Co-Indexation in Predicate Argument Structure: The Characteristics of Quechua Ku

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Résumé de l’article

Le but de cet article est d’analyser les caractéristiques de l’affixe verbal ku en quechua. Nous nous interrogeons sur la possibilité d’analyser de la même manière des constructions du quechua qui, en d’autres langues, sont réputées être le résultat de mouvement-NP. Je propose qu’il est interdit que la position externe ne reçoive pas de rôle thématique au niveau de la Structure Prédicative Argumentale. L’effet de ku peut être décrit comme une co-indexation d’un argument interne avec la position externe dans la projection de la Structure Lexicale Conceptuelle sur la Structure Prédicative Argumentale. Ainsi serait permise la projection de verbes, qui, dans d’autres langues, sous-catégorise une position externe nulle.
1. Introduction

In this paper I will present data from the Amerindian language Quechua that bear on the controversial question whether passive and like constructions are the result of movement in syntax or have to be accounted for in the lexicon (Wasow, 1977; Bresnan, 1982; Marantz, 1984).

Although the Southern Quechua II dialects (Torero, 1974), which form the basis of this article, do not have an English-type passive (Muysken, 1986), they do have constructions that could be analyzed as cases of syntactic movement. I will, however, argue for a lexical analysis. The claim that will be made is that Quechua verbs, with the exception of the copula ka, do not allow for a theta-less external position, a sine qua non for NP movement in syntax. With all other verbs that do not have an argument that is directly mapped onto the external position, the verbal affix ku co-indexes this position with an internal argument in the process of mapping from Lexical Conceptual Structure (LCS) to Predicate Argument Structure (PAS) (Hale & Laughren, 1983). In that way not only the obligatory affixation of ku to verbs that only subcategorize for an internal argument is accounted for, but also its occurrence in a range of other types of constructions.

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The following glosses will be used in the text:

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<td>TOP</td>
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In the following section the different possibilities of *ku* will be treated, and then, in the third section some basic claims about the organization of the grammar will be made. On the basis of the data for verbs with one internal argument that will be presented in section 4, I will argue against a syntactic movement, and for a co-indexation analysis. In section 5 it will be shown that this analysis works for the Quechua reflexives as well. Section 6 is devoted to other constructions that are characterized by the use of *ku*.

2. The possibilities of *ku*.

The verbal affix *ku* can be used in a range of different constructions, with a different effect. Central to the analysis proposed here is that it has to be used with verbs that only have one internal argument. The following three cases can be distinguished in Quechua:

a. the equivalent of English unaccusative constructions:

(1) Mariya urma - ku - rqa
    Maria fall RE 3PA
    'Maria fell'

b. a class of verbs that can be characterized as expressing mental states:

(2) Pedru kusi - ku - n
    Pedro happy RE 3
    'Pedro is happy'

c. verbs that are formed by *lli*-affixation, which express that an object takes the form or the characteristic that is expressed by the noun or sometimes by the verbal root to which it is attached:

(3) Pedru warmi - lli - ku - n
    Pedro woman TRNS RE 3
    'Pedro becomes womanlike'

With transitive verbs that semantically allow for a co-indexation of Agent and Theme it may mark a reflexive interpretation. But it can also mark co-referentiality of Agent and Goal or Beneficiary:
(4) Xwan maylla - ku - n
Juan wash RE 3
'John washes himself'

(5) Xwan libru - ta qu - ku - n
Juan book AC give RE 3
'Juan gives himself a book'

(6) Xwan libru - ta ranti - ku - n
Juan book AC buy RE 3
'Juan buys himself a book'

On the basis of transitive verbs so-called 'middle' constructions can be formed:

(7) trigu - manta t'anta - qa ruwa - ku - n
corn of bread TOP make RE 3
'Bread is made from corn'

With inherent causation verbs it can form «anti-causatives»:

(8) sillu - y - mi p'aki - ku - n
finger 1 AF break RE 3
'My finger broke'

The last possibility of ku that will be treated in this article\(^1\) is its use in impersonal perception clauses:

(9) Xwan allin riku - ku - n
Juan good see RE 3
'Juan looks fine'

1. Besides the possibilities treated here ku can also be used in other constructions. Cerrón-Palomino (1987, p.272) mentions that in the Central Peruvian dialects, the Quechua I dialects (Torero, 1974), instrument nominalizations can be formed with the agentive marker q, in addition to 'mediopassive' ku :

(i) kuchu - ku - q
'Knife'

Coombs (1988) has analyzed ku as a detransitivizing affix for Northern Peruvian dialects. In this construction, ku is indicating a «general or characteristic action» and as «de-transitivizing transitive verbs». When ku is present in this use, the action is seen as non-specific or as characteristic of the actor, but when it is absent, the action is specific, with an object specified or understood. Notice the following contrastive examples:

(ii) Juana - qa - m bayeta - ta awa - shqa
TOP AF shawl AC weave 3SD
'Juana wove the shawl' (Coombs, p.30)

(iii) María - qa - m awa - ku - shpa tiya - q
TOP AF weave RE SS live NOM
'María lived (by) weaving' (Coombs, p.31)

«In the first example, the direct object 'shawl' is obligatory, because it specifies the scope of the activity of weaving. In the second example, a direct object is optional. It would be possible to mention that shawls are what María weaves, but the focus is on the fact that she customarily weaves.» (Coombs, 1988, p.8).
3. Projecting lexical structure

I will adopt the representation of the lexicon as proposed in the work of Hale & Laughren (1983) and subsequent work in that framework and assume that verbs have a Lexical Conceptual Structure (LCS) which defines the «meaning» of a verb and which contains the variables over which a verb is predicating. These variables are mapped onto a Predicate Argument Structure (PAS), a level of representation in which there is a fundamental difference between the external position and the internal ones, cf. (10), but no categorial projection:

(10)
\[ \text{arg} \quad \text{PRED} \]
\[ \text{arg}_1^{i}..\text{arg}_n^{n} \quad \text{V} \]

Agents and Causers are typically mapped onto the external position; Patients, Themes, Recipients, and Beneficiaries on internal positions. This assumption is in line with Williams' (1981) theta-grid and his claim that there is a fundamental difference between internal arguments and the external argument. The latter is underscored and by definition mapped onto the external position.

The arguments in the PAS are mapped onto a syntactic tree, which in the simple cases leads to an isomorphic structure. A simplified representation is the following, cf. (11), where the external argument, the Agent Maria, is realized in subject position:

(11)
\[ \text{NP} \quad \text{VP} \]
\[ \text{NP} \quad \text{V} \]
\[ \text{Mariya} \quad \text{wawa\(-\)ta} \quad \text{maylla\(-\)n} \]
\[ \text{Maria} \quad \text{child AC} \quad \text{wash} \quad \text{3} \]

PAS:
[Agent][Patient [maylla]]
'Maria washes the child'

I assume that in Quechua V assigns structural case to any element in the VP, i.e. the Patient, and that nominative case is assigned to the argument in subject position. The fact that a third person object is interpreted, even when there is no lexical NP present, is clearly in support of a strict adherence to the Theta-criterion and the
Projection Principle (Chomsky, 1981). In principle all arguments have to be mapped onto a syntactic position, and I assume that there is a pro object in (12):

(12) Mariya\textsubscript{i} proj maylla - n
    Maria wash 3
    'Maria washes it/him'
    '*Maria washes'

While such assumptions work fine for intransitive and transitive verbs that project an external argument, verbs that have only an internal argument in LCS consequently only project one internal argument onto the PAS. For languages like English the Extended Projection Principle (Chomsky, 1982) assumes that such verbs can be mapped onto syntactic structure since a non-theta marked external argument is always projected. As these so-called unaccusative verbs are assumed not to assign case to the internal argument this position is a landing site for the unaccusative arguments. They can be moved there in syntax to get case, in analogy to the analysis for passives (Burzio, 1981, 1986).

I will follow this analysis here but assume that it is a characteristic of Quechua verbs that they do not allow for an empty external position in the PAS, in that way excluding an analysis in terms of syntactic movement. Only the copula ka 'be', which merits a study by itself, allows for such an empty external position in the PAS, in that way licensing movement in syntax. The analysis I will give for all the other verbs that do not project an external argument is that the verbal affix ku can create a co-indexation chain between an internal argument and the external position in the PAS, in that way creating a wellformed structure that can be mapped onto syntax.

4. Movement or co-indexation: verbs with one internal argument

In my view the analysis of the verbs with one internal argument is central to the understanding of the affix ku. Ku-affixation is obligatory with such verbs and I will use this as an argument against an analysis in terms of syntactic movement, and in support of a lexical analysis. I assume that the lexical structure for such verbs is as in (13):

(13) [Theme V]
In English this would be an un-accusative verb that assigns the theta-role Theme to its argument, but does not assign case. Mapping onto a syntactic tree produces the right structure for movement as the Theme has to be realized in the subject position that is governed by INFL to get case; we then get the following structure, cf. (14):

\[
(14) \quad \begin{array}{c}
\overset{I'}{e} \\
\text{NP} \\
\text{Maria}_i \\
\text{Theme} \\
\text{fall}
\end{array}
\overset{VP}{\text{V}}
\overset{I}{\text{fall} \text{ PA}}
\]

'Maria fell'

In the following sections it will be shown that such a syntactic analysis is impossible for Quechua which has a lexical means of realizing the internal argument in external position.

4.1 The «unaccusatives»

The first group of verbs that will be discussed is formed by those verbs that have become known as unaccusatives, cf. fall. Assuming that in Quechua the theta-grid of *urma 'fall', *tiya 'live', and *suskha 'slip', is also [Theme V], one would expect that this argument could be realized in the external position by movement in syntax without any overt marking on the verb. The point is, however, that this leads to ungrammaticality: *ku has to be added to create an acceptable verb form:

\[
(15) \quad \begin{align*}
\text{a. } & \quad \text{*Mariya urma - rqa} \\
& \quad \text{fall 3PA}
\text{b. } & \quad \text{Mariya urma - ku - rqa} \\
& \quad \text{Maria fall RE 3PA}
\end{align*}
\]

'Maria fell'

In what way the ungrammaticality of (15a) can be explained? I assume that in contrast to English any VP-internally realized argument receives case in Quechua (Lefebvre & Muysken, 1988). When the Theme would be mapped onto an internal position in the PAS, it would be realized as a VP internal argument in the syntax
and thus get structural case. If it subsequently moves to the empty external position to which nominative is assigned, a case clash would result since it would be assigned case again.

This can not be the whole story, since assuming structural case assignment one would expect (16) to be grammatical:

$$\text{(16)}\quad *\text{pro} \quad \text{Mariya} - \text{ta} \quad \text{urma} - n$$

Maria AC fall 3

(litt.) 'It falls Maria'

I assume that such an impersonal construction, in which there would be an expletive pro that would not receive a theta-role, is impossible since Quechua does not allow for a theta-less external argument in the PAS.

The only way to create an acceptable mapping from LCS onto the syntax is via co-indexation of the internal and external position in the PAS and that is exactly what ku does. It creates a chain via which the internal argument can be realized externally:

$$\text{(17)}\quad \text{Mariya} \quad \text{VP}$$

$$\text{urm} \quad \text{ku}$$

Theme fall RE

'Maria fell'

A strong argument for such an analysis is the fact that causative formation on the basis of verbs with one internal argument yields derived forms in which ku is not allowed²:

$$\text{(18) a.} \quad \text{Pedru} \quad \text{Mariya} - \text{ta} \quad \text{urma} - \text{chi} - n$$

Pedro Maria AC fall CAUS 3

'Pedro makes Maria fall'

² It might be the case that this is the result of a morpho-phonological deletion rule proposed by Muysken (1988) for the Southern dialects that are also the subject of this article. While the Central Peruvian dialects allow for the combination ku-χi, cf. (i), the Southern dialects do not.

(i) \quad \text{Maria} \quad \text{wawa} - n - \text{ta} \quad \text{maylla} - \text{ku} - \text{chi} - n \quad \text{child} 3 \text{AC} \quad \text{wash} \text{RE CAUS} 3 \quad \text{"Maria makes her child was himself/herself"}

The argument proposed here is supported by the fact that in the Central dialects we do find urma-χi-n, while urma-ku-χi-n is ungrammatical.
b. *Pedru Mariya - ta urma - ku - chi - n
   AC    fall RE CAUS 3

Following Williams (1981) I assume that lexically the result of causative formation is the addition of a Causer to the [Theme V] base of urma, which leads to a standard transitive structure

3:

(19) urma 'fall'
   chi-causative
   urma-chi 'make fall'

<table>
<thead>
<tr>
<th>[Theme V]</th>
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<td>[Ag [Theme V]]</td>
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The Causer now has to be realized as the external and the Theme as the internal argument. I assume that (18b) is ungrammatical since this would lead to a structure with two external arguments

4.

4.2 Mental states

Verbs that express mental states behave in exactly the same way as the 'unaccusative' verbs discussed above. Examples are: kusi 'be happy', laki 'be sad' and phiña 'be angry'. Affixation of ku is necessary: verb forms without ku are ungrammatical, cf. (20):

(20) a. Pedru kusi - ku - n
     Pedro happy RE 3
     'Pedro is happy'

b. *Pedru kusi - n
   happy 3

Causativization again creates a transitive structure, which doesn't allow for ku-affixation:

(21) a. Pedru Mariya - ta kusi - chi - n
     Pedro Maria AC happy CAUS 3
     'Pedro makes Maria happy'

3. Since the Theme is realized internally it receives structural case, in the same way as the former external argument of intransitive verbs, that do not assign case internally, also gets accusative case after causativization:

(i) Pedru wawa - n - ta puri - chi - n
    child 3 AC    walk CAUS 3
    'Pedro makes his child walk'

4. The fact that the Causee, the external argument of the base verb, can be the antecedent for the reflexive in the Central Peruvian dialects, cf. (i) note 2, indicates that at least in these dialects it is possible to have two 'external' arguments. This is a strong argument for the cyclic treatment of affix interpretation (Muysken, 1981).
4.3 Verb formation: «self-transformative» lli.

According to Cusihuaman (1976, p.196) the suffix lli "indicates that an object takes the form or the characteristic that is expressed by the noun or sometimes by the verbal root to which it is attached." Again we find that an inflected form requires the affixation of ku:

\[(22)\] a. Pedru warmi - lli - ku - n  
Pedro woman TRNS RE 3  
'Pedru becomes womanlike'

b. *Pedru warmi - lli - n  
woman TRNS 3

As might be expected external causation of this transformation can be expressed by the affixation of chi, in which case ku cannot be expressed:

\[(23)\] a. mama - y warmi - lli - chi - wa - n  
mother 1 woman TRNS CAUS 1OB 3  
'My mother has made me womanlike'

b. *mama - y warmi - lli - ku - chi - wa - n  
mother 1 woman TRNS RE CAUS 1OB 3

Assuming that lli creates a verb with only one internal argument, the same analysis as presented above can be applied to these cases as well.

5. Reflexives

An interesting question for languages like Quechua, which have morphological reflexive marking on the verb – an example is repeated in (24) – is how we arrive at the reflexive interpretation and what kind of element, if there is any, is in the empty object position.

\[(24)\] Xwan maylla - ku - n  
Juan wash RE 3  
'John washes himself'
The following examples clearly show how the Binding principles apply in Quechua. The ungrammaticality of (25) indicates that a pronoun cannot be interpreted anaphorically under a co-referential interpretation, while (26) shows that a pronoun cannot occur in a 'anaphorically' marked position, due to the fact that a pronoun has to be free in its domain.

\[
(25) \quad \text{*Xwanj payj - ta maylla - n} \\
\text{he AC wash 3}
\]

\[
(26) \quad \text{*Xwanj pay; - ta maylla - ku - n} \\
\text{he AC wash RE 3}
\]

As expected proper names can not occur in this position either:

\[
(27) \quad \text{*Xwan Mariya - ta maylla - ku - n} \\
\text{AC wash RE 3}
\]

Extending the central idea developed above that \textit{ku} co-indexes an internal argument with the external position in the PAS, an analysis for the reflexive is straightforward: on the basis of transitive verbs a co-indexation of an internal argument with the external position produces the required reflexive interpretation. I will assume that referential indexes are freely assigned. When the external position is co-indexed with the internal Theme it gets the same referential index. When the external argument is then mapped onto this position, the only way to create a well-formed structure is when it has the same referential index as the external position, and by consequence the internal Theme, which is how the reflexive interpretation is arrived at.

The question then remains: what kind of element is in the empty object position? In (28) it is shown that body parts are allowed with accusative case. We can interpret this as indicating that case and theta-role are assigned to an empty position of which the body part is predicated (the superscripts mark the predication relation):

\[
(28) \quad \text{Xwanj e}_{j}^{i} uya - n_{i} - ta^{j} maylla - ku - n} \\
\text{face 3 AC wash RE 3}
'Juan washes his face'
\]

The fact that reflexive marking on the verb is obligatory, cf. the ungrammaticality of (29), is in support of this analysis:
(29) *Xwan<sub>i</sub> e<sub>j</sub> uya - n<sub>i</sub> - ta<sub>j</sub> maylla - n

face 3 AC wash 3

It is clear that sentence (29) is grammatical when it refers to a situation in which Xwan is washing someone else's face. The body part is predicated of a small pro that must have an index different from Xwan, due to principle A of the Binding theory. I will assume that arrive at a reflexive interpretation ku must mark the co-referential relation between the two NPs by co-indexation. (29) is incorrect in such an analysis because both arguments bear the same referential index, without being co-indexed. The reason for the contrast between (28) and (29) is thus that in Quechua body parts form part of a small clause; the index of the head is marked on the whole NP. This is not so strange in the case of body parts as these nouns are not individual entities but always part of a whole (Hale, 1981). A tree representation is shown in (30):

(30)

That is also the reason for the ungrammaticality of (31), where the body part is not marked for person:

(31) *Xwan uya - ta maylla - ku - n

face AC wash RE 3

---

5. Comparable facts hold for the object markers:

(i) mama - y pro<sub>1</sub> uma - y<sub>1</sub> - ta maylla - wa<sub>1</sub> - n

mother 1 head 1 AC wash IOB 3

'My mother washes my head'

Here the co-referential relation between the first person object and the body part must be explicitly marked, cf. the ungrammaticality of (ii-iii):

(ii) *mama - y uma - y - ta maylla - n

mother 1 head 1 AC wash 3

(iii) *mama - y uma - ta maylla - wa - n

mother 1 head AC wash IOB 3
I assume that there is an element in object position of which the body part is predicated; this element is case marked and gets a theta role as well. The analysis for the transitive reflexive interpretation is quite clear and can be readily transposed to the other cases of reflexive interpretation:

(32) Xwan libru - ta ranti - ku - n
book AC buy RE 3
'Juan bought himself a book'

One could assume the beneficiary to be an internal argument of the verb *rant*, 'buy', that can be co-indexed with the external position in the PAS. In that case one would expect comparable facts as with verbs like *qu* 'give', that also subcategorize two internal arguments. This is, however, not the case. With these verbs a third person «small pro» Recipient is obligatorily interpreted:

(33) libru - ta qu - rqa - ni
book AC give PA 1
'I gave him a book.'
'*I gave a book'

For third person beneficiaries this is not the case:

(34) libru - ta ranti - rqa - ni
book AC buy PA 1
'I bought a book'

We find the same contrast in object marking on the verb that is obligatory with *qu*, and impossible with *rant* :

(35) a. libru - ta qu - wa - n
book AC give 1OB 3
'He gives me the book'

b. *noqa - man libru - ta qu - n
I to book AC give 3

(36) a. *libru - ta ranti - wa - n
book AC buy 1OB 3

b. noqa - paj libru - ta ranti - n
I for book AC buy 3
'He buys a book for me'
These facts suggest that the beneficiary is not a direct argument of *ranti* 'buy'. As far as reflexive marking is concerned we do not find this same contrast:

(37) libru - ta qu - ku - n
    book AC give RE 3
    'He gives himself a book'

(38) libru - ta ranti - ku - n
    book AC buy RE 3
    'He buys himself a book'

While object marking is limited to «direct» arguments, that is to say realized VP internally, reflexive marking seems to be unconstrained, in that it also can co-index non-arguments with the external position in the PAS. *ku* can even be used to express personal involvement of the subject:

(39) danza - ku - n
    dance RE 3
    'He dances by himself'

Hence this analysis forces us to the conclusion that optional beneficiaries or participant arguments may be present in the PAS, since at this level co-indexation takes place.

6. Argument reduction

The link that exists between reflexives, middle constructions, and anti-causatives has often been noticed within widely different frameworks (Dik, 1983; Marantz, 1984). The most prominent characteristic of the following constructions that can be formed by the affixation of *ku* is that the external argument of the base verb is suppressed. It will be shown that the analysis proposed above works for these cases as well.

6.1 Middles

On the basis of transitive predicates *ku* can be used to form so-called middle constructions:
This sentence can be paraphrased as 'it is bread that one makes from corn'. What has to be accounted for is the fact that the Agent can no longer be expressed. I claim that in Quechua the underlying structure of these cases is completely parallel to the reflexives treated above. It is possible to create sentences that are ambiguous between a reflexive and a middle reading:

\[(41) \text{kay - manta wawa - qa espeju - pi riku - ku - n} \]
\[\text{this from child TOP mirror LOC see RE 3}\]

'From here the child can see itself in the mirror'

As the verb \text{ruwa} allows for two animate arguments, the Experiencer and the Patient can bear the same index, leading to the reflexive interpretation. If they do not the sentence is interpreted as a middle. A verb like \text{ruwa}, however, subcategorizes for an animate Agent and an inanimate Patient; reflexive interpretation is impossible and only the middle interpretation remains, cf. (40) above.

Often the «middle» construction is analyzed in the following way: the reflexive marker absorbs the case assigning property of the verb and at the same time it absorbs the theta role that is normally assigned to the external argument; this is completely in line with the Burzio (1981,1986) hypothesis. To get case the internal argument then has to move into subject position at S-structure. None of these operations can be used in the analysis proposed here. I will assume that \text{ku} co-indexes the internal argument with the external position in the mapping from LCS onto PAS, in that way blocking the expression of the Agent that is normally mapped onto that position:

\[(42) \text{[Ag [Patient ruwa]]} \rightarrow \text{[Patient} \_\text{e}_{1} \text{ruwa ku]}\]

It has often been noted that the Agent, although it cannot be expressed, has to be present in order to get the right interpretation for possible adverbials such as 'easily', which modify the way in which the action is typically performed. I would like to follow Keyser and Roeper's (1984) analysis of Romance \text{si}: after the affixation of \text{ku} the Action predicate \text{ruwa} is altered in a Stative one; (40) describes a
characteristic of 'bread', i.e. that it is normally made from corn. The expression of a State is incompatible with the expression of an Agent, although it remains present in the underlying semantic structure.

6.2 Anti-causatives

The anti-causatives form a class of verbs that, at least in many Indo-European languages, can have a transitive and an intransitive realization, without overt morphological marking. English examples are *sink*, *grow*, and *break*. The alternation seems to be pervasive in Quechua where the intransitive/transitive contrast is expressed by the presence or absence of *ku*. As to the discussion on the question whether one variant is the basic form, I will follow Marantz (1984) who claims that neither is. Re-interpreting his analysis, I claim that in the lexicon two LCSs are associated with this class of verbs: a transitive causation predicate and a one place process predicate:

\[
\begin{align*}
(43) & \quad \text{ sillu - } y - t a - m i \quad p' a k i - r q u - n \\
& \quad \text{finger 1 AC AF break INT 3} \\
& \quad \text{Intentionally he has broken my finger}
\end{align*}
\]

\[
\begin{align*}
(44) & \quad \text{ sillu - } y - m i \quad p' a k i - k u - n \\
& \quad \text{finger 1 AF break RE 3} \\
& \quad \text{My finger broke}
\end{align*}
\]

In light of the discussion on verbs with one internal argument such as *urma* 'fall', it is not surprising that the affixation of *ku* to the intransitive variant is necessary to create a well-formed PAS.

6.3 Impersonal perception clauses

Another type of construction in which *ku* is obligatorily used is in impersonal perception clauses:

\[
\begin{align*}
(45) & \quad \text{ Xwan allin riku - ku - n} \\
& \quad \text{good see RE 3} \\
& \quad \text{Juan looks fine}
\end{align*}
\]

It seems logical to derive such constructions from the Small Clause Perception complements that exist in Quechua:
(46) Xwan - ta allin - ta riku - ni
    AC good AC see 1
    'I see that Juan is fine'

Assuming that in this case the small clause complement is the internal argument of the verb *riku* 'see', co-indexation of this argument with the external position in the PAS would lead to a middle-like interpretation, which is the desired one.

The verb *riku*, however, also allows for nominalized clauses as complement, whether they have a verbal (47) or a nominal character (48) (Lefebvre & Muysken, 1988):

(47) Xwan - ta hamu - sqa - n - ta riku - ni
    AC come NOM 3 AC see 1
    'I have seen that Juan has come'

(48) Xwan - pa - ta hamu - sqa - n - ta riku - ni
    GEN AC come NOM 3 AC see 1
    'I have seen that John has come.'
    'I have seen John's coming'

Such sentences can never be impersonalized, a fact that is not easily explained in the analysis presented above:

(49) *Xwan hamu - sqa - n riku - ku - n
    come NOM 3 see RE 3

(50) *Xwan - pa hamu - sqa - n riku - ku - n
    GEN come NOM 3 see RE 3

For the moment I have no account for this disparity.

7. Conclusion

The aim of this article was to give an account of the characteristics of the Quechua verbal affix *ku*. I assumed that the Lexical Conceptual Structure of a verb contains an unordered list of thematic arguments that has to be mapped onto a Predicate Argument Structure. In the PAS there is a distinction between the external position and the internal ones. Linking rules prescribe that Agents and Causers are mapped onto the external position, while other arguments are realized internally. It was claimed that with the exception of some constructions with the copula *ka,*
Quechua does not allow the external position to remain without a theta-role in the PAS, in that way excluding syntactic NP-movement. In order to license the projection of verbs with one internal argument in LCS, this argument has to be mapped onto the external position in the PAS. The effect of *ku* was analyzed as: co-index an internal argument with the external position. In that way the projection of verbs with only one internal argument is accounted for by a lexical operation. With transitive verbs this co-indexation of an internal argument with the external position can disarrange the standard argument linking, leading to the reflexive and middle interpretation.

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