

Yaqui complementation, an example of a syntax-semantic mismatch

Lilián Guerrero
Universidad de Sonora

Introduction

This paper examines the selection of complement types in Yaqui,¹ specifically those constructions in which the linked unit is a semantic argument of the matrix predicate but does not behave syntactically like a core argument. In this Uto-Aztecan language, there are four grammatical complement types. Some but not all complement-taking predicates may take alternative complement forms, and most of those that do take alternative coding fall into the so-called control and raising predicates. Whereas one of the selected forms correlates with the notion of structural subordination, e.g., the nominalized and syntactic structure types, the other alternative forms do not, e.g., the morphological and predicative structure types. The last two are examples of a mismatch between syntax and semantics: the content of the linked unit is a semantic argument of the matrix predicate, but in the syntax it is not treated as a core argument.

The study developed here involves neither a subcategorization list, nor control and raising rules mainly determined by syntactic terms. Rather, it follows the idea that an account of control and raising constructions involves primarily semantic factors, in particular the lexical semantics of the matrix predicate (cf. Sag & Pollard 1991; Langacker 1995; Jackendoff & Culicover 2003). The analysis is formulated in terms of juncture-nexus relations as proposed by Role and Reference Grammar (Van Valin 1993, 2005; Van Valin & LaPolla 1997). In what follows, I briefly introduce the approach to clausal-internal relational structure within this emerging theory and then I discuss the four complement types in Yaqui.

Role and Reference Grammar

Role and Reference Grammar [henceforth RRG] proposes three main components for the study of clause union: the theory of juncture, the theory of nexus and the theory of semantic relations. The theory of juncture deals with the units which make up complex sentences: nucleus, core and clause. The theory of nexus concerns the syntactic relationship between the units –subordination, coordination, and cosubordination, which are distinguished in terms of dependency. In subordination, there is a structural dependency, i.e., the linked unit functions either as a core argument, as in complementation, or as a modifier.

¹ Yaqui is a language spoken in Sonora, Mexico by approximately 15,000 speakers, and in Arizona by some 6,000. The data used in this paper is the result of my fieldwork based on the Sonora dialect of Yaqui, and the analysis stems from my PhD dissertation. Many thanks to Robert D. Van Valin, Jr. for his invaluable comments and directions on the analysis. Any errors are mine.

In coordination, the two units are ‘added together in a sequence’ in a relationship of equivalence and independence. Cosubordination shows properties of both: there are two units of equivalent size joined together, as in coordination, but one unit depends on the other, as in subordination. The dependency is in terms of tense-aspect-mood (TAM) operators: in cosubordination, the linked verb must be dependent upon the matrix verb for the expression of one or more operators at the level of juncture, whereas in coordination, the two units can, but do not need be, independently specified for the relevant operators. These syntactic combinations are organized into the Syntactic Relation Hierarchy, in which they are ranked in terms of syntactic tightness. The theory of interclausal semantic relations establishes that the semantic notions themselves can be ranked in terms of degree of semantic cohesion among the units within the Semantic Relation Hierarchy. Both representations are juxtaposed to create the Interclausal Relations Hierarchy, as illustrated in Figure 1.

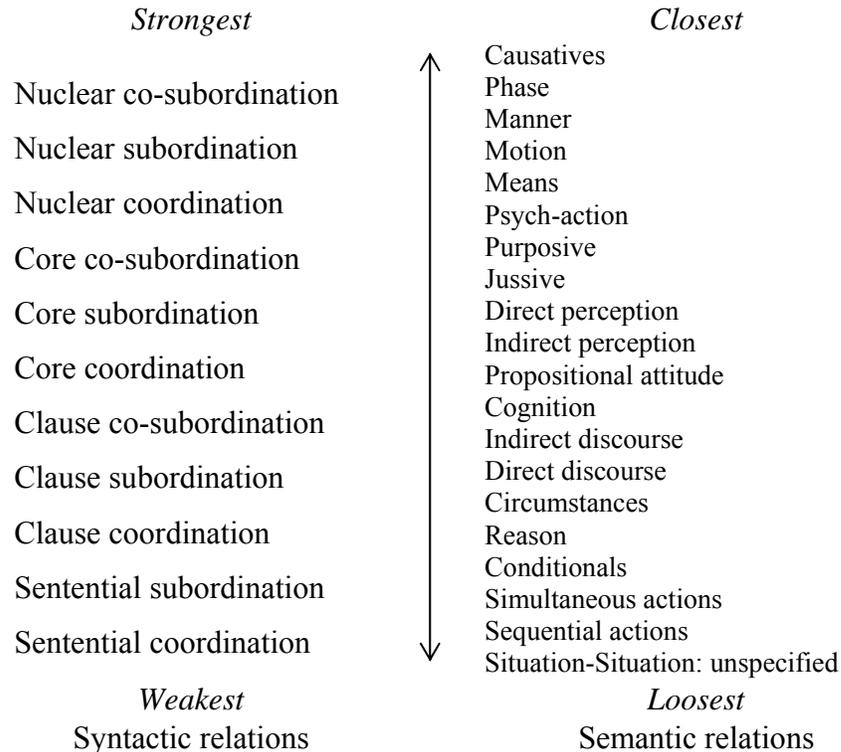


Figure 1: Interclausal Relation Hierarchy (VV&LP 1997; VV 2005).

Following the form-function iconicity principle, the basic principle governing the syntactic-semantic correlation is: the closer the events denoted by a predicate and its complement are, the more syntactically integrated the predicate-complement construction will be. RRG also proposes a rigorous theory of linking: the tightest syntactic linkage realizing a particular semantic relation should be tighter than, or as tight as, the tightest syntactic linkage realizing a looser semantic relation.

Complement types in Yaqui

From a purely descriptive standpoint, Yaqui complementation can be achieved via four complement types. The syntactic type is an instance of the traditional notion of clausal subordination. In the example in (1), the complement unit is marked by *-‘u*; the two cores may have correferential subjects but do not need to (in this example, they don’t); the linked unit is fully marked for operators, and its position with respect to the main clause is variable, i.e., it may appear embedded in the main clause or extra-posed to the right.²

- (1) Aurelia-Ø [enchi laaben-ta pona-kan-‘u] jikka-k.
Aurelia-NOM 2SG:ACC violin-ACC play-PASTC-CLM hear-PRFV
‘Aurelia heard that you were playing the violin.’

Another instance of subordination consists of the nominalized complement. In (2), the complement is marked by *-m* followed by the accusative suffix *-ta*; it occurs only with non-correferential subjects; the linked verb can be marked by the aspectual perfective suffix or remain unmarked; and it appears embedded in the main clause. Because the linked verb cannot take neither tense nor illocutionary force markers, the linked unit is a core, rather than a clause, hence core subordination.

- (2) Aurelia-Ø [enchi laaben-ta pona-m-ta] jikka-k.
Aurelia-NOM 2SG:ACC violin-ACC play-CLM-ACC hear-PRFV
‘Aurelia heard you play the violin.’

Both complement types are clear examples of subordination: the linked unit, as a whole, is both a semantic and a syntactic argument of the matrix predicate. Subordinate clausal and core junctures in Yaqui must express all its core arguments, it is always marked by a clause linkage marker, and the dependent subject is accusative. These morpho-syntactic properties prevent the linked unit from appearing as an independent clause.

In the predicative structure in (3), the linked unit is also a core. The complement is marked by *-kai*; the two predicates must share the subject, meaning that the linked unit is missing a syntactic core argument (its subject); it must be unmarked by operators, and its position is relatively fixed, following the matrix. Although the content of the complement is a semantic argument of the matrix predicate, the dependency relation is not in terms of structure as shown above, but in terms of operators: the linked unit depends on the matrix predicate for TAM information and

² Abbreviations: ACC=Accusative, CLM=Clause linkage marker, DESID=Desiderative, DIR=Directional, EXPE=Expected, LOC=Locative, NEG=Negation, NOM=Nominative, PASS=Passive, PASTC=Past continuative, PRFV= Perfective, PL=Plural, PRES=Present, RED= Reduplication, SG= Singular.

the coding of its subject participant. Hence, the matrix core and its complement marked by *-kai* establish a core cosubordinated juncture-nexus relation.

- (3) Ne teenku-k [loteria-ta yo'o-bae-kai]
 1SG:NOM dream-PRFV lottery-ACC win-DESID-CLM
 'I dreamed of wining the lottery.'

And finally, in the morphological structure in (4), the matrix core and the linked unit are joined together, in most cases without a complementizer; the two predicates must share an argument, indicating that there is a missing argument in the linked unit; the linked verb may be unmarked or marked by aspectual operators, but not for tense.

- (4) a. U-me o'ow-im kuete-m pejta-yaate-k.
 the-PL man-PL firework-PL burst-stop-PRFV
 'The men ceased setting off the fireworks.'
- b. Goyo-Ø Tibu-ta wakas-ta etbwa-k-tia-n.
 Goyo-NOM Tibu-ACC cow-ACC steal-PRFV-say-PASTC
 'Goyo said Tibu has stolen the cow.'

The morphological structure is the most intriguing complement strategy in the language. On the one hand, it shows the highest degree of syntactic integration, is very productive, and expresses a wide range of semantic notions such as causation, desires, perception, beliefs, and even indirect discourse. On the other hand, most studies of complementation tend to exclude this type, since it is not a syntactic but a morphologically derived construction (cf. Cristofaro 2003). It is true that, although it constitutes a semantic argument, the content of the complement does not act as a syntactic argument of the matrix core; this discards subordination. In fact, there is an argument of the embedded unit that acts as a syntactic argument of the matrix predicate. In terms of juncture-nexus linkages, the morphological type consists of either core coordination or core cosubordination, depending on the operator marking on the linked verb.

Yaqui-specific relations on complementation are compatible but not identical to the cross-linguistic predictions of the Interclausal Relations Hierarchy. As predicted by the iconicity principle, the tightest syntactic linkages, being nuclear or core cosubordination, are the exclusive representation for the closest semantic relations, i.e., direct causation, phase and certain psych-action predicates. The less tight syntactic linkages, being those of sentential and clausal subordination, encode the loosest semantic relations, i.e., cognition and direct discourse. However, predicates at the middle portion of the hierarchy may be realized by alternative syntactic forms, one being tighter than the other. This alternation is indicative of a marked shift from syntactic to morphological structures: the looser the semantic relation, the more marked the morphological structure should be.

Interestingly enough, these marked constructions involve the so-called ‘control’ and ‘raising’ predicates, e.g. *order*, *promise*, *expect*, *believe*, and *think*.

Control and raising predicates

Control and ‘raising’ predicates have been the touchstone of many syntactic theories, especially those that do not consider movement. In purely syntactic terms, in a control construction, there is an obligatory missing argument in the embedded unit, which is bound to a controlling antecedent (cf. Rosenbaum 1967; Chomsky 1981; Bresnan 1982; Horstein 1999; Culicover and Jackendoff 2001). Briefly, control predicates select infinitival and gerundive complements with a covert syntactic subject PRO which receives its θ -role by ordinary structural principles. In turn, PRO is an anaphoric element whose antecedent, located by means of the binding theory, is the “controller” of PRO. Horstein (1999) offers a minimalist theory by reducing certain cases to movement. Thus, predicates like *try* and *persuade* in (5a-b) license the movement of the embedded subject to object position in the main clause allowing it to receive a second θ -role. This approach allows the unification of control and raising predicates like *seem* and *believe* (5c-d), the difference being that raising predicates do not assign a second θ -role to the moved element.

- (5) a. David tried to play the saxophone
b. Julio persuaded Dena to kiss him,
b'. Julio persuaded Dena_i that she_i should kiss him
c. Ruth seems to enjoy the party
c'. It seems that Ruth enjoys the party
d. Herminda believes Mary to be at home
d'. Herminda believes that Mary is at home
e. She does not promise Rosita to stay

Among the syntactic explanations that have been proposed to determine the controller of the missing argument is the ‘Minimal Distance Principle’ (Rosenbaum 1967): the NP closest to the infinitival verb is the controller. In a tree structure, when there is no a direct object, an infinitival complement is closest to the subject, hence the subject *David* in (5a) is the controller; when there is a direct object, the infinitive is closer to it, hence the direct object *Dena* in (5b) is the controller. Most syntactically based explanations are forced to categorize *promise* as a marked case of control with no principled solution; in (5e), *Rosita* serves as the object of the matrix predicate but it is not the controller of the infinitive, the controller is *she*.

Although some of these syntactic approaches generally acknowledge that semantics plays some role, they do not specify which role. Beginning with Jackendoff (1972) and continuing through Sag & Pollard (1991), Pollard & Sag (1994), Langacker (1995), Foley & Van Valin (1984), Van Valin & LaPolla (1997), Culicover & Jackendoff (2001, 2003), emphasis is given to the importance of semantic factors, especially the lexical semantics of the matrix predicate that selects such types of complements.

RRG provides a semantically-based analysis for control. As shown in (6), the choice of the controller is tied to the semantics of the matrix core, and it applies to predicates which are semantically transitive, i.e. they select actor and undergoer; if the matrix verb is semantically intransitive, then the single argument will be the controller by default. Thus, in constructions like *David tried to play the saxophone* (5a), the controller is the actor of the matrix core. In a clause like *Julio persuaded Dena to kiss him* (5b), the controller is the undergoer.

(6) Theory of control (Van Valin & LaPolla 1997: 544)

1. Causative and jussive verbs have undergoer control.
2. All other semantically transitive verbs have actor control.

As in English, most predicates in Yaqui allowing a *that*-clause and a controlled construction fall into a delimited number of semantic classes. Let's first examine undergoer control including force-dynamic predicates of causing, forcing and preventing. In Yaqui, direct causation is exclusively expressed by core cosubordination (7a); the jussive *sawe* 'to order' allows alternative forms: core coordination (7b) and clausal subordination (7c). For non-subordinate structures (7a-b), there is an argument playing two semantic roles which is expressed only once: *Goyo* is the undergoer of the matrix predicate, and the actor of the caused event. These examples are instances of unique control: the undergoer of the matrix core *Goyota* is the controller of the missing syntactic argument in the linked core; in the alternative syntactic form (7c), the two cores show a coreferential NP. Evidence that *Goyo* is the undergoer of the matrix core comes from passivization (7b'); when the matrix predicate is passivized, the agent is omitted and the shared argument serves as the passive subject, hence it is marked nominative. Other members of this class allowing alternative forms are *nunu* 'to invite' and *su'utoja* 'to allow'; when expressing an order or advice, *tejwa* 'to tell' takes only a subordinate clause.

(7) a. Core cosubordination

Ne	Goyo-ta	teopo-ta	tu'ute-tua-k.
1SG:NOM	Goyo-ACC	church-ACC	clean-cause-PRFV
'I made Goyo clean the church.'			

b. Core coordination

- Peo-Ø Goyo-ta teopo-ta tu'ute-ne-sae-k.
 Peo-NOM Goyo-ACC church-ACC clean-EXPE-order-PRFV
 'Pedro ordered Goyo to clean the church.'
- b'. Goyo-Ø teopo-ta tu'ute-ne-sae-k.
 Goyo-NOM church-ACC clean-EXPE-order-PRFV
 'Goyo was ordered to clean the church.'
- c. Clausal subordination
 Peo-Ø Goyo-ta sawe-k [a_i
 Peo-NOM Goyo-ACC order-PRFV 3SG:ACC
- teopo-ta tu'ute-ne-'u]
 church-ACC clean-EXPE-CLM
 'I made Goyo clean the church.'

It has been said that this class does not permit omission of the object (cf. Bach 1979). That is, undergoer control must have controllers in the immediately dominating clause. Yaqui seems to provide a counterexample to this generalization. Although the exact interpretation of *-tebo* below is far from clear, it implies some sort of 'polite, generic request'. In (8a), it is ambiguous as to whether the actor *Peo* directly addresses the causee *Goyo* or whether he is giving orders to an intermediate participant to induce the caused action. In (8b), there is no addressee at all. When the control predicate codes an order and the linkage is non-subordinated, the controller always turns out to be the undergoer, even if determined by pragmatic factors.

- (8) a. Core cosubordination
 Peo-Ø Goyo-ta ye'e-tebo-Ø.
 Pedro-NOM Goyo-ACC dance-order-PRES
 'Pedro gives orders (for) Goyo to dance.'
- b. Peo-Ø pueta-ta ya'a-tebo-k.
 Pedro-NOM door-ACC make-order-PRFV
 'Pedro gave orders to make a door.'

RRG does not specify which predicates fall into the actor control predicates but, following Pollard & Sag (1994), Sag & Pollard (1991), and Jackendoff & Culicover (2003), we may include such predicates coding intention, desires, promise, and expectation. The non-subordinate combinations below are examples of actor control. The example in (9a) shows the predicate *-bae* 'to want to' and (9b) the predicate *-roka* 'to promise'. In these examples, the experiencer acts as the actor of the matrix predicate, whereas the undergoer is the content of the complement, i.e., the thing wanted or promised. The actor is the controller of the missing syntactic argument of the linked unit. As in many other languages, actor

control in Yaqui avoids passivization, i.e. Visser's generalization. This explains the ungrammaticality of (b').

(9) a. Nuclear cosubordination

Ne kaa yi'i-bae-k.
 1SG:NOM NEG dance-DESID-PRFV
 'I didn't want to dance.'

b. Core cosubordination

Empo et-po ania-roka-n.
 2SG:NOM sown field-LOC help-promise-PASTC
 'You promised to help in the sown field.'

b'. * et-po ania-roka-wa-n.
 sown field-LOC help-promise-PASS-PASTC
 '(Someone) promised to help in the sown field.'

Although structurally different, the clause in (10a) involving the predicate *bo'obicha* 'expect' is also instances of actor control. The complement unit is missing syntactic argument which is the same as the actor of the matrix core, and the linked verb must be unmarked by operators. In contrast to the predicates coding intention and promising, verbs referring to expectations may take a non-controlled complement involving another participant, as in (10b). Regardless of the subordinate complement type, that combination allows the matrix core to be passivized, whereas the non-subordinate linkage prohibits it.

(10) a. Core cosubordination

Goyo-Ø bo'obicha-Ø [pajko-po ye'e-bae-kai].
 Goyo-NOM expect-PRES party-LOC dance-DESID-CLM
 'Goyo expects to dance at the party.'

a'. *Bo'obicha-wa-Ø [pajko-po ye'e-bae-kai].
 expect-PASS-PRES party-LOC dance-DESID-CLM
 '(Someone) expects to dance at the party.'

b. Core subordination

Ne bo'obicha-Ø [enchi yi'i-ne-'u].
 1SG:NOM expect-PRES 2SG:ACC dance-EXPE-CLM
 'I expect that you would dance.'

b'. Bo'obicha-wa-Ø [enchi yi'i-ne-'u].
 expect-PASS-PRES 2SG:ACC dance-EXPE-CLM
 'It is expected that you would dance.'

One more example is illustrated in (11) with the verb *teenku* ‘to dream, imagine’. When encoding the mental disposition on the part of the actor toward a state of affairs involving herself, the construction is represented as core cosubordination. Thus, the actor is assigned to the intender participant, and the undergoer to the desired, expected, and promised event. When encoding a mental state involving another participant, the alternative form is a subordinate construction. Any other combination is ruled out. The point is that the actor of the event coded in the complement is necessarily bound to the intender participant.

(11) a. Core cosubordination

Lupe-Ø teenku-k [Peo-ta kuna-kai].
 Lupe-NOM dream-PRFV Peo-ACC marry-CLM
 ‘Lupe dreamed of (herself) marrying Pedro.’

b. Core subordination

Nepo [Peo-ta enchi kuna-ka-m-ta] teenku-k.
 1SG:NOM Peo-ACC 2SG:ACC marry-PRFV-CLM-ACC dream-PRFV
 ‘I dreamed of Pedro marrying you!’

Taking into consideration the word order of Yaqui, the Minimal Distance Principle would hardly account for the examples discussed so far. In causative constructions in (7), the controller happens to be in second position, i.e. the accusative NP following the nominative actor; in (8-9), the controller is the nominative NP, the first argument in the clause. In fact, this syntactic-based distribution would predict the wrong analysis in (12). *Joanta* is not the controller of *jinu* ‘to buy’ in (12a); neither is *Lupeta* the controller of *kuna* ‘get married’ in (12b); in both cases, the controller is the nominative NPs *Goyo* and *Manuel*.

(12) a. Core cosubordination

Goyo-Ø Joan-ta kaba’i-ta jinu-roka-n.
 Goyo-NOM Joan-ACC horse-ACC buy-promise-PASTC
 ‘Goyo promised Juan to buy a horse.’

b. Core cosubordination

Manuel-Ø bo’obicha-Ø [Lupe-ta kuna-bae-kai]
 Manuel-NOM expect-PRES Lupe-LOC marry-DESID-CLM
 ‘Manuel expects to marry Lupe.’

In terms of RRG representation, because there is an obligatorily shared semantic argument in control constructions, one of the arguments in the embedded logical structure, the pivot, is not filled by lexical material but is co-indexed with the controller in the matrix logical structure. In (13a), the missing argument *y* in the embedded unit is co-indexed with *Goyo*, the second position of the predicate **order**; hence, it must be interpreted as being the same as the undergoer. Since

Goyo and its co-indexed pivot occupy two argument positions in the LS, it is assigned two semantic roles: the undergoer of **order'** and the actor of **clean'**. In (13b), the missing argument *x* is co-indexed to *Manuel*, the first position of the predicate **expect'**; because *Manuel* and its pivot occupy exactly the same argument position in the LS, it is interpreted as being only the actor.³

- (13) Lexical representations for
- a. Undergoer control in (7b):
[do' (Peo, [order' (Peo, Goyo_i))] CAUSE [do' (y_i, [clean' (y_i, teopo)])]
 - b. Actor control in (12b):
do' (Manuel_i, [expect' (x_i, [marry' (x_i, Lupe)])]

Although structurally similar, raising constructions behave differently in semantic terms. The fact that the subject of the finite *that*-clause *Herminda believes that Mary is at home* in (5d') appears as a core argument in the matrix predicate in the alternative form *Herminda believes Mary to be at home*, was traditionally explained in Government and Binding theory (cf. Chomsky 1981b, 1986a, b) in terms of movement: *Mary* originates in the embedded clause but moves to the direct object position of the matrix. Later, it was proposed that *Mary* is the embedded subject but receives exceptional case marking by the matrix predicate (Postal 1974); there is considerable agreement on the last treatment in other generative theories. In Yaqui, *-maachia* 'believe' in (14a) has been grammaticalized to such an extent that it only appears as a core co-subordinated linkage, the predicate *'ea* 'think' may be represented as core coordination in (14b), core subordination in (14c), as well as clausal subordination in (14d).

- (14) a. Core cosubordination
 Aurelia-Ø Peo-ta kaba'i-ta nenka-maachia-Ø.
 Aurelia-NOM Pedro-ACC horse-ACC sell-believe-PRES
 'Aurelia believes Pedro to be selling a horse.'
- b. Core coordination
 Aurelia-Ø Peo-ta kaba'i-ta nenka-ka-t-'ea-n.
 Aurelia-NOM Pedro-ACC horse-ACC sell-PRFV-CLM-think-PASTC
 'Aurelia thought Pedro to have sold the horse.'
- c. Core subordination

³ Because of the constraints on space, I won't get into the details of the RRG analysis. Briefly, in order to capture the fact that there is a syntactic argument slot missing in the linked unit, the theory places a universally-valid qualification to the syntactic template selection principle, namely, the occurrence of a core as the linked unit in a non-subordinate core juncture reduces the number of core slots by 1. This principle does not specify which syntactic slot is missing, since that is a construction-specific feature (For details, see Van Valin & LaPolla 1997: 540-60).

Aurelia-Ø [Peo-ta kaba'i-ta nenka-ka-benasia] 'ea-Ø.
 Aurelia-NOM Peo-ACC horse-ACC sell-PRFV-CLM think-PRES
 'Aurelia has the feeling that Pedro has sold the horse.'

d. Clausal subordination

Aurelia-Ø nuen 'ea-n [Peo-ta
 Aurelia-NOM thus think-PASTC Peo-ACC

kaba'i-ta nenka-ne-'u]
 horse-ACC sell-EXPE-CLM
 'Aurelia thought that Pedro will sell the horse.'

For the subordinate combinations, the complement as a whole is both a syntactic and a semantic argument of the matrix predicate. When passivized (15c-d), the embedded subject must remain accusative in order to be grammatical, and the sentence is understood as impersonal. For the non-subordinated combinations, the complement does not behave as a syntactic argument. Instead, the two predicates share a syntactic argument since the embedded subject serves as a syntactic argument of the matrix predicate for the purpose of passive. As shown in (15a-b), *Peo* functions as the passive subject and hence is marked nominative.

(15) a. Peo-Ø kaba'i-ta nenka-maachia-wa-Ø.
 Pedro-NOM horse-ACC sell-believe-PASS-RES
 'Pedro is believed to be selling the horse.'

b. Peo-Ø kaba'i-ta nenka-ka-t-'ee-wa-n.
 Pedro-NOM horse-ACC sell-PRFV-CLM-think-PASS-PASTC
 'Pedro is thought to have sold the horse.'

c. [Peo-ta kaba'i-ta nenka-ka-benasia] 'ee-wa-Ø.
 Peo-ACC horse-ACC sell-PRFV-CLM think-PASS-PRES
 '(Someone) has the feeling that Pedro has sold the horse.'

d. Nuen 'ee-wan [Peo-ta kaba'i-ta nenka-ne-'u]
 thus think-PASS-PASTC Peo-ACC horse-ACC sell-EXPE-CLM
 'It is thought that Pedro will sell the horse.'

Although the morphological structure coding belief and thinking resembles the control construction, in the sense that it is the shared argument that acts as the passive subject, there is a crucial difference between the two: in the logical structure of the clause 'Aurelia thought that Pedro has sold the horse' in (16), *Peo* is not a semantic argument of *think* but rather is the actor of *sell* only. The 'raised', or more properly, the syntactic shared argument bears a grammatical relation in the main clause, but it preserves its semantic relation in the embedded unit; at the same time, the linked unit is a semantic argument of the matrix

predicate, but not a syntactic argument because it is fulfilled by the shared argument. This is captured in the logical representation below where the first argument position of **think'** is occupied by the experiencer *Aurelia*, and the second position by the content of thinking, e.g., what Aurelia thinks is that 'Pedro sold a horse'.

(16) Logical representation for 'think'

think' (Aurelia, [**do'**(Peo, Ø)] CAUSE [BECOME NOT **have'** (Peo, kaba'i)])

In control constructions the semantically shared argument is both the embedded actor and the matrix undergoer, but here there is no change in the semantic role of *Peo*: it is the actor of the embedded core, not the undergoer of the matrix predicate. *Believe* and *think* are not the only predicates in Yaqui showing this syntactic pattern. Perception and even indirect discourse predicates also allow alternative syntactic forms. What these predicates seem to have in common is that they all express different degrees of experiences generated in the speaker's mind. More precisely, these notions were not originally generated in the participant's mind (as it is for intentions), but it reflects a concept formed in her mind by internal/physical/direct contact with another entity and/or event, e.g., perception, or some sort of degree of commitment about the proposition, e.g., *believe*, *think*.

Final remarks

The aim of this paper was to extend the analysis of complement selection in Yaqui to such cases where the complement unit is a semantic but not a syntactic argument of the matrix predicate. This particular case of syntax-semantic mismatch is not totally arbitrary since it is found in a particular set of complement-taking predicates. In syntactic terms, they consist of non-subordinate linkages sharing a core argument: core coordination and core cosubordination juncture-nexus relations. In semantic terms, they can be grouped as follows. The first two share a semantic argument. The undergoer control type involves a limited number of basic predicates referring to direct and verbal causation. The actor control type includes predicates coding intention, volition, promising and expectation. Although structurally similar, the 'raising' type does not share a semantic argument, but a syntactic one, i.e., the embedded subject.

Whereas actor control predicates conveys the participant's own conceptualization of preferences, desires, or emotions coded in the complement, 'raising' predicates encodes different kinds of mental experiences on the part of the participant. The syntactic behavior exhibited by a particular predicate containing one of these basic predicates is then a consequence of how the arguments of the matrix predicate are mapped onto the syntax.

References

Bach 1979

- Bresnan, Joan. 1982. Control and complementation. The mental representation of grammatical relations, ed. by J. Bresnan. Cambridge, MA: MIT Press.
- Chomsky, Noam. 1981. Lectures on government and binding. Dordrecht: Foris.
- Chomsky, Noam. 1986
- Cristofaro, Sonia. 2003. Subordination. *Studies in Typology and Linguistic Theory*. Oxford-New York: Oxford University Press.
- Culicover, Peter W., and Ray Jackendoff. 2001. Control is not movement. *Linguistic Inquiry* 32. 493-512.
- Guerrero, Lilián. 2004. The syntax-semantic interface in Yaqui complex sentences, a Role and Reference Grammar analysis. Dissertation. University at Buffalo.
- Horstein, Norbert. 1999. Movement and control. *Linguistic Inquiry* 30. 69-96.
- Foley, W and Robert D. Van Valin, Jr. 1984. *Functional syntax and universal grammar*. Cambridge University Press.
- Jackendoff, Ray. 1972. *Semantic interpretation in generative grammar*. Cambridge, MA: MIT Press.
- Jackendoff, Ray and Peter W. Culicover. 2003. The semantic basis of control in English. *Language* 79 (3), 517-556.
- Langacker, Ronald. 1995. Raising and transparency. *Language* 71 (1), 1-62.
- Pollard, Carl and Ivan Sag. 1994. *Head-driven phrase structure grammar*. Chicago: University of Chicago Press.
- Postal, Paul M. 1970. On coreferential complement subject deletion. *Linguistic Inquiry*. 439-500.
- Rosenbaum, Peter. 1967. *The grammar of English predicate complement constructions*. Cambridge, MA: MIT Press.
- Sag, Ivan A. and Carl Pollard. 1991. An integrated theory of complement control. *Language* 67 (1), 63-113.
- Van Valin, Robert D., Jr. and Randy LaPolla. 1997. *Syntax: Structure, Meaning and Function*. Cambridge: Cambridge University Press.
- Van Valin, Robert D., Jr. 2005. *The pragmatic-syntax-semantic interface. An introduction to Role and Reference Grammar*. Cambridge: Cambridge University Press.