

# Coordination and Switch-reference: Evidence from Capanahua

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## Introduction

In this paper, we will address an interesting crosslinguistic generalization: languages with Switch-reference (hence, SR) marking generally lack productive use of conjunctions or lack conjunctions altogether, whereas languages that have productive conjunctions, usually lack SR. We will argue that this complementary distribution suggests that SR and coordination are different manifestations of the same phenomenon: propositional union. The SR-coordination connection will be illustrated with Capanahua, a Pano language spoken in Eastern Peru that has a complex SR marking system (and lacks productive overt conjunctions). We will propose that SR involves a functional projection of the same type as the one proposed by other researchers for coordination. Furthermore, we will argue that the projection linked to SR and the only associated with coordination serve the same purpose: it is the locus where information from each of the clauses/conjuncts is gathered -through head movement- and matched -through spec-head agreement.\*

## 1 Restricted Coordination

Languages like English or Spanish allow coordination of all constituents, as shown in (1) for Spanish.

- (1) a. Los perros y los gatos no toman vino. [DP and DP]  
the dogs and the cats not drink wine  
'Dogs and cats don't drink wine.'
- b. Los perros corren y saltan mucho. [V and V]  
the dogs run and jump a lot  
'Dogs run and jump a lot.'
- c. Los hermosos y monumentales edificios de Macchu Pichu están  
the beautiful and monumental buildings of Macchu Pichu are  
rodeados de montañas. [Adj and Adj]  
surrounded of mountains  
'The beautiful and monumental buildings of Macchu Pichu are surrounded by mountains.'
- d. Compramos un juego para Daniel y para Laura. [PP and PP]  
bought a game for Daniel and for Laura  
'We bought a game for Daniel and for Laura.'

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In other languages, the ones we will call *restricted coordination languages*, coordination is restricted in two ways: first, it is coordination is restricted to clausal projections, and second, these languages lack productive overt conjunctions, as illustrated in (2) from Capanahua.<sup>1</sup>

- (2) Juan taʔ nokot -aʃ -bi ka -ʔiki.  
 Juan DECL arrive -SR<sub>a</sub> -then go -3P.PRES.FACT  
 ‘Juan came and left.’

Ngiyambaa, an Australian language spoken in New South Wales (cf. Donaldson (1980)), is a good example of a restricted coordination language. In the next section, we review the distribution of joined constituents in this language.

## 2 Ngiyambaa

Ngiyambaa has very restricted ways of conjoining constituents. In particular, according to Donaldson (1980):249, it is not possible to conjoin nominals inside a clause (but see below for an exception). The only productive way of coordinating two constituents is by using one of two morphemes *-yanbi:* and *-mindi:* in a structure which resembles VP deletion. Donaldson classifies these two morphemes as topic enclitics: they cliticize to a topic. *-yanbi:*, for example, marks a new topic with the same function as a constituent in the preceding sentence (examples from Donaldson 1980: 247-8).

- (3) bura:y -galga: yadama mayimi -nja / guni: -yanbi:=nu:  
 child -PL+DIM+ABS good+ABS seem -PRES / mother+ABS -TOPIC=2 OBL  
 ‘The kids look good, and so does your mother’

- (4) ɲadhi: -gu miri -gu girbadja gadha -ɽa / ɲuruy -yanbi:  
 I+OBL -ERG dog -ERG kangaroo+ABS bite -PRES / emu+ABS -TOPIC  
 ‘My dog catches kangaroos, and emus too’

Neither (3) nor (4) can be analyzed as in situ DP-coordination, because Ngiyambaa is SOV, and in these examples the second DP-conjunct is always final (cf. Zoerner (1995): 147 for a similar situation in Tsümpisa Shoshone). Suppose that these examples involve clausal coordination with deletion of some sentential material in the second conjunct, as in (5b), where two full IPs are conjoined and *I'* is null. Whether the deleted material is *I'* or a higher phrase, for example TopP doesn't affect our reasoning: what we are interested in is whether conjunction is at least as high as IP.

- (5) a. bura:y -galga: yadama mayimi -nja / guni: -yanbi:-nu:

<sup>1</sup>We will be using the following glosses: ABS=absolutive, CIRCUM=circumstantial, CIRC=circumstantive, CNTR.ASSERT=counter assertion, COMIT=comitative, DECL=declarative, DIM=diminutive, ERG=ergative, EST=established, FACT=factual, INTER=interrogative, NARR=narrative, OBL=oblique, PL=plural, PROP=propositional, REP=reportative, SR=switch-reference, TNS=tense.

b. [IP child good seem] & [IP mother-*yanbi*: I'<sub>0</sub>] (I'<sub>0</sub> = *mayimi-nja* 'seem good')

If this analysis were correct, it would explain why *-yanbi*: and *-mindi*: are classified among the discourse clitics that attach to the topic of a sentence. These clitics usually appear sentence-initially, as shown (6) (from Donaldson (1980): 255) for the counter-assertion clitic *-baga*. In this example, the clitic attaches to the sentence-initial topic *guyan* 'shy.'

(6) *guyan -baga: -dhu gaɾa*  
 shy+ABS -CNTR.ASSERT -1NOM be+PRES  
 'But I am shy!'

Is there any evidence that these two clitics are topic enclitics? We believe there is: Ngiyambaa has two types of pronominals: free forms and enclitics. The latter are always bound to the topic of a clause (cf. Donaldson (1980):130), so the presence of an enclitic pronoun serves as a diagnostic for a topic position. Enclitic pronouns can follow *-yanbi*: and *-mindi*:, as shown by the position of *nu*: in (3) (from Donaldson 1980: 247).<sup>2</sup> This suggests that *-yanbi*: and *-mindi*: are indeed topic enclitics that appear in the second position of the clause. It also follows that there must be some clausal structure after the clitic, as the analysis in (5) would suggest.

In addition to conjoining individual constituents, the topic marker also conjoins full clauses, as illustrated in (7). To be consistent with the assumptions made earlier, the structure of these sentences would also have to involve topicalization of the whole second conjunct to the left of *yanbi*:

(7) a. *winar -u mayiŋgiyi bagiyi / dhurgalaŋ -gu gulama -nhi*  
 woman -ERG fail+PAST / dig -PAST man -ERG hunt  
*-yanbi*:  
 unsuccessfully -PAST -TOP  
 'The women did no good digging and the men missed out hunting too'

b. *ɲana -la: giyanhdha -nha ɲidji -la: mayinj -dji /*  
 that -ABS-EST fear -PRES this +CIRC+EST person -CIRC /  
*mayi ɲina -la: giyanhdha-nha ɲarbu-yanbi*:  
 person+ABS this+ABS-EST fear -PRES enough -TOP  
 'That one is afraid of this fellow and this fellow is affraid enough too'

As mentioned above, there is no other way of "conjoining nominals within a sentence, except to list proper names (Donaldson 1980: 249)." Proper names are marked with a special suffix *-gaN* (cf. (8a)). When two proper names appear together, they also show a collective quantifier *-bula* (cf. 8b).

(8) a. *Mamie -gam -bula: manabi -ɲji*  
 Mamie -PROP -DUAL+ABS hunt -PAST  
 'Mamie, together with one other person, went hunting'

<sup>2</sup>Thanks to Donaldson for pointing this out.

- b. Mamie           -gam           -bula: Eva   -gam           -bula: manabi -nji  
 Mamie-NAME -DUAL+ABS Eva   -NAME -DUAL+ABS hunt   -PAST  
 ‘Manie and Eva (and no one else) went hunting’

The facts just described suggest that Ngiyambaa is a restricted coordination language which lacks productive clause-internal coordination and resorts to an ellipsis structure involving clausal projections.

### 3 Capanahua

Like Ngiyambaa, Capanahua, a Pano language spoken in Eastern Peru, also belongs to the class of restricted coordination languages, as we will show in the following section. Unlike the Australian language, it has a very productive Switch-reference (SR) system. As other SR languages, it lacks productive coordination. We will argue that this implicational typology is not accidental, but rather stems from the fact that SR is the way in which these languages join clauses.<sup>3</sup>

#### 3.1 Restrictions on Coordination in Capanahua

Capanahua has very restricted overt coordination. In particular, DPs are typically not conjoined, despite three apparent types of counterexample, illustrated in (9) ((9a) is from Loos & Loos (1980): 16, #25, (9b), from Loos & Loos (1980): 37, #9, (9c), was elicited during field work by José Elías-Ulloa and Enrique Espinoza, July 2001).

- (9) a. *hati?ibi*, *poa*, *yobin*, *kari*, *haabo* ?*inan-kin* *hi?mares*.  
 all, potato, huitina root, sweet potato, they give-NARR uncooked  
 ‘They gave everything uncooked: potatoes, huitina roots, sweet potatoes.’
- b. Rono, *hati?ibi* *yohina?* -bo *kii* *kan*, *xano*.  
 snakes, all animals -GENER REP+be well there  
 ‘There were snakes and all kinds of animals there.’
- c. Juan *bitan* *Maria* -n *ta?* *mani* *pi* *-?iki*.  
 Juan COMIT Maria -ERG DECL banana eat-3P.PRES.FACT  
 ‘Juan eats bananas with Mary.’

The first sentence, (9a), has a universal quantifier with a list of DPs that details the members of the set denoted by the universal quantifier. It can be argued that this is not a case of true coordination of argumental DPs, since it must appear with a universal quantifier. The structure for (9a) would involve a direct object (*sati?ibi* ‘all’ and adjoined to it the list of elements denoted by that object: *poa* ‘potatoes’, *yobin* ‘huitina root’ and *kari* ‘sweet potatoes.’

(9b) could also receive same interpretation as (9a), although the translation provided by Loos suggests a different structure, namely, a conjunction of DPs in which one of them is universally

<sup>3</sup>The connection between SR and coordination has been observation by previous research. Cf., for example Hale & Jeanne (1976), Munro (1980), Haiman (1983), Stirling (1993).

quantified. Let us assume that this is correct. We have not found cases like these outside of existential verbs, which suggests that they do not involve true argumental coordination. Thus, this kind of example is not a counterexample to the claim that coordination of DPs is not possible outside of adjoined or predicational contexts.

The last example, (9c), involves a comitative marker *bitan*. Comitatives show properties of coordination across languages, and as such, they have been argued to be instances of coordination (cf., for example, Munro (1980), Dyla (1988), Kornfilt (1990), Camacho (1996)). However, many have argued against the coordination analysis of comitatives (cf. Rigau (1989), McNally (1993), for example) because comitative conjunctions restrict the number of conjuncts to two, they impose a restriction on the interpretation -they force a collective reading (cf. McNally (1993), Camacho (2000))- and in many languages only subjects can be conjoined.<sup>4</sup> Whatever the true status of comitatives is, it is clear that comitative coordination does not have the same properties as regular coordination.

During our field work, some speakers suggested a few sentences that could be construed as productive coordinations of DPs. They involve use of *riʔbi* ‘also’, as illustrated in (10). Notice that this example involves the collective quantifier *rabiʔbi* ‘both’, which may suggest the structure is similar to that of (9a). Furthermore, the presence of *riʔbi* argues for an ellipsis analysis where two sentences are conjoined and the second conjunct has part of its inflectional projections deleted.

- (10) Jose -pan papa ta hawin mama riʔbi rabi bitʃa -kan -i -ki.  
 Jose -POSS father DECL his mother also both laugh -3 -TNS -ASSER  
 ‘Jose’s father and his mother also, both laughed’

### 3.2 Switch-Reference

Like other Pano languages, Capanahua has a large set of SR markers, which provide three types of information: first, whether a given argument of a clause is coreferent with an argument in an adjacent clause, second what the temporal sequence of the events is in the two clauses, and finally, in some cases, whether the verb in the second clause is transitive or not. In sentence (11a), from Loos (1999), for example, the object of the first clause is coreferential with the subject of the second and the first event precedes the second one, as marked by *-aʔbo*.<sup>5</sup> In the second sentence, there are three SR markers: *-aʃ*, *-ton* and *-ʃon*. The first one marks the coreferentiality between subjects of two intransitive verbs: that of *tʃaʔoʔ* ‘become soft’ and that of *mi-rakaʔt-ai* ‘fall on the earth’. It also indicates either that both events were simultaneous or that the event of becoming soft precedes that of falling on the earth. The second SR marker, *-ton* indicates coreference between the subject of a verb (transitive or intransitive) and the object of a transitive one, as well as event

<sup>4</sup>In cf. Camacho (2000) it is argued that the subject restrictions for Spanish derives from the necessarily collective interpretation. The claim is that the architecture of a sentence only allows truly collective interpretations outside the VP.

<sup>5</sup>We will gloss Switch-reference markers as SR with a subindex to indicate the various coreference relations. See table 1 for the complete SR paradigm in Capanahua.

simultaneity. Finally, the third marker, *-şon* indicates coreference between a subject (of a transitive or an intransitive verb) and the subject of an intransitive verb. Additionally, the event of the first clause can be simultaneous or precede that of the main clause. The SR paradigm is presented in table 1, adapted from Loos 1999.

- (11) a. *hati?ibi hato yo?i -wi ?onan -a?bo*  
 all them tell -IMPER know -SR<sub>f</sub>  
 ‘Tell all of them<sub>i</sub> so that they<sub>i</sub> will know’
- b. *hiwi ?ani başo kiyani bimi tʃa?o? -aş naman mi -raka?t -ai*  
 tree big baso tall fruit soft-become -SR<sub>a</sub> below earth.on -lie -TNS  
*-ton ska honon mira -şon pi -kin*  
 -SR<sub>c</sub> then peccary find -SR<sub>b</sub> eat -SR<sub>i</sub>  
 ‘The baso tree is huge, very tall. When the fruit<sub>i</sub> becomes soft and pro<sub>i</sub> falls to the ground, the peccary<sub>i</sub> finds it and pro<sub>i</sub> eats it’

TABLE 1 Switch-reference verbal suffixes in Capanahua

Suffix name	Suffix	Function of argument in:		Event in 1 in relation to event in 2
		Clause 1	Clause 2	
SR <sub>a</sub>	-aş	S same as	S	before or simultaneous
SR <sub>b</sub>	-şon	A/S same as	A	before or simultaneous
SR <sub>c</sub>	-ton	A/S same as	O	simultaneous
SR <sub>d</sub>	-a?	O/IO same as	A/S	before
SR <sub>e</sub>	-noşon	A/S same as	A/S	subsequent
SR <sub>f</sub>	-a?bo	A/S (must be plural) same as	O	subsequent
SR <sub>g</sub>	-ya	A/S different from	A/S	before or simultaneous
SR <sub>h</sub>	-non	A/S different from	A/S	before or simultaneous

### 3.3 SR and Subordination

One important question to be decided is whether SR reflects a coordinate or a subordinate relation between two clauses. Loos (1999): 237 suggests that SR involves subordination, with the SR markers attached to the subordinate verb. However, if we consider a sentence like (11b), this cannot mean that each SR clause is subordinated to a main clause. Clearly this is not the meaning. Rather, it means that each SR marker links to a clause immediately adjacent to it, but the second clause can bear additional SR marking or not, as schematically presented in (12: the verb in clause 1 (C1) has a SR marker *aş*, that links it to C2, which in turn has a SR marker *-ton*, that links it to C3, which links it to the main clause C4.

- (12) [C<sub>1</sub> When the fruit<sub>i</sub> becomes soft] [C<sub>2</sub> pro<sub>i</sub> falls to the ground] [C<sub>3</sub> the peccary<sub>i</sub> finds it]  
 [C<sub>4</sub>pro<sub>i</sub> eats it]

In order to understand the distribution of SR clauses, it is necessary to give some basic facts about clause-types in Capanahua. This distinguishes three types of clauses: main clauses, narrative clauses and SR clauses. Main clauses are marked for tense (present, future, past) and agreement (1<sup>st</sup>/2<sup>nd</sup> vs. 3<sup>rd</sup> person) morphology; for clause type: declarative ( $\emptyset$ ), interrogative (*-n*) or imperative (*-we*), and for evidentiality (*-ta*, *sta* and *-ki*, etc.).<sup>6</sup> An example of a main clause can be seen in (13a) where each of the morphemes in *-i?ki-n* encodes tense, person (pres, 3p) and clause type (interrogative) respectively; and in the first clause of (14a), where *ta?* is the evidential particle, and the morphemes *-?a-?a-ki* are past, 3<sup>rd</sup> person and declarative respectively.

Narrative and SR clauses, on the other hand, lack any tense, agreement or evidentiality. Narrative clauses have a single final morpheme on the verb (*-kin/(?)i*). *-kin* is used for transitive verbs, *(?)i* for intransitives. An example can be seen in the second clause of (14b). SR can only appear with a SR marking, as shown in (13b). The clause-type interpretation of narrative and SR clauses is done with respect to a main clause. In this sense, it seems that *-kin/(?)i* and the SR morphology copy the clause-type information of a main clause. In the case of narrative clauses, they also copy the tense information.<sup>7</sup> For example, both examples in (13) are part of a single utterance and the SR clause (13b) is interpreted as a question because the main clause is a question.

- (13) a. min yo?a    βitʃin -kan -i?ki        -n  
           You yucca steal -PL -PRES.3P -INTER  
           ‘Do they<sub>i</sub> steal some yucca from you?’
- b. miša        -ʃon  
           root.out -SR<sub>b</sub>  
           ‘Do they<sub>i</sub> root it out?’
- (14) a. [ʔia ta?    βitʃin -?a    -ʃ    -ki]    [miša    -ʃon]  
           me DECL steal -PAST -3P -FACT root.out -SR<sub>b</sub>  
           ‘(They<sub>i</sub>) stole it from me. They<sub>i</sub> rooted it out’
- b. [ʔoro        -ʃon]    [ʔian his-kin]  
           cultivate -SR<sub>b</sub> I see-NARR  
           ‘While I<sub>i</sub> was cultivating, I<sub>j</sub> saw them’

Typically, SR clauses must appear with either a main clause (as in (13), both of which for a single utterance), or with a narrative clause (as in (14b)). The possible word orders for sequences involving SR clauses is schematized in (15), where each of the SR clauses is optional.

- (15) (SR<sub>1</sub>) ... (SR<sub>n-1</sub>) Main/Narrative clause (SR<sub>n</sub>)

<sup>6</sup>The distribution of *-ta/-sta* and *-ki* is the following: *-ta/sta* are always clause-second, whereas *-ki* is clause-final. See Elías-Ulloa (2002). We have glossed *-ta* as DECL, following Loos, although it seems to be an evidentiality marker.

<sup>7</sup>Narrative clauses can appear independently of a main clause, in which case they are interpreted as declaratives, and their tense is contextually determined.

The fact that SR clauses lack inflectional features reinforces the idea that they are embedded clauses. In particular, some of their properties seem similar to control infinitives: event-sequencing, argument coreference and lack of tense and agreement. However, several facts militate against analyzing SR as control. First, as shown above, some of these properties (event-sequencing, argument coreference) can be determined by other SR clauses, unlike with controlled infinitives, where only a single infinitive can be subordinated. Second, the information about the valency of the main clause verb seems to be hosted in the SR morpheme, which appears in the SR clause, as shown in (14a). Here, *şon* is only possible if the main clause (headed by *βitʃin-ʔa-ş-ki* ‘stole’) is transitive.

Finally, given that Capanahua tends to be head final, one would expect SR clauses to always precede the main or the narrative clause, however, it is also possible to have them follow, as (15) shows. Although it is possible that the SR clauses have been moved from a base order in which they are embedded, this is not typical of subordinate contexts.

All of these arguments suggest that main and narrative clauses do not select SR-clauses, but rather, SR relates two clauses (a SR-clause and a main or a narrative clause) whose temporal, agreement, valency and event-sequence properties are determined by the structural configuration in which they stand with respect to each other. In essence, we will argue that the relationship between SR and main/narrative clauses is one of clause union, which is exactly what some types of coordination involve in other languages. Before making this intuition more explicit, we will first determine the categorial status of each of the clause types found in Capanahua.

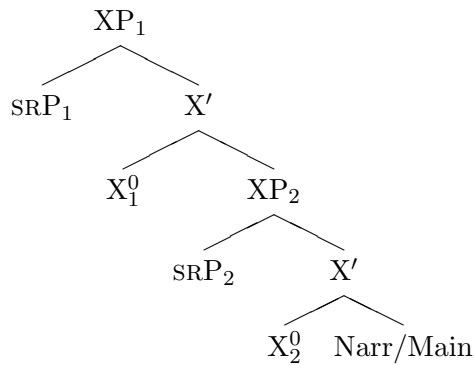
### 3.3.1 The Categorial Status of SR, Narrative and Main Clauses

From the distinction described above between main, narrative and SR clauses, we can draw the following partition: main clauses have a full, independent inflectional system, SR and narrative clauses do not. We take this to mean that main clauses have a full IP system, whereas narratives and SR clauses do not. The exact nature of the inflectional system in narratives and SR clauses remains a topic for further research.

## 3.4 The Analysis of SR

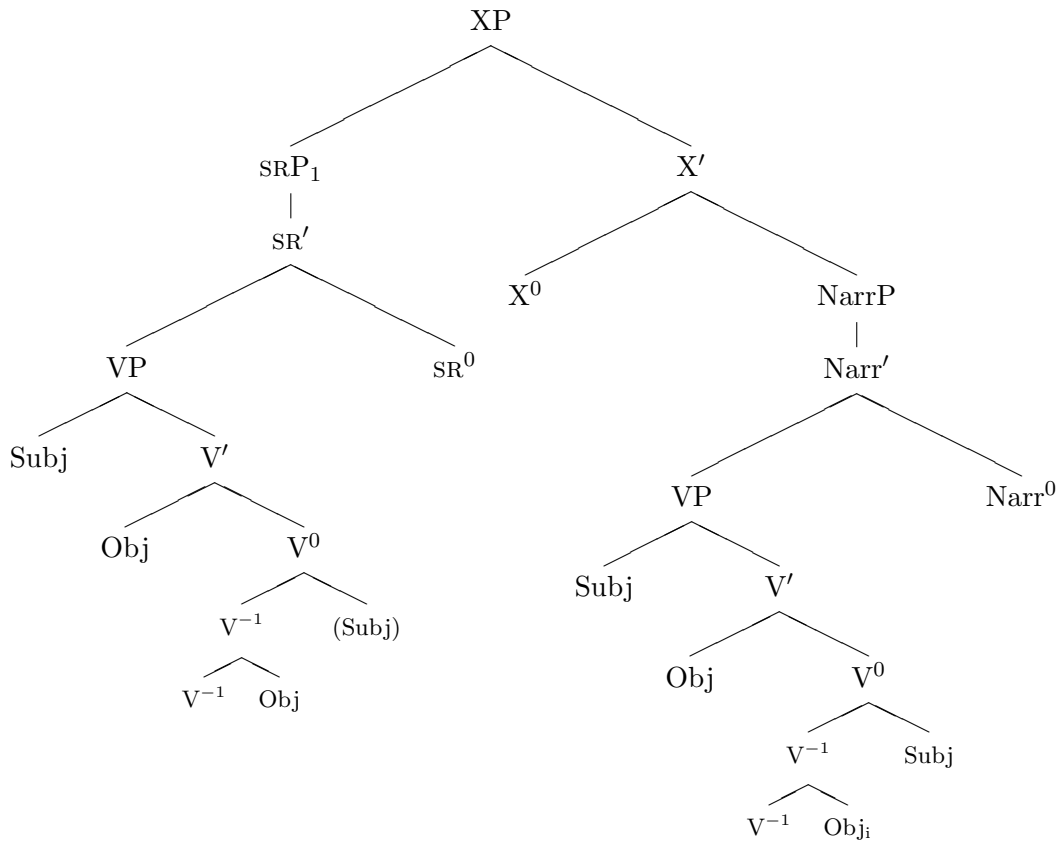
We would like to argue that sentences involving SR marking have the structure presented in (16). The structure is headed by an XP phrase (see below), which is null. Each SR clause is in the specifier of the corresponding XP projection. The underlying idea is that SR-clauses are joined by a projection which can be thought of as a conjunction projection (see also section 3.5), where each clause stands in a specifier or a complement relation to it. Argumental coreference, event sequencing and valency concord will be achieved by a combination of head movement and specifier-head agreement, as described below.

(16)



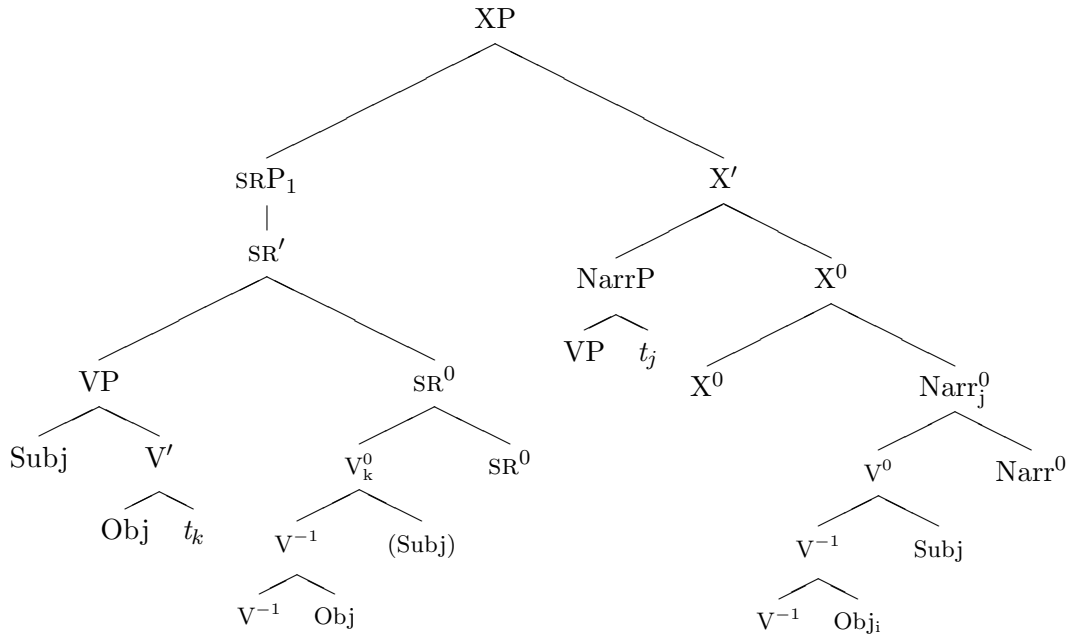
Since SR morphemes share the argument structure, and event information about two clauses, this can be formalized by representing the information conveyed by SR in each of the clauses joined. A sample representation appears in (17). Here, the SR-information will be represented as sub-zero structure on the verb, whereas the regular argument information is represented in the typical structural fashion (sister of  $V'$ , Spec of VP, or however else one chooses to represent the base position of arguments). The only difference between the representation of SR information in SRP and in NarrP is that one of the arguments in SRP is missing (the one in parenthesis). The information about this missing argument will be filled by the relevant argument in the NarrP (marked with an index). Thus, for the SR marker *-ton*, which relates subjects in the SR clause with objects in the main/narrative clause, the representation would be (17).

(17)



The information present at the  $SR^0$  will percolate to  $SRP$ . The head of  $Narr^0$ , in turn, will raise to  $X^0$ , and  $X^0$  (carrying the information from  $Narr^0$ ) will undergo spec-head agreement with  $SRP$  in its specifier, insuring coreference. The additional assumption that both  $SR^0$  and  $Narr^0$  carry the event information insures that event sequencing can be computed. The resulting representation is given in (18).

(18)



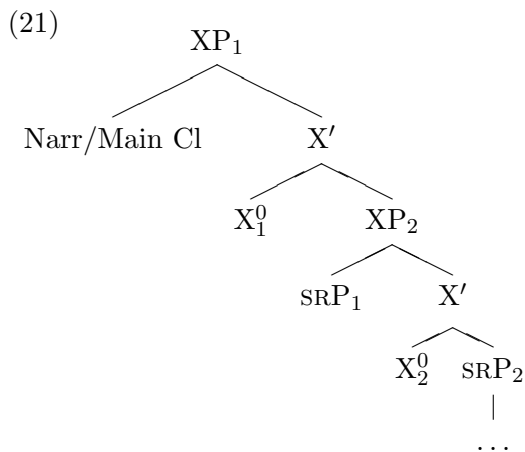
One alternative representation of the same basic underlying idea would be to claim that the argument structure is represented through features, hence all the sub-zero information is a set of features inserted with  $SR^0$  and  $Narr^0$  respectively. This second idea comes very close to arguing that SR really involves case marking that only surfaces whenever two clauses are joined. Preliminary evidence for the idea that SR involves case marking comes from examples like (19), from Loos 1999: 240. With locative adverbs, if the adverb modifies the subject, it must agree in valency with the verb: if the verb is intransitive, as in (19a), the adverb is marked with  $a_s$ , if the verb is transitive, the adverb is marked with  $-s\ o n$ , as in (19b); finally if the adverb modifies the object, as in (19c), there is no valency concord. The interesting fact about this paradigm, is that the valency concord suffixes are exactly the same as the  $SR_a$  and  $b$  morphemes, which relate intransitive subjects and A/S – A respectively. However, the parallelism between case and SR does not carry over to the other morphemes straightforwardly, so further research on this matter is required.

- (19) a. hanoʔ-a<sub>s</sub>            haw-i  
           there-LOC(INTR) come-NARR  
           ‘He came from there.’
- b. hano<sub>s</sub>o<sub>n</sub>            his-kin  
           there-LOC(TR) see-NARR  
           ‘He saw it from there.’
- c. hano    ʔano    his-kin  
           there    majas    see-NARR  
           ‘He saw a majas (rodent) there.’

- (20) tsaʔo-xon    ska    his-kin  
       sit-SR<sub>b</sub>    then    see-NARR  
       ‘S/he sat and then saw it.’

### 3.4.1 Alternative Word Orders

As it stands, the structures proposed in (16)-(18) represent the word order [SR<sub>1</sub> . . . SR<sub>n</sub> Narrative/main clause]. However, it is also possible to have [SR<sub>1</sub> Narrative/main clause SR<sub>n</sub>]. Given the analogy we are pursuing with coordination, let us explore the possibility that the order of the “conjuncts” can be altered, as in coordination in other languages. Hence the narrative can be generated in the complement position of XP, as we had originally proposed in (16), or in the the spec of XP, yielding the order [SR<sub>1</sub> Narrative/main clause], as in (21), or [SR<sub>1</sub> Narrative/main clause SR<sub>n</sub>], if the main clause is in the intermediate specifier.



## 3.5 Coordination and SR

In the beginning of the paper, we proposed that coordination and SR are underlyingly the same phenomenon. Our initial argument stemmed from the observation that certain languages that showed restricted overt coordination also showed complex SR systems. The analysis presented in the preceding sections sets the stage to explain the underlying similarity. In the structures we have proposed, XP is a projection where information from the inflectional paradigms of two clauses converges and matches. This information specifically relates to event sequencing, argument structure and valency (or case, if our suggestion is right). As we will see below, this is precisely the role the conjunction projection plays in languages with overt conjunctions. Thus, it can be argued that XP is a conjunction phrase.

In languages with productive overt coordination, like English or Spanish, we find sequences like (22), where the meaning of *and* is to join two propositions -namely two events-. Clearly, however, those two events are interpreted sequentially, and although the actual order of events is not imposed by coordination, it is certainly a byproduct of the structure of coordination. Finally, crossclausal coreference is also possible, as shown by two things: the use of *them* in the second clause, and the obligatory coreference between the subject of the first clause and the subject of the second clause in (22b).<sup>8</sup>

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<sup>8</sup>One could argue that the second clause of (22b) lacks a subject because it coordination takes place below IP, however, if one assumes the VP-internal hypothesis, this claim is hard to maintain (cf. Burton & Grimshaw (1992)).

- (22) a. Mary bought some cakes and Jill brought them home.  
 b. Jill bought some cakes and brought them home.

For these languages, several researchers (Munn (1992), Johannessen (1993), Johannessen (1998), Arnaiz & Camacho (1999), among others), have argued that coordination involves functional projections in which each conjunct is in a specifier or a complement position, and the conjunction projection serves as the site where the features of each conjunct match. If these analysis are correct, then the parallelism between coordination and SR becomes strong.

The main differences between English and Capanahua, from this point of view, are two: coordination in English does not impose valency concord in the same sense it does in Capanahua, and coordination in English can join constituents that are not clausal (i.e DP constituents, for example).<sup>9</sup>

## 4 Conclusions

In this paper, we have argued that SR and coordination are different manifestations of the same phenomenon: the union of clausal projections. In both cases, the features of each conjunct are matched in a functional projection (XP). Specifically, for SR in Capanahua, we have argued that arguments coreference, event-sequencing and valency concord are the result of a combination of Spec-head agreement and head movement. One of the clauses in the specifier of the conjoining projection (XP) will match its features against the head of that projection, whose own features will be determined by head movement of the inflectional verbal features of the second clause.

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<sup>9</sup>For theories of coordination that claim that all conjunction is clausal, the second difference is less problematic than for those that claim that *and* is systematically ambiguous between a clausal reading and a propositional reading. In these theories, the existence of Capanahua becomes mysterious. Cf. Schein (1992), Camacho (1997).

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