

undergoes raising to T. However, it is not entirely clear what motivates such a movement. Note, however, Carnie's (1995, 1997) discussion on equative constructions and a null copula in Irish. It is worth noting that Carnie postulates the null copula to account for sentences such as (i) below, where apparently the predicate NP does not undergo raising. That is, when the copula is present, it moves independently of the predicate NP. Contrast (i) with (ii), the regular NP predicate construction, in which the predicate NP occurs sentence initially.

- (i) Is é Seán an captain.
C AGR the captain
"Seán is the captain." (Carnie 1995: 128)

- (ii) Is dochtúir mé.
C doctor me
"I am a doctor." (Carnie 1995: 138)

32. It is possible that T as a functional head is present, but only phonologically null. Alternatively, it could be that nominal predicate constructions lack T entirely and clitics cannot be licensed either phonologically or syntactically.

33. McCloskey (1996) has pointed out that VSO is not a unified phenomenon. Note also that some other authors in this volume such as Davis, Oda, and Laughren, Pensalfini and Mylne draw a similar conclusion for independent reasons.

Force first

Clause-fronting and clause typing in San Lucas Quiaviní Zapotec*

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String-vacuous movement of large constituents or multiple constituents has been proposed for a number of languages for theory-internal reasons (Kayne 1998; Koopman & Szabolcsi 1998; den Besten & Webelhuth 1990). This paper will present evidence from San Lucas Quiaviní Zapotec, a verb-initial Otomanguean language spoken in southern Mexico, that covert clausal movement is both syntactically and semantically motivated. This evidence comes from the existence of overt clausal movement in the language (in adverb constructions and yes/no questions) and from interpretive constraints on constructions that require high projections in the left periphery to be filled.

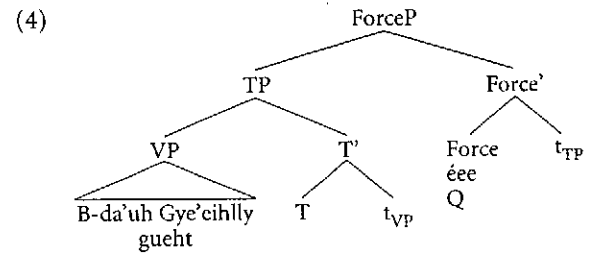
1. Introduction

Verb-initial languages are typically held (see Carnie & Guilfoyle 2000a and Greenberg 1963 for example) to share a number of features: they tend to be overwhelmingly head-initial, and tend to realize A'-movement (such as *wh*-movement, focus and QR) overtly. San Lucas Quiaviní Zapotec (SLQZ), an Otomanguean language spoken in Oaxaca, Mexico, appears to be a prototypical VSO language: it is consistently head-initial (head nouns precede possessors and modifiers and relative clauses, there are prepositions rather than postpositions etc.). However, it has a number of structures in which appear, at first glance, to be head-final. For instance there are several contexts in which sentence-final clause-typing particles take scope over the entire clause:

- (1) The yes/no marker *èee*:
B-da'uh Gye'eihlly gueht *èee*?
PERF-eat Mike tortilla Q
"Did Mike eat tortillas?"

- (2) The echo question particle *làaa*
 G-auw-a' *làaa*?
 IRR-eat-1s Q
 "I should eat?" (Munro, Lopez, et al. 1999: 147)
- (3) The quotative particle *nneh*
 B-gàa'ah bwààa'n *nneh*.
 PERF-be.caught thief QUOT
 "It's said the thief was caught." (Munro, Lopez, et al. 1999: 195)

I argue that these structures are actually head-initial, and thus consistent with the verb initial typology: the sentence-final particles are base-generated above – and to the left – of the rest of the clause. This derives the scopal effects of these clause-final particles while maintaining the basic head-initial structure of the language. Assuming that these particles are generated in the CP domain (as heads of ForceP, using Rizzi's 1997 term for the clause-typing projection in CP), their clause-final position can be derived by raising the remnant of the clause to the specifier of ForceP (4). As such these particle final constructions are part of the greater pattern of remnant movement (of both VPs and TPs) that derives the verb initial character of SLQZ.



1.1 The case for clausal movement

Movement of large constituents or multiple constituents – even string-vacuously – has been proposed for a number of languages (Kayne 1998; Koopman 1996; Koopman this volume; Lee 2000a; Massam 2000a; Rackowski & Travis 2000; among others). While overt clause fronting derives the right word order facts in (4), the strategy of clause-fronting itself raises a number of questions, including the featural motivation for the movement. In light of this, we need to motivate the movement of an entire clause. We also need to account for how string vacuous clause movement can be learnable. And most importantly, we need to find independent empirical evidence for string-vacuous movement of large constituents.

In this paper, I present three SLQZ constructions that show that clause fronting – both overt and covert – exists, and can be both syntactically and se-

mantically motivated. These constructions are (1) yes/no questions with sentence-final question markers; (2) sentences containing the definite (emphatic future) aspect marker; and (3) constructions with the irrealis (future/present subjunctive) aspect marker. A theoretical consequence of clause fronting is that interpretive features can be checked on large XPs (clauses), as well as on individual lexical categories. These data also show that SLQZ provides a counterexample to Oda's (this volume) observation that VP-fronting languages disallow movement for clause-typing purposes.

2. Overt clausal movement: Yes/no questions with *éee*

I claim that clause-fronting takes place in yes/no questions with the sentence-final marker *éee*, as seen in (4). One piece of evidence for clause fronting comes from the semantics of questions with *éee*. SLQZ has two other yes/no question markers, which are both sentence-initial:

- (5) *Laàa'* b-da'uh Gye'eihlly gueht?
 Q PERF-eat Mike tortilla
 "Did Mike eat tortillas?"
- (6) *Uu* b-da'uh Gye'eihlly gueht?
 Q PERF-eat Mike tortilla
 "Did Mike eat tortillas?"

These markers are not interchangeable; question marker choice is determined by the information structure of the question. The preverbal question marker *uu* is used only when the speaker expects a positive answer; *laàa'* is used to form questions about new information, and *éee* is used to question information previously introduced into the discourse.

- (7) *Uu* n-u'uh tu Ø-zuu loongdèe?
 Q NEUT-exist who NEUT-stand outside
 "Is anyone outside?"
Context: The speaker is carrying a large load out of a store and expects someone to be available to help get it to the car.
- (8) *Laàa'* n-u'uh tu Ø-zuu loongdèe?
 Q NEUT-exist who NEUT-stand outside
 "Is anyone outside?"
 #*Uu* n-u'uh tu Ø-zuu loongdèe?
 #*N-u'uh* tu Ø-zuu loongdèc éee?

Context: The speaker is robbing a house, and is asking his/her accomplice to make sure the coast is clear.

In (8), the speaker is introducing the possibility that someone might be outside – and is thus questioning new information.

- (9) N-u'uh tu Ø-zuu loongdèe èee?
 NEUT-exist who NEUT-stand outside Q
 "Is anyone outside?"

#Uu n-u'uh tu Ø-zuu loongdèe?

#Laàa' n-u'uh tu Ø-zuu loongdèe?

Context: The speaker is robbing a house, and his/her accomplice suddenly says "Don't go outside!" The speaker asks why.

In (9), the speaker is responding to the previously introduced possibility that there is a reason not to go outside. Thus, the question in this case is based on old information.

The sentence-final position of *èee* is a direct consequence of the information structure it encodes. In SLQZ, sentence-initial question markers and *wh*-words allow only one type of constituent to precede them: left-dislocated topics:

- (10) Gye'eihlly xi b-da'uh Gye'eihlly?
 Mike what PERF-eat Mike
 "(As for) Mike, what did Mike eat?"
- (11) Nài' laàa' w-nnine-u' Gye'eihlly?
 Yesterday Q PERF-talk.to-2SG.INF Mike
 "What about yesterday, did you talk to Mike?"

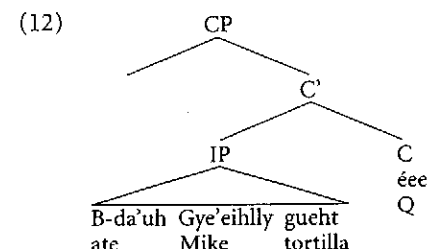
Left-dislocated (LD) topics in SLQZ are elements that have already been previously mentioned and are known to both the speaker and listener. Thus, constituents in the LD topic position are interpreted as presupposed or old information. Fronted propositions in *èee* questions likewise represent presupposed information. They can thus be taken to be left-dislocated topics themselves.

I assume that the *èee*, *laàa* and *uu* markers occupy the same position as the related particles in other verb initial languages, and the clause-finality of the *èee* particle is due to presupposed nature of the clause fronted into its specifier.

Hence, clause-fronting in *èee* questions is both syntactically and semantically motivated: semantically, clause-fronting marks the fronted clause as a topic, and syntactically, it accounts for the presence of a left-peripheral head on the right edge of a sentence in a consistently head-initial language.

2.1 Why not left-branching? Some theoretical problems

One obvious account of sentence-final clause markers is that they are base generated in left-branching CP projections:



This proposal raises a number of questions. First, what would motivate CP to be left branching in some contexts, but not others? Second, how would this account for the semantic distinction between sentence-initial and sentence-final question markers? Finally, how can a structure of this type be acquired in a language that is otherwise consistently head-initial and, moreover, has a large number of head-initial structures with filled CP projections?

This section shows that SLQZ provides consistent evidence for head-initial CP structures, and no independent evidence for head-final CP structures. Thus, head-initial CP structure involving movement is more learnable – and thus, more plausible – than a more economical derivation with a head-final CP.

SLQZ has obligatory A'-movement to the left edge in most structures. *Wh*-in situ is disallowed or highly dispreferred by most speakers:

- (13) Xi cay-ùall Jwaany?
 what PROG-read Juan
 "What is Juan reading?"

Focus and topicalization are realized by fronting of the focused or topicalized constituent:

- (14) Gye'eihlly y-tàa'az Li'eb.
 Mike IRR-beat Felipe
 "MIKE will hit Felipe"/"Felipe will hit MIKE."
- (15) A Gye'eihlly b-da'uh bx:àady.
 TOP Mike PERF-eat grasshopper
 "Mike (who we were discussing) ate the grasshoppers."

Negated constituents are always clause-initial:

- (16) A'ti' li'ebɾ-dya' cay-ùall Jwaany
 NEG book-NEG PROG-read Juan
 "Juan is not reading a book."

Other quantified phrases generally appear in preverbal position:

- (17) Choon be'cw r-a'p Gye'eihlly.
 three dog HAB-have Mike
 "Mike has three dogs."

SLQZ allows multiple preverbal constituents to appear simultaneously, consistent with Rizzi's (1997) proposal that CP contains multiple functional projections. Focused-fronted constituents may appear with both sentence-initial and sentence-final question markers:

- (18) Laàa' Gye'eihlly b-gyàa'ah?
 Q Mike PERF-dance
 "Did MIKE dance?"
- (19) Gye'eihlly b-gyàa'ah èee?
 Mike PERF-dance Q
 "Did MIKE dance?"

(18) is consistent with Rizzi's proposal that clause-typing morphemes are licensed in a higher CP projection (ForceP) than focused constituents (FocP). Thus, data of this type would support an SLQZ learner's acquisition of a consistently head-initial language. But there is no clear way a learner could conclude from such examples that ForceP is head-final in *èee* questions.

2.2 Adverb placement as evidence against left branching

There is independent evidence from adverb ordering against head final structures in SLQZ. SLQZ allows both sentence-initial and sentence-final adverbs:

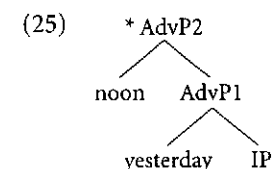
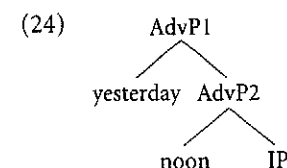
- (20) Nàì' b-da'uh Gye'eihlly so'p.
 yesterday PERF-eat Mike soup
 "Mike ate the soup yesterday."
- (21) B-da'uh Gye'eihlly so'p nài'.
 PERF-eat Mike soup yesterday
 "Mike ate the soup yesterday."

Adverbs generally remain in fixed order relative to each other:

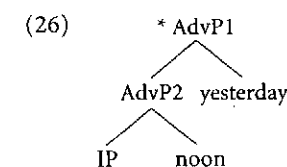
- (22) Nài' laizh:ih b-to'oh Gye'eihlly ca'rr.
 yesterday noon PERF-sell Mike car
 "Mike sold the car yesterday at noon."

- (23) *Laizh:ih nài' b-to'oh Gye'eihlly ca'rr.
 noon yesterday PERF-sell Mike car
 "Mike sold the car yesterday at noon."

This suggests that leftmost adverbs are generated in fixed positions above rightmost ones, consistent with Cinque (1999):



If right adjunction were possible, these adverbs should appear in reverse order (lower adverb first) sentence-finally:



This prediction, however, is not borne out. The two temporal adverbs maintain the same fixed order both sentence-initially and sentence finally:

- (27) B-to'oh Gye'eihlly ca'rr nài' laizh:ih.
 PERF-sell Mike car yesterday noon
 "Mike sold the car yesterday at noon."
- (28) *B-to'oh Gye'eihlly ca'rr laizh:ih nài'.
 PERF-sell Mike car noon yesterday
 "Mike sold the car yesterday at noon."

These data show that 'high' projections that appear sentence-finally are still head-initial. This confirms the theory that the sentence-final placement of sentence-level

modifiers must be derived by movement. By extension, this means head-final structures are disallowed in SLQZ.

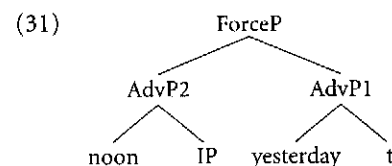
Another potential explanation for fixed adverb order is that multiple temporal adverbs actually form a single compound modifier. If this proves to be the case, then the fixed order of SLQZ temporal adverbs results from their forming a single constituent. This single compound modifier, then, can be assumed to be generated above and to the left of TP, as was argued for single temporal adverbs. As with other temporal adverbs, it may appear sentence-finally when IP raises past it. Suggestive evidence against this possibility comes from the fact that multiple temporal adverbs may be split: one may appear sentence-initially, while the other appears sentence-finally:

- (29) *Laizh:ih* b-to'oh Gye'eihlly ca'rr *nài*.
 noon PERF-sell Mike car yesterday
 "Mike sold the car yesterday at noon."

Crucially, the divided adverbs may only appear in this order: it is not possible for "yesterday" to appear initially while "noon" appears sentence-finally:

- (30) **Nài* b-to'oh Gye'eihlly ca'rr *laizh:ih*.
 yesterday PERF-sell Mike car noon
 "Mike sold the car yesterday at noon."

This is consistent with the proposal that "yesterday" is base-generated in a fixed position above "noon", and both are generated above and to the left of IP, as seen previously. The grammatical sentence with the adverbs separated ("noon" sentence-initially and "yesterday" sentence-finally) can be derived by raising IP and the lower adverb ("noon") past the higher adverb ("yesterday"):



However, if "yesterday at noon" is assumed to be a single, compound modifier – and adverbs that appear singularly are independently generated – the ungrammaticality of (30) is unexplained.

3. Definite aspect: A case of string-vacuous clausal movement into CP

The preceding sections have shown that clause fronting is responsible for seemingly unexpected word order patterns in SLQZ. The following sections will show that string-vacuous clause fronting is also possible, and is semantically and syntactically motivated.

The first construction involving string-vacuous clause movement involves the definite aspect marker, which is used to emphasize speaker confidence that a future event will take place:

- (32) S-tò'o'oh Gye'eihlly ca'rr.
 DEF-sell Mike car
 "Mike will *definitely* sell the car."

Sentences containing definite-marked verbs, unlike those with other verbal aspect markers, may not be negated:

- (33) **Cěi'ty* s-tò'o'oh-dya' Gye'eihlly ca'rr.
 NEG DEF-sell-NEG Mike car
 "Mike *definitely* won't sell the car."
 (34) *Cěi'ty* b-tò'o'oh-dya' Gye'eihlly ca'rr.
 NEG PERF-sell-NEG Mike car
 "Mike *didn't* sell the car."

They also disallow focus fronting, which verbs with other aspect markers do allow:

- (35) **Gye'eihlly* s-tò'o'oh ca'rr
 Mike DEF-sell car
 "MIKE will *definitely* sell the car."
 (36) *Gye'eihlly* b-tò'o'oh ca'rr.
 Mike PERF-sell car
 "MIKE *definitely* sold the car."

However, they do allow *wh*-words to be fronted:

- (37) *Tu* s-tò'o'oh ca'rr?
 who DEF-sell car
 "Who will *definitely* sell the car?"

This suggests that definite verbs occupy a position above negation, and at least as high as Focus, but not as high as Force (on the assumption that *wh*-words surface in ForceP).

These differing co-occurrence restrictions with focus-fronted and *wh*-words however, pose a problem. Focus-fronting normally blocks *wh*-movement in SLQZ

38), as it does in other languages – Italian (Rizzi 1997), Hungarian (Horvath 1986, among others), Standard Arabic (Ouhalla 1997).

- (38) *Tu Gye'eihlly y-tàa'az?
 who Mike IRR-beat
 "Who did MIKE beat/who beat MIKE?"

Long-distance *wh*-movement past focus-fronted constituents is disallowed:

- (39) Xi r-ralloh liu' [t g-a'u Gye'eihlly t]?
 what hab-think 2s IRR-eat Mike
 "What do you think Mike will eat?"
- (40) *Xi r-ralloh liu' [Gye'eihlly g-a'u t]?
 what hab-think 2s Mike IRR-eat
 "What do you think MIKE will eat?"

The complementarity of focus-fronted constituents and definite-marked verbs suggest they occupy the same position (the specifier of FocP): this would be consistent with both the emphatic reading given to definite-marked verbs, and the fact that SLQZ verbs are VP remnants, thus XPs that occupy specifier positions (Lee 2000b). So if definite verbs are in FocP, how can they allow *wh*-movement, which is normally blocked by filled FocP?

This dilemma can be resolved by clause-fronting. The preceding data show that while *wh*-words and focused constituents do 'compete' for a common position at some point in the derivation, *wh*-words actually surface higher than focused constituents. I propose that argument *wh*-words encode both focus and interrogative features: like focused constituents, they serve to select a single entity out of a range of possible options; argument *wh*-words must check features both in FocP and in ForceP.

TPs with definite verbs raise to FocP, and the *wh*-word in the fronted clause raises from FocP to ForceP. Following Nakajima (1996), I assume that constituents and traces within XP remnants may inherit the features of the projections containing the remnant: thus, a *wh*-trace inside a TP remnant in the specifier of FocP can satisfy the *wh*-expression's Focus features.

- (41)
-
- ```

graph TD
 ForceP --> WH
 ForceP --> FocP
 FocP --> TP
 FocP --> t_TP
 TP --> Triangle
 Triangle --> t_wh

```
- ...t<sub>wh</sub>...

Clause fronting, unlike simple verb fronting, also captures the fact that the entire proposition receives an emphatic reading (not just the verb):

- (42) S-tò'oh Gye'eihlly ca'rr.  
 DEF-sell Mike car  
 "Mike will *definitely* sell the car."  
 =It is definitely the case that Mike will sell the car  
 #Mike will definitely SELL the car (not lend it out).

Clause fronting thus accounts for different behavior of focus and *wh*-movement in definite aspect constructions, and also accounts for the emphatic interpretation of definite verb constructions.

#### 4. A second case of covert clause fronting: Verbs with irrealis aspect marking

The second puzzle that can be resolved by clause fronting involves constructions with the irrealis aspect marker, which may have two distinct readings, depending on syntactic context. One is a future reading (when irrealis-marked verbs appear in matrix clauses or in complements of non-intensional verbs):

- (43) Y-tò'oh Gye'eihlly ca'rr.  
 IRR-sell Mike car  
 "Mike will sell the car."

It is also interpreted with an irrealis reading in the complement of intensional verbs marked with present tense:

- (44) R-càa'z y-tò'oh Gye'eihlly ca'rr.  
 HAB-want IRR-sell Mike car  
 "Mike wants to sell the car."

The contexts in which irrealis-marked verbs get an irrealis reading correspond to those in which subjunctive mood is subcategorized in Romance, consistent with Poletto's (2000) claim that future and subjunctive verbs form a natural class.

Irrealis verbs with future readings undergo a different pattern of clausal negation than do verbs with other aspect markers. In standard SLQZ clausal negation, the verb appears between two discontinuous negative particles at the left edge of the clause:

- (45) Cè'ity r-yu'làaa'z-dya' Gye'eihlly bx:àady.  
 NEG HAB-like-NEG Mike grasshopper  
 "Mike doesn't like grasshoppers."

Irrealis verbs can participate in the normal clausal negation pattern; however, they can only do so when used with a subjunctive reading:

- (46) R-e'ihpy Lia Pa'amm làa'rěng g-wùall-rěng li'ebr.  
 HAB-tell Ms. Pa'amm 3.PL IRR-read-3.PL book  
 "Pam told them to read the books."
- (47) R-e'ihpy Lia Pa'amm làa'rěng [cě'ity g-wùall-dya-rěng li'ebr.]  
 HAB-tell Ms. Pa'amm 3.PL NEG IRR-read-NEG-3.PL book  
 "Pam told them not to read the books."  
 ≠ "Pam told them they will not read the books."

In the irrealis future negation, however, the two negative particles appear together clause-initially, and the verb appears to their right. In this construction, pronominal subject agreement (if any) must appear twice: following the negation complex and on the irrealis future verb itself.

- (48) G-wùall-rěng li'ebr.  
 IRR-read-3PL.PROX book  
 "They will read the books."
- (49) Cě'ity-dya-rěng g-wùall-rěng li'ebr.  
 NEG-NEG-3PL.PROX IRR-read-3PL book  
 "They will not read the books."

I analyze this construction as biclausal, with the irrealis verb heading an embedded clause, and a null copula appearing between the two negative morphemes.<sup>1</sup>

The irrealis-marked verbs encode both future and present subjunctive readings. However, they don't do so in the same syntactic contexts. This suggests that future irrealis verbs and present subjunctive irrealis verbs surface in different syntactic positions.

Clausal negation involves movement of verbs into NegP. Negation is always clause-initial in SLQZ, and constituent negation is preverbal, as seen in the following example:

- (50) A'ti' Sann Luu'c-dya' gw-eh Pa'amm.  
 NEG San Lucas-dya' PERF-go Pam  
 Pam didn't go to SAN LUCAS (but rather somewhere else)."

Negation is higher than the normal landing spot (TP) for verbs. This suggests that negated verbs surface higher in the structure than do non-negated ones.

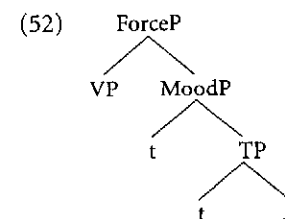
Irrealis-marked verbs with subjunctive, but not future, readings may raise into NegP. Negated irrealis-marked verbs with future readings must stay in the specifier of TP. Irrealis-marked verbs with future readings necessarily stay lower in the tree than irrealis-marked verbs with subjunctive readings.

The different positions of SLQZ irrealis-marked verbs can potentially be linked to two different kinds of modality, following Poletto's (2000) proposal that both subjunctive and future verbs encode modality. The 'future' reading may be linked to epistemic modality (possibility) while the 'subjunctive' reading may be linked to root (deontic) modality.

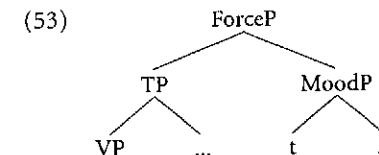
Linking the syntactic position of irrealis verbs to their modal interpretation, however, poses a paradox: the preceding negation patterns show that irrealis verbs with future (epistemic) readings are lower than those with subjunctive (deontic) readings. However, independent syntactic accounts (Cinque 1999, among others) posit epistemic modality scoping over deontic modality. English dialects that allow double modals (such as Southern American English) allow combinations in which epistemic modals take scope over deontic ones, but not vice versa (Feagin 1979):

- (51) John might could/ \*could might come.

The fact that irrealis-marked verbs with subjunctive readings appear in higher positions than those with future readings is problematic. This paradox can be resolved by clause movement. Irrealis verbs with subjunctive readings raise themselves into the appropriate modal projection (other modal projections and CP projections are omitted in (52) for clarity), then into ForceP, where they mark the entire clause as subjunctive.<sup>2</sup>



Irrealis-marked verbs with future (epistemic) readings stay in IP/TP, and the entire clause, with the VP remnant as its specifier, pied-pipes through the appropriate modal projection into ForceP.<sup>3</sup>



Thus, while irrealis verbs with future readings remain in TP, they are still able to satisfy their modal features by pied-piping TP through the appropriate modal projection.

#### 4.1 Semantic motivation for verb fronting and clause fronting

The choice of a verb-fronting or clause-fronting strategy for irrealis-marked verbs is independently motivated by the syntactic and semantic requirements of predicates that select them. Irrealis future clauses may appear as freestanding sentences or as complements of non-intensional verbs. These verbs subcategorize declarative sentential complements: elements of type *t*, or truth-value-bearing expressions:

- (54) Zi'cy nnah Gye'eihlly [yzh:ii y-nniinèe Gye'eihlly Li'eb.]  
 thus NEUT-say Mike tomorrow IRR-talk.with Mike Felipe  
 "Mike says he will talk to Felipe tomorrow."

ForceP, the clause-typing projection within CP, serves as the interface between the CP's internal contexts and its external environment. Clause fronting into ForceP is a possible strategy for marking the clause as finite, and thus consistent with the selectional requirements of a higher non-intensional predicate.

SLQZ lacks complementizers or other overt forms of clause marking in complement clauses. Given that other CP projections in SLQZ are strong (*wh*-movement, focus, and topicalization are all realized by overt movement), this suggests that non-interrogative clause marking may be marked by overt movement as well. A possible implication of this is that clause typing by clause fronting may take place in all indicative complement clauses in SLQZ.

#### 4.2 Why verb fronting of irrealis verbs with subjunctive readings?

Irrealis-marked verbs only get subjunctive readings as complements of intensional predicates. These predicates correspond roughly to those analyzed as restructuring verbs in other languages. SLQZ intensional predicates show restructuring properties: they allow null subjects (obligatorily bound by matrix subjects) in their complements, something which non-intensional verbs do not allow, as seen from the absence of a subject-control reading in (59).

- (55) R-càaa'z Lia Paamm g-ahcnèe Ø Gye'eihlly.  
 HAB-want FEM. Pam IRR-help Ø Mike  
 "Pam wants to help Mike."  
 (56) B-yennlàaa'z bxuuhahz ny-ahcnèe Ø Gye'eihlly.  
 PERF-forget priest SUBJ-help Ø Mike  
 "The priest forgot to help Mike."  
 (57) Nàannag bxuuhahz g-uhcnèe Ø Lia Paamm.  
 NEUT-know priest PERF-help Ø FEM. Pam  
 \*"The priest knew he helped Pam"/"The priest knew Pam helped."

SLQZ intensional verbs also allow focus fronting – which is otherwise clause-bounded – out of embedded clauses into a matrix clause:

- (58) Bxaady r-càaa'z Gye'eihlly g-auh Ø t.  
 grasshopper HAB-want Mike IRR-eat Ø t  
 "Mike wants to eat GRASSHOPPERS (not something else)."

Conversely, they do not allow focus fronting to take place within the embedded clause, even though this is normally allowable in other types of embedded clauses:

- (59) \*R-càaa'z Gye'eihlly bxaady g-auh Ø t.  
 HAB-want Mike grasshopper IRR-eat Ø t  
 "Mike wants to eat GRASSHOPPERS (not something else)."

As such, intensional verbs and their irrealis-marked complements behave like monoclausal structures: they share a subject, and movement operations treat them as a single clause.

Restructuring predicates take as their complements not independent propositions, but unsaturated predicates with which they share a subject: elements of type  $\langle e, t \rangle$ . I propose that restructuring is realized in SLQZ by raising an element of type  $\langle e, t \rangle$  – the VP – into ForceP to clause-mark the complement clause. This would also account for the fact that preverbal focus is disallowed in the complements of restructuring verbs: since subjunctive verbs occupy ForceP, which is above FocusP, focused constituents cannot precede the fronted verbs. The correlation between mood and the possible syntactic position of irrealis-marked verbs can be maintained in a theoretically consistent way: Clauses (TPs) front to ForceP in future irrealis constructions, while VPs themselves raise to ForceP in subjunctive irrealis constructions. Future irrealis verbs thus appear to be lower in the syntactic structure than do subjunctive irrealis verbs, even though both are contained in ForceP.

#### 5. Summary and implications

Clause typing in SLQZ is realized either by base-generated particles in ForceP (yes/no question markers) or by movement into ForceP. Since features of other CP projections (Focus, Topic, quantifier scope-marking positions) are checked by overt movement in SLQZ, this suggests that ForceP may also have strong features that must be checked overtly. Since there is independent evidence that SLQZ verb movement is actually VP-remnant movement (Lee 2000b), this present analysis would make SLQZ a counterexample to Oda's generalization (this volume) that clause typing by movement is disallowed in VP-fronting languages.



A more general implication that can be made from the clause-fronting patterns previously described is that string-vacuous clause fronting for clause-typing purposes may be the unmarked strategy for clause typing in SLQZ. This is suggested by (1) the fact that all CP-related features in SLQZ appear to be strong and (2) the limited inventory of clause-typing morphemes in SLQZ (*wh*-words, question markers, a relative marker, and a few discourse markers). Thus, if ForceP must be filled by PF and no clause-typing morpheme is present, clause fronting must be required.

## Notes

\* I am grateful to Rodrigo Garcia for providing the data and grammaticality judgments in this work. Thanks are also due to participants in the UBC Linguistics Department Research Seminar for their comments and suggestions on an earlier version of this talk. Any errors are my own.

1. See Lee (1999) for an analysis of this construction.
2. Raising of subjunctive verbs in CP has also been proposed for Italian (Poletto 2000) based on clitic placement and complementizer distribution facts.
3. I assume that SLQZ inflected verbs are VP remnants and thus occupy specifier positions. Motivation for this is given in Lee (1999, 2000b).

## V1 and *wh*-questions

### A typology\*

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This article investigates two issues: formation of *wh*-questions in V-initial languages, and the clausal architecture of Irish word order. The article first argues for a more general view of deriving matrix V-initial word order; it is derived either by head movement of a fully inflected verb to I° (as argued by Alexiadou & Anagnostopoulou 1998, 1999), or by XP-movement of VP to [Spec, IP] due to EPP requirement to check [PRED] (as argued by Massam 2000). The article further shows that XP-movement V-initial languages are banned from introducing interrogatives by T-to-C movement, and hence they resort to cleft strategy to front *wh*-items, as a natural consequence of the proposal that XP-movement V-initial languages employ [PRED] as the EPP feature consistently in the C-T layer. The latter part of this article re-evaluates the status of Irish syntax, proposing that Irish V-initial order is better analyzed as an instance of VP-movement, and Irish *wh*-questions as pseudo-clefts.

## 1. Introduction

In this paper, I investigate a typological correlation between V-initial order and the way that *wh*-questions are formed in V-initial languages. In particular, I argue that surface V-initial order has two sources, V-movement and VP-movement (see Otsuka this volume, for a similar argument), which correlates with the predication structure and the agreement system. Further, I will show that in VP-movement languages, a clause cannot be typed (in the sense of Cheng 1997) by movement. This conclusion is a natural consequence of a reformulated Extended Projection Principle (EPP) requirement: VP-movement languages consistently employ [PRED] as the EPP feature in the C-T layer. Because *wh*-movement occurs only when the EPP is checked by a  $\phi$ -feature, *wh*-movement cannot take place in VP-movement languages. Finally, I show that *wh*-questions in VP-fronting languages are predicate-initial. This analysis suggests that Irish may be best analyzed as a VP-