, it might be argued that referential indices of features are already present in the numeration (with values yet to be specified) and differ from indices of traces that are created by movement. Furthermore, if referential indices are not present in the syntax, binding cannot be a syntactic operation. (Note that a simple binding feature [* β *] as proposed by Fischer 2004 also violates inclusiveness for the same reasons and is probably not enough to analyze structures where the binding configurations are ambiguous.)

- (26) Hans_i sagt, dass Peter_j glaubt, dass $er_{i/j}$ ihm_{i/j} helfen soll. Hans says that Peter believes that he him help should 'John says that Peter believes that he should help him.'
 - Complex probes:

The idea of complex probes have been successfully argued for in Richards (2008); Assmann (2010), where it is shown that if probes can consist of more than one features (which is given, whenever one assumes a single ϕ -probe), PCC and indefiniteness effects can be derived in a simple and natural way. Hence, the assumption of complex probes is needed for independent reasons.

• Default values:

If the assumption that indefinites do not have a person feature (Richards 2008) or that 3rd person is absence of person (Kayne 2000; Sigurðsson 2001; Anagnostopoulou 2003), a mechanism for insertion of default values is needed anyway.

• Morphological realization:

The morphological analysis above assumes that the realization of a feature depends on whether it is valued by Agree or not in order to make a difference between the SS-marker /shpa/ and the other tense markers. This assumption might be interesting for other morphosyntactic phenomena as well. Alternatively, one could assume that the feature structure of T with a probe tense features differs from T with no probe tense features (e.g. with respect to the bundling of features

into probes). Then, the reason for insertion of /shpa/ instead of some other tense marker with the same feature value would be that the structural context is different.

5 Conclusion

Summary:

- I have shown that an analysis of Quechuan switch reference as tense agreement is able to derive puzzling facts about the distribution of the SR markers (canonicity, complementary distribution with tense and case markers, nominal person agreement suffixes).
- The analysis is build on the idea that the probe tense feature together with the probe ϕ -features and index feature of the subject constitute a complex probe such that the tense feature can only be valued if the goal has matching ϕ and index features.
- If agreement is possible, the SS-marker is inserted; if not, the DS-marker is used.

Outlook:

- It might be interesting to see to what extent this analysis can be transferred to other languages which have switch reference marking and which features other than tense are involved.
- The verbal morphology surrounding switch reference is also interesting. Quechua dialects differ in whether they allow person suffixes after the SS-marker or not. Furthermore, as already mentioned, the exact analysis of tense/aspect markers in Quechua dialects could be of interest to gain more insights into switch reference marking in Quechua.

References

Anagnostopoulou, Elena (2003), The Syntax of Ditransitives. Evidence from Clitics, de Gruyter, Berlin.

Assmann, Anke (2010), Verbal Agreement and PCC Effects in Tagalog, *in* S.Bank, D.Georgi and J.Trommer, eds, '2 in Agreement (Linguistische Arbeitsberiche 88)', Universität Leipzig, pp. 163–195.

Baker, Mark (2008), The Syntax of Agreement and Concord, Cambridge University Press, Cambridge.

Broadwell, George A. (1997), Binding theory and switch-reference, *in* H.Bennis, P.Pica and J.Rooryck, eds, 'Atomism and Binding', Foris, Dordrecht, pp. 31–49.

Camacho, José (2010), 'On Case Concord: The Syntax of Switch-Reference Clauses', Natural Language and Linguistic Theory **28**(2), 239–274.

Chomsky, Noam (1995), The Minimalist Program, MIT Press, Cambridge, Massachusetts.

Baker, Mark (1985), 'The mirror principle and morphosyntactic explanation', *Linguistic Inquiry* **16**(3), 373–415.

- Chomsky, Noam (2000), Minimalist Inquiries: The Framework, *in* R.Martin, D.Michaels and J.Uriagereka, eds, 'Step by Step. Papers in Minimalist Syntax in Honor of Howard Lasnik', MIT Press, Cambridge, chapter 3, pp. 89–155.
- Chomsky, Noam (2001), Derivation by Phase, *in* M.Kenstowicz, ed., 'Ken Hale: A Life in Language', MIT Press, Cambridge, Massachusetts, pp. 1–52.
- Cole, Peter (1982), *Imbabura Quechua*, Vol. 5 of *Lingua Descriptive Studies*, North Holland Publishing Company, Amsterdam.
- Cole, Peter (1983), Switch-Reference in two Quechua Languages, *in* J.Haiman and P.Munro, eds, 'Switch-Reference and Universal Grammar', John Benjamins, Amsterdam/Philadelphia, pp. 1–16.
- Cole, Peter and Gabriella Hermon (2011), 'Nominalization and case assignment in Quechua', *Lingua* **121**, 1225–1251.
- Finer, Daniel (1985), 'The Syntax of Switch-Reference', Linguistic Inquiry 16(1), 35-55.
- Fischer, Silke (2004), Towards an Optimal Theory of Reflexivization, PhD thesis, University of Tübingen. Georgi, Doreen (2009), Switch Reference by Movement. Ms. Universität Leipzig.
- Halle, Morris and Alec Marantz (1993), Distributed Morphology and the Pieces of Inflection, *in* K.Hale and S. J.Keyser, eds, 'The View from Building 20', MIT Press, Cambridge Massachusetts, pp. 111–176.
- Hintz, Diane (2007), Past tense forms and their functions in South Conchucos Quechua, PhD thesis, University of California, Santa Barbara.
- Kayne, Richard (2000), Parameters and Universals, Oxford University Press, Oxford.
- Keine, Stefan (2011), On deconstructing switch-reference. Ms. Universität Leipzig.
- Kratzer, Angelika (1998), More structural analogies between pronouns and tenses, *in* 'Proceedings of SALT VII', Ithaca (Cornell University).
- Kusters, Wouter (2003), Linguistic Complexity, PhD thesis, LOT (Netherlands Graduate School of Linguistics).
- Lakämper, Renate and Dieter Wunderlich (1998), 'Person marking in Quechua A constraint-based minimalist analysis', *Lingua* 105, 113–148.
- Lefebvre, Claire and Pieter Muysken (1988), *Mixed Categories: Nominalizations in Quechua*, Kluwer Academic Publishers Group, Dordrecht.
- McKenzie, Andrew (2007), Switch-reference and situation semantics, in A. R.Deal, ed., 'Semantics of Under-represented Languages of the Americas 4', GLSA, Amherst, Massachusetts.
- Noyer, Rolf (1997), Features, Positions and Affixes in Autonomous Morphological Structure, Garland Publishing, New York. Revised version of 1992 MIT Doctoral Dissertation.
- Partee, Barbara Hall (1973), 'Some structural analogies between tenses and pronouns in english', *The* Journal of Philosophy **70**(18), 601–609.
- Řezáč, Milan (2004), Agree and Merge. Ms. University of Toronto.
- Richards, Marc (2008), Quirky Expletives, in R.d'Alessandro, G. H.Hrafnbjargarson and S.Fischer, eds, 'Agreement Restrictions', Mouton de Gruyter, Berlin, pp. 181–213.
- Roberts, Ian (2010), Agreement and Head Movement: Clitics, Incorporation, and Defective Goals, Vol. 59 of Linguistic Inquiry Monographs, MIT Press, Cambridge, Massachusetts.
- Schmitt, Christina (2000), Some consequences of the complement analysis for relative clauses, demonstratives and the wrong adjectives, in A.Alexiadou, P.Law, A.Meinunger and C.Wilder, eds, 'The Syntax of Relative Clauses', John Benjamins, Amsterdam, pp. 309–348.
- Sigurðsson, Halldór (2001), 'Case: abstract vs. morphological', Working Papers in Scandinavian Syntax 64, 103–151.
- Szucsich, Luka (2008), Subjunktivsätze, tempusmerkmale und referenzbeziehungen in slavischen (und romanischen) sprachen. Handout, Linguistisches Kolloquium Ludwig-Maximilian Universität München.
- Watanabe, Akira (2000), 'Feature Copying and Binding: Evidence from Complementizer Agreement and Switch Reference', Syntax 3(3), 159–181.

Weber, D. J. (1989), A Grammar of Huallaga (Huánuco) Quechua, University of California Press, Berkeley. Weisser, Philipp (2009), Switch Reference as Diathesis. Ms. University of Leipzig. Acknowledgement:

I am indebted to the audience at the workshop "The Fine Structure of Grammatical Relations", December 2010, as well as the participants of the Seminar "local modeling of non-local dependencies in syntax" at the department of linguistics at the University of Leipzig.

This research was funded by the DFG (Deutsche Gemeinschaft für Forschung) within the project "Lokale Modellierung nicht-lokaler Abhängigkeiten in der Syntax (local modeling of non-local dependencies in syntax).

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