Configurationality in Classical Nahuatl[*]

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Abstract: Some classic generativist analyses (Jelinek 1984, Baker 1996) predict that polysynthetic languages should be non-configurational by positing that the arguments of verbs are marked by clitics or affixes and relegating overt NPs/DPs to adjunct positions. Here I argue that the polysynthetic Uto-Aztecan language Classical Nahuatl (CN) was actually configurational. I claim that unmarked VSO order was derived by verb phrase (vP) fronting, from a base-generated structure of SVO. A vP constituent is evidenced by obligatory movement of indefinite object NPs with the vP, as in pseudo noun incorporation analyses given for VOS order in other predicate-initial languages such as Niuean (Polynesian) (Massam 2001) and Chol (Mayan) (Coon 2010). The CN case is interesting to contrast with languages like Chol, which lack head movement, in that the CN word order facts show the hallmarks of vP remnant movement (i.e., the fronting of the verb plus its determinerless NP object into a position structurally higher than the subject), while the actual morphology of the CN verb shows the hallmarks of head movement (including noun incorporation, tense/aspect/mood suffixes, derivational suffixes such as the applicative and causative, and pronominal agreement prefixes marked on the verb). Finally, in regard to the landing site for the fronted predicate, I argue that the placement of CN's optional clause-introducing particle *ca* necessitates adopting the split-Comp proposal of Rizzi (1997), as is suggested for Welsh by Roberts (2005). Specifically, I claim for CN that *ca* is the head of ForceP and that the predicate fronts to a position in the structurally lower Fin(ite)P.

Keywords: configurationality, polysynthesis, pseudo noun incorporation, Classical Nahuatl

1   Introduction

Two classic theories within generative grammar, Jelinek's (1984, 2006) *Pronominal Argument Parameter* and Baker's (1996) *Polysynthesis Parameter*, entail a crucial implication that polysynthetic languages should be *nonconfigurational*, in that the subject and object arguments of a transitive verb in such languages are said to be marked by pronominal affixes (or clitics), whereas any overt subject and object NPs (or DPs) appearing in the clause are relegated to adjunct positions. This kind of account makes two important predictions: (i.) that verbs should not form constituents with their object NPs (or DPs), e.g., in a verb phrase (VP or vP), and (ii.) that subject and object NPs/DPs should not show structural asymmetries. In this paper I will argue that both predictions are false for the polysynthetic Uto-Aztecan language Classical Nahuatl (CN). Rather, I suggest that this language was indeed configurational despite also being polysynthetic.

My aim in this paper is to demonstrate that the nonconfigurationality prediction fails for Classical Nahuatl by showing that NPs/DPs in this language did indeed originate in argument positions. The paper is structured as follows. Section 2 provides the requisite background on CN and addresses the issue of positing a synchronic theoretical analysis for a no-longer spoken, "literary" language. Section 3 paints the empirical picture for the CN word order facts and gives

three arguments for configurationality. Section 4 presents my synchronic analysis. Here I will point to an intriguing conundrum found in this language: namely, that while the CN word order facts suggest a VP (or *v*P) remnant movement account, the actual verbal morphology of the language strongly suggests head movement. Section 5 concludes.

2 Background

2.1 Classical Nahuatl as a literary language

CN (ISO 639-3 nci) was a polysynthetic language of the Uto-Aztecan (UA) family spoken in central Mexico, as was recorded by Spanish colonialists during the first century and half (or so) after the fall of the "Aztec" empire in 1521. It falls into what has been classified as the "Aztecan" branch of UA, which is by far the largest UA sub-group both in terms of numbers of extant speakers and the number of distinct varieties attested. CN is the longest-documented and best known Nahuatl variety. It was spoken by the political elites in the Nahua ("Aztec") capital city Tenochtitlan at the time of the Spanish conquest and was then documented by Spanish missionaries (~1521–1650). Dictionaries and grammars exist from the colonial era: e.g., Olmos' grammar (1547), Molina's dictionary (1555), and Carochi's grammar (1645). There are also extensive collections of texts, with the *Florentine Codex*, published in 12 volumes and requiring Bernardino de Sahagún some 30-odd years to prepare (finished 1575–7), being particularly worthy of note.

As a language which is only known through the written record, CN is now a literary language. There are no current "native speakers" (i.e., no potential language consultants), so some abstraction must be drawn from the textual evidence that we do have, and "synchronic" theoretical analyses will necessarily be suggestive rather than conclusive. Nevertheless, current ideas from linguistic theorizing seem to shed some insight into CN language structures, and data from this language certainly bear on modern theories. Precedents for using non-spoken, "dead" languages to make important empirical claims relevant to contemporary linguistic theory-building include Embick (2000) on Latin and Stump (2001) on Sanskrit, to name just two.

Finally, a quick note on my CN sources. I rely here primarily on the grammatical description of CN provided by Launey (2011), and to a lesser extent Carochi (1645/2001) and Lockhart (2001).

2.2 Classical Nahuatl morphology

Before proceeding with our main discussion, some background remarks on CN verb and noun morphology are in order. First, CN was incontrovertibly polysynthetic in Baker's (1996) sense. Most crucially, there were obligatory pronominal prefixes for both subject and object relations in the verbal complex. The full set of CN subject and object prefixes are shown in (1a) and (1b), respectively. (I follow many others in assuming ø- for 3SG; plurality was distinguished by a glottal stop suffix, as shown in the contrast between (2c) and (2f)):

(1)　a. <u>Subject Prefixes</u> (Lockhart 2001: 1)　　b. <u>Object Prefixes</u> (Lockhart 2001: 9)

	SG	PL			SG	PL
1	ni-/n-	ti-/t-		1	(-)nech-	(-)tech-
2	ti- t-	am-/an-		2	(-)mitz-	(-)amech-
3	ø-	ø-		3	(-)c-/qui-	(-)quim-/quin-

Examples of these affixes in use with an intransitive verb root, √*miqui* 'die', and a transitive verb root, √*nequi* 'want', are illustrated in (2) and (3), respectively.[1]

(2) a. *nimiqui*   b. *timqui*   c. *miqui*   (Launey 2011: 13)
       ni-miqui   ti-miqui   ø-miqui
       1SG.S-die   2SG.S-die   3.S-die
       'I die'   'You die'   'S/he dies'

     d. *timiquî*   e. *ammiquî*   f. *miquî*
        ti-miqui-ʔ   am-miqui-ʔ   ø-miqui-ʔ
        1PL.S-die-PL   2PL.S-die-PL   3.S-die-PL
        'We die'   'You (PL) die'   'They die'

(3) a. *nicnequi*   b. *quinequi*   c. *anquinequi*   (Lockhart 2001: 9)
       ni-c-nequi   ø-qui-nequi   an-qui-nequi
       1SG.S-3SG.O-want   3.S-3SG.O-want   2PL.S-3SG.O-want
       'I want it'   'S/he wants it'   'Y'all want it'

There were also indefinite ("unspecified") object markers, both for human and nonhuman referents (i.e., *-te-* and *-tla-*, respectively). An example with both is shown in (4):

(4) *nitetlamaca*   (Lockhart 2001: 26)
     ni-te-tla-maca
     1SG.S-INDEF.PERS-INDEF.NON.PERS-give
     'I give something to someone' / 'I give something to people'

A second key feature of Baker's polysynthesis parameter is noun incorporation, which was quite productive in CN. In this construction an overt nominal root could appear in complementary distribution with the object marker:

(5) *nitlaxcalnamaca*   cf.   *nicnamaca*   or *niquimnamaca*
     ni-tlaxcal-namaca   ni-c-namaca   ni-quim-namaca
     1SG.S-tortilla-sell   1SG.S-3SG.O-sell   1SG.S-3PL.O-sell
     'I sell tortillas'   (Launey 2011: 170) 'I sell it'   'I sell them'

CN verbs can take a variety of derivational suffixes (CAUS, APPL, etc.), some of which can add at least one more object marker onto the prefixal chain of affixes:

(6) *nimitztētlaitquitilia*
     ni-mitz-tē-tla-itqui-ti-lia-ø-ø
     1SG.S-2SG.O-INDEF.PERS.OBJ-INDEF.NONPERS.OBJ-√carry-CAUS-APPL-tense-number
     1st-you-some.one-some.thing-carry-cause-involve-PRES-SG
     'I cause someone to carry something for you'   (Andrews 1988: 424)

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[1] A note on CN examples: the original orthographic form is always given first, along with a translation from my original source. The morpheme-by-morpheme glosses and gloss labels are usually my additions, either added to unparsed examples and/or standardizing the labeling system used in other sources.

In regard to nominal morphology, CN was unlike more typical Uto-Aztecan languages in not overtly marking (nominative or especially accusative) case on subjects and objects in a relatively rigid word order (which is usually, for UA, SOV). Examples of the more usual UA pattern is shown for Hopi (a Northern Uto-Aztecan singleton) in (7):

(7) Hopi (NUA singleton)

S	O	V	
Taaqa	*taavo-t*	*niina*	(Hill & Black 1998: 867)
man	rabbit-ACC	killed.SG/DL OBJECT	
'The man killed a/the rabbit'			

Now, to the heart of our discussion, where I argue against the prevailing view that CN was nonconfigurational (explicit in Baker 1996, implied by Jelinek 1984), suggesting instead that subject and object asymmetries point to a configurational analysis and an underlying SVO basic word order.

3 Arguments for configurationality in Classical Nahuatl

3.1 Argument 1: (Relatively) non-free word order

One of the classical hallmarks of "nonconfigurational" languages is a relatively free word order, as described for Warlpiri (Hale 1983) and Tohono O'odham (Zepeda 1983).[2] CN word order has not traditionally been described in these terms. Rather, although different word orders could certainly be used to convey different emphases, Launey (2011:30) describes the neutral word order as VS(O).[3]

(8)

V	S		O		
quitta	*in*	*cihuatl*	*in*	*calli*	(Launey 2011: 30)
ø-qu-itta	in	cihuatl	in	calli	
3SG.S-3SG.O-see	DET	woman	DET	house	
'The woman sees the house'					

While either the subject or the object could be focalized (yielding SVO or, more rarely, OVS and SOV orders), "OSV is virtually unknown" (Launey 2011: 30). Of course, in a polysynthetic language like CN, it was not actually all that common to express all of the arguments with overt NPs/DPs. These could be freely dropped when the verb morphology (or the context) made the reference to these relations clear, as in the example in (9) which illustrates the dropping of the subject:

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[2] Other typical distinguishing features of this typological class include discontinuous constituents and extensive utilization of null anaphora (Hale 1983).

[3] Steele (1976) argues, based on a corpus frequency study, that in colonial times CN may have been in transition to VSO from SVO. She does not emphasize the pragmatic differences that different word orders would have entailed, which will be captured in my analysis below. However, it is worth noting, in the context of the present discussion, that Steele definitely does not regard CN word order as being completely (or even relatively) free.

(9)　　　V　　　　　　　　　　　O

　　　niquitta　　　　　　*in*　　*calli*　　　　　　　(Launey 2011: 30)
　　　ni-qu-itta　　　　　　in　　calli
　　　1SG.S-3.SG.O-see　　DET　house
　　　'I see the house(s)'

In my analysis in section 4 I will argue that the underlying ("D-Structure") word order for CN was in fact SVO, with the V-initiality being derived by (*v*P-remnant) movement. For now, I will just suggest that the lack of free word order indicates that CN was *configurational* after all, contra the predictions of Baker and Jelinek.

3.2 Argument 2: Pseudo noun incorporation

The second argument for configurationality derives from Launey's observation that (*in)definiteness* is crucial to the understanding of the location of object NPs and DPs. Contrast (10) and (11):

(10) Unmarked VSO Order
　　　V　　　　　　　　S　　　　　　　　　O
　　　quicua　　　　　*in*　*cihuatl*　　*in*　*nacatl*　　　(Launey 2011: 30)
　　　ø-qui-cua　　　　in　　cihuatl　　in　　nacatl
　　　3SG.S-3.SG.O-eat　DET　woman　　DET　meat
　　　'The woman eats meat/the meat'

(11) VOS order
　　　V　　　　　　　　O　　　　　　　　S
　　　quicua　　　　　*nacatl*　　　　*in*　*cihuatl*　　　(Launey 2011: 30)
　　　ø-qui-cua　　　　nacatl　　　　in　　cihuatl
　　　3SG.S-3.SG.O-eat　meat　　　　　DET　woman
　　　'The woman eats meat'

Indefinite objects (i.e., those without the Determiner *in*) *must* follow the verb, while objects with the Det *in* (which can be interpreted as either definite or indefinite) are free to move to other positions (Launey 2011). This is very reminiscent of the pattern of pseudo noun incorporation (PNI) described for Niuean (Polynesian) by Massam (2001). In that language, on Massam's analysis, indefinite nominals move to the front of the sentence along with the verb, whereas definite objects move to an object position (Absolutive Phrase, in this Ergative/Absolutive language) to be marked with Absolutive case:

(12) Niuean (Massam 2001: 157 [5a, 5b])
　a.　V　　　　　　Adv　　　Emph　　S　　　　　　　O
　　　Takafaga　*tūmau*　*nī*　　　*e*　　*ia*　　*e*　　*tau*　*ika*
　　　hunt　　　　always　　EMPH　　ERG　he　　ABS　PL　　fish
　　　'He is always fishing'
　b.　V　　　　　　O　　　　Adv　　　Emph　　　S
　　　Takafaga　*ika*　　*tūmau*　*nī*　　　　*a*　　*ia*
　　　hunt　　　　fish　　always　　EMPH　　　ABS　he
　　　'He is always fishing'

Similar analyses have been proposed for other unrelated languages as well, including Chol (Mayan) (Coon 2010). I will adopt the PNI analysis involving verb phrase movement for CN here, although the details differ somewhat from what has been proposed for Niuean and Chol.

I suggest that CN *in* marked the category D, and as such is diagnostic of DPs. The ambiguity of such DPs indicates that the particle *in* itself was ambiguous, marking both definite and indefinite DPs (see examples like *niquitta in calli* I-it-see DET house 'I see a/the house(s)'; Launey 2011: 30). Nominal phrases without *in* were determinerless NPs (i.e., NPs which have no D at all, rather than a DP headed by a null D), and so they *require* an indefinite interpretation (see examples like *niquitta calli* I-it-see house 'I see houses'; Launey 2011: 30).

The PNI argument for an underlying VO order, then, is the following. Adopting Massam's analysis of PNI in Niuean, the V and its DP or NP object form a constituent at Deep Structure. CN object DPs can receive accusative case and so can move to the specifier of an AgrO projection. When the (remnant) verb phrase moves leftward, over the Subject if present, it will yield the V(S)O order. Determinerless NP objects, on the other hand, remain in the VP and move with that phrase to a predicate-initial position, to the left of the subject; hence, both the verb and its object move to left of the subject, if it is present, yielding the characteristic VO(S) order found in PNI constructions. (The motivation for PNI is that, presumably, accusative case can only be assigned to DPs, so caseless complement NPs must stay with the main V as the VP fronts.)

These facts about CN object placement, which hinge on (in)definiteness, are consistent with the presence of a VP (or *v*P) constituent. Such facts would not be captured on a non-configurationality account.

3.3 Argument 3: The double focus construction

My third and final argument for configurationality in CN is based on Launey's observation that OSV word order is "unheard of". On my analysis, to be detailed in section 4, word orders involving subjects and objects to the left of V involve movement of subject and object DPs (and maybe NPs) to left-peripheral positions, e.g., FocusP; see (13) and (14), respectively. Such movement is motivated by focalization, e.g. of the subject to yield SVO order (as in 13) or of the object to yield OVS order (as in 14).

(13)	S		V		O		
	in	*cihuatl*	*quitta*		*in*	*calli*	
	in	cihuatl	ø-qu-itta		in	calli	
	DET	woman	3SG.S-3.SG.O-see		DET	house	
	'(As for) the woman, (she) sees the house'						(Launey 2011: 30)

(14)	O		V		S		
	in	*calli*	*quitta*		*in*	*cihuatl*	
	in	calli	ø-qu-itta		in	cihuatl	
	DET	house	3SG.S-3.SG.O-see		DET	woman	
	'As for the house, the woman sees it'						(Launey 2011: 30)

Further evidence for these left-peripheral positions is the fact that overt pronouns *must* appear *before* the verb. When such pronouns appear they carry a pragmatic emphasis typical of topic and focus, as might be expected in a polysynthetic language which otherwise marks subject and object relations via prefixal agreement markers on the verb.

The crucial piece of evidence for configurationality in the left periphery is that, although both subject and object can be focalized in the same utterance, there seems to be a restriction on the order of those two elements with respect to one another: specifically, the subject must precede the object, and so SOV order is possible but OSV order is apparently not:

(15) S   O   V
in cihuatl in calli quitta
in cihuatl in calli ø-qu-itta
DET woman DEThouse 3SG.S-3.SG.O-see
'as for the woman and the house, she sees it'   (Launey 2011: 30)

(16) O   S   V
* in calli in cihuatl quitta
*in calli in cihuatl ø-qu-itta
 DET house DET woman 3SG.S-3.SG.O-see
*'as for the house and the woman, she sees it'

Presumably this restriction would have been due to some kind of locality constraint on movement (e.g., something like Shortest Move or the Minimal Link Condition), which would have prevented the object from moving to the left of the subject in the left periphery.

As such, this restriction evinces an asymmetric, hierarchical structure between S and O in CN that should otherwise be precluded on a nonconfigurationality account.

4 Analysis

Although much work in contemporary generative grammar posits a cross-linguistically universal structure of SVO (e.g., Kayne 1994), most Uto-Aztecan languages are SOV and I am not aware of work which has argued for a derivation of this order from SVO in these languages; Haugen 2008, for example, just assumes a head-directionality parameter set to 'head-final' in the usual case. However, above I provided two arguments that CN was atypical (for Uto-Aztecan) in having the unmarked SVO order as its underlying order.[4] These include (i) the VOS order which appears with pseudo noun incorporation (involving VP-remnant movement, with VO order indicative of the underlying order of the VP constituent), and (ii) the double focus construction which allows SOV order but not OSV order (apparently indicating that O cannot be higher in the structure of the left periphery than S).

Much work in contemporary generative grammar has also proposed that verb-initiality is derived by movement (see, e.g., Emonds 1980, Carnie and Guilfoyle 2000, Massam 2001, Roberts 2005, Coon 2010, etc.), whether from an underling SVO order or otherwise. Linguists have conclusively shown that even relatively closely related languages can differ, on a micro-parametric level, with respect to the landing sites for fronted verbs/predicates (see, e.g., Rackowski and Travis 2000 and Otsuka 2005 on Polynesian, Roberts 2005 on Celtic, and Davis 2005 on dialects of St'át'imcets (Lillooet Salish)). For example, Old Irish may have involved V movement to Cº, due

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[4] In this, CN is quite unusual with respect to most other Uto-Aztecan languages. Verb non-finality is a hallmark of the linguistic area in which Classical Nahuatl was spoken (i.e. Mesoamerica, as defined by Campbell, Kaufman, and Smith-Starke 1986), however, so it is generally taken to be an innovation in Nahuatl which was likely due to language contact.

to a "filled C°" requirement (Carnie et al. 2000), but Roberts (2005) argues that this cannot be the correct analysis for Welsh.

For CN, presumably something high in the tree attracted the predicate and triggered predicate fronting. But, what moves?, where to?, and why? A variety of possibilities have been offered for other languages, including moving either the verb itself or the verb phrase remnant (i.e. the verb plus either an indefinite object, as in PNI, or the verb plus the trace of the moved definite object) to some structural position associated with CP or TP. For example, previous analyses have involved such movements as: V → C in Old Irish (Carnie et al. 2000) and Tongan (Otsuka 2005); VP remnant → spec, TP in Niuean (Massam 2001); *v*P remnant → spec, TP in Chol (Coon 2010). Teasing apart the specific details of the clausal architecture for CN may be impossible given the restriction to text-based data and the language's lack of some crucial diagnostics (e.g., subtle native speaker intuitions about the placement of adverbs). However, some of the evidence that we do have is at least fairly suggestive.

First, I do not think that a TP-based landing site (i.e., T° or spec, TP) is appropriate for CN. Prototypical languages which have received this analysis include the ergative/absolutive languages Niuean and Chol. In the latter case, for instance, Coon (2010) argues that no head movement occurs at all in the language, and that *v*P movement to the specifier of TP occurs as a last resort for the checking of strong agreement features on T°. In contrast, I assume that most nominative-accusative languages, including most Uto-Aztecan languages, have subjects that move to spec, TP for nominative case. For CN, this would be true despite the language not having overt case markers; thus, Nom would be a structural rather than purely morphological case. (An additional motivation for subject moving to spec, TP would be the EPP, independent from any considerations relating to nominative case). Assuming that specifiers are always to the left (a la Kayne 1994, Coon 2010), this would mean that the verb (or VP/*v*P remnant) would need to move even higher in the tree than TP.

The next logical option would be to propose some landing site within CP (i.e., C° or spec, CP). I am going to suggest that a crucial piece of evidence for determining the most likely landing site for CN involves the location of an optional particle within the language, *ca*, which, according to Launey (2011:22), "is the mark of an assertion whose sense is pretty much 'it is a fact that', 'certainly', 'in fact', but the use of it is so frequent [with nominal predicates] that one can dispense with it in the translation". For verbal predicates, "it is less necessary...and retains more of its proper sense" (p.22). An example with a nominal predicate is shown in (17), with (17a) being the unmarked predicate-initial order and (17b) involving subject-initial order with the subject carrying special focus:

(17) a. *ca*   *mēxìcatl*   *in*   *Pedro*   (Launey 2011: 22)
     PRT   Mexica   DET Pedro
     'Peter is a Mexica'

  b. *in*   *Pedro*   *ca*   *mēxìcatl*   (Launey 2011: 22)
     DET Pedro   PRT Mexica
     'Peter (as opposed to other people being discussed) is a Mexica'

One first temptation might be to claim that *ca* is a marker of C°, entailing that C° should not be a landing site for V or the VP remnant. However, positing movement to spec, CP would incorrectly yield an order with the verb (or verb phrase remnant) to the left of *ca*.
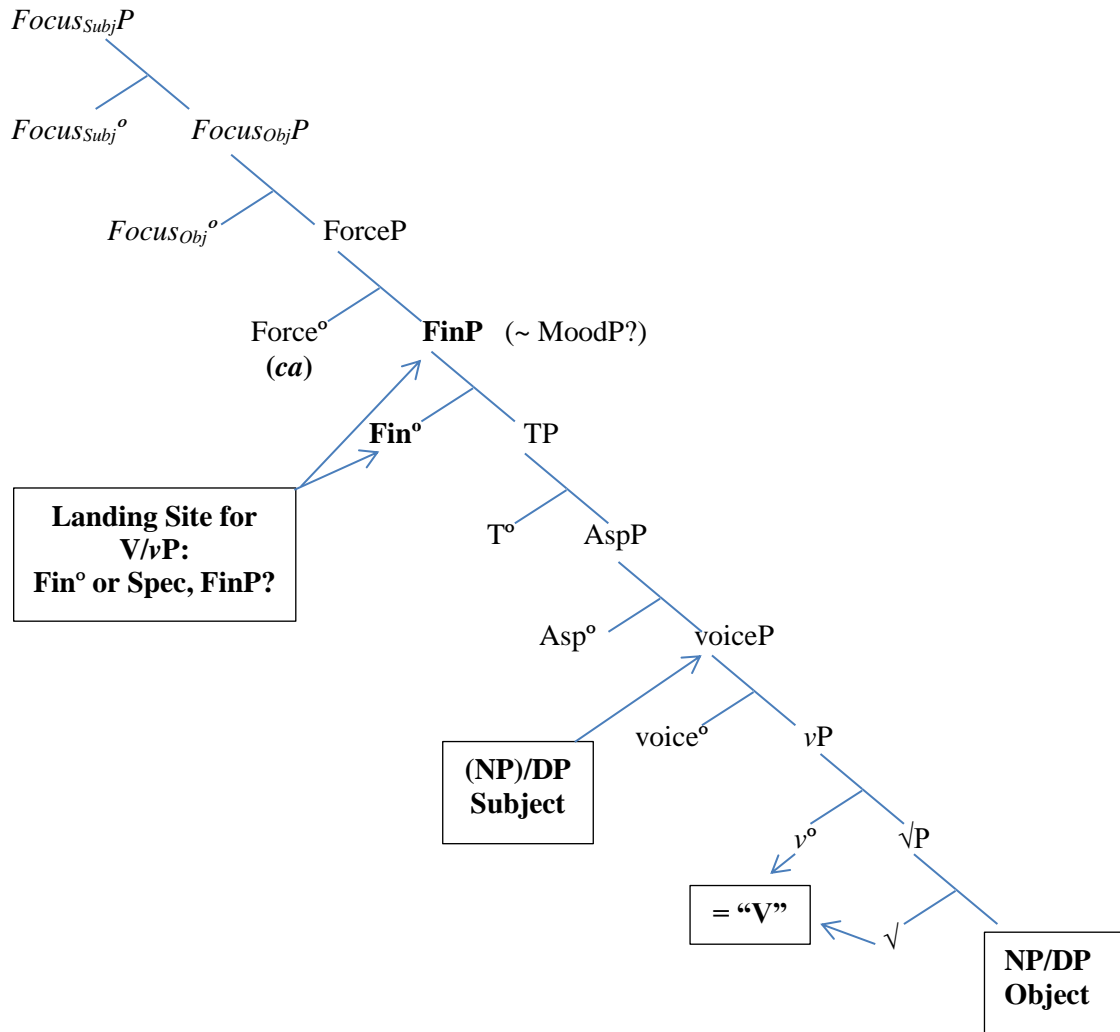
I submit that a solution can be found if we follow Roberts (2005), who employs the "split Comp" proposal of Rizzi (1997) and divides traditional C° up into a finer-grained set of functional

projections in the left periphery (i.e., higher than TP). Ignoring some optional recursive TopicPs, the split Comp proposal involves at least three functional projections: *ForceP* (associated with clausal typing and illocutionary force); *FocusP* (associated with focus); and *Fin(ite)P* (which marks clauses as ±finite, and may be associated with the more traditional MoodP projection). Roberts appeals to the intuition that some "complementizers like English *that* and Irish *go* mark two things: that the clause they introduce is declarative and that it is finite. In this respect, they are each associated with features of two heads, Force and Fin, just as a finite verb is associated with properties of V (thematic structure) and T (tense)" (Roberts 2005: 25).

The implication of this analysis is that traditional complementizers identified in some languages may be in one head or another of the split Comp (i.e. Forceº, Focusº, or Finº) rather than what we have come to identify as a single head, Cº. If Roberts' analysis is on the right track, then there should also be different possible landing sites as targets for moved elements (such as predicates). I propose that CN's optional particle *ca* was located in Forceº, as would be consistent with its interpretation as discussed above. This would then leave FinP as the phrasal target for predicate fronting. We'll leave Rizzi's FocusP aside, although this might have been the site for the locative adverbials, such as *nicān* 'here' and *ōmpa* 'over there', which Launey (2011: 45–6) notes usually appear just before the verb (accounting for the usual Locative-Verb-Subject order, or Subject-Locative-Verb order under subject focalization). The Deep Structure I propose for CN is given in (18).

As per (18), I assume that subject DPs originated in the specifier of voiceP, as has been argued, following Kratzer (1996), for many other languages including Chol (Coon 2010) and, within Uto-Aztecan, Hiaki (Harley 2013). The traditional "V" would have been composed of an acategorial root verbalized with a "little v" head, *v*. The root, if transitive, would take an NP or DP complement, the direct object. For purposes of exposition I include two Focus P's in the left periphery, with the structurally higher one demarcated for the subject in order to account for SOV order and to exclude the OSV possibility, as per Launey's (2011) observation that the latter order is "virtually unknown"; we will return to this below.

(18) Deep structure for the Classical Nahuatl transitive sentence

Focus_{Subj}P

Focus_{Subj}^o   *Focus_{Obj}P*

    Focus_{Obj}^o   ForceP

      Force^o   **FinP** (~ MoodP?)
      (***ca***)

        Fin^o   TP

          T^o   AspP

             Asp^o   voiceP

               voice^o   *v*P

                 v^o   √P

Landing Site for V/*v*P: Fin^o or Spec, FinP?

(NP)/DP Subject

= **"V"**   √

NP/DP Object

What remains to be explained are the following questions: what becomes of the subject and object NPs/DPs, and what moves to FinP: V or *v*P (remnant), and does that constituent move to Fin^o or to spec, FinP?

To take the issue of subject movement first, as already mentioned, I assume that the subject DP (or NP) would move to spec, TP for nominative case and/or the EPP in this nominative/accusative language. This would have been standard subject movement as has been argued to exist in related Uto-Aztecan languages like Hiaki (Harley 2013).

The status of the object would have been more complicated, and depended on whether the object was a DP or an NP. Following Rackowski and Travis (2000), there may have been more than one landing site for a DP object. Their wavering on the issue of object DP location is based on facts involving variable placement of definite objects "among or after postverbal adverbials" in Malagasy (p.125). Rackowski and Travis' reasoning derives from following Cinque's (1999) "universal hierarchy of functional categories which introduce adverbial expressions into the syntax" (p.117). On their account of Malagasy, the adverbial elements appear in fixed positions and the definite object has multiple possible landing sites, construed as AgrOPs, amidst those adverbial

positions. For this reason, I did not represent AgrOP in my deep syntactic structure in (18). However, I note that I assume that the relevant AgrOP (or possibly AgrOPs) in CN was (were?) inside TP, to yield an SO order in the default case (with the subject moving to spec, TP). In contrast, for Malagasy, a VOS language, Rackowski and Travis propose AgrOP as being above TP. The CN AgrOP (or possibly AgrOPs) would thus probably be placed more in line with what Coon (2010) proposes for the object position in Chol, which she places inside VoiceP.[5] I follow this proposal in the surface structure tree for CN in (19). In the scenario involving a DP object, then, this object would move to the specifier of an AgrO head before the predicate fronts. This, combined with subject movement to spec of TP concurrent with predicate-fronting, would lead to the unmarked VSO word order of the language.

But, what if the predicate actually fronts? Is it a verb or is it a remnant verb phrase—i.e., a verb phrase containing the verb and the trace of the moved DP? The answer to this question should be clear from the behavior of an NP direct object, and would at first sight seem to support the remnant VP (or vP) movement analyses given for Niuean (Massam 2001, Rackowski and Travis 2000) and Chol (Coon 2010). Under this kind of analysis, the NP object does not move to the specifier of an AgrO head, but, rather, it moves to the left of the clause along with the verb phrase (ultimately to the specifier of TP, on the analyses of Niuean and Chol). Following the FinP landing site that I have adopted for CN here, this predicate fronting PNI would lead to VOS order in CN, with the vP being in spec, FinP and the subject being in spec, TP.

However, I have a serious reservation about adopting this approach for CN. Crucially, one major motivation for Coon's (2010) remnant vP analysis for Chol is that head-movement appears to be entirely blocked in that language (and so $v°→T°$ is not a possible resolution for the strong agreement features on T°). This argument will not hold for CN, though, because this language clearly *does* have head movement (including $v°$ movement). Some of the crucial hallmarks of head movement identified by Coon as lacking in Chol, but which are clearly present in CN, include: lexical unergatives (e.g., *cuīca* 'sing'); robust noun incorporation (illustrated above);[6] tense, aspect and mood suffixes (presumably evincing movement of $v°→T°→Asp°→Mood°$) rather than preverbal particles and/or clitics; and subject and object agreement prefixes attaching to the verb (rather than XP-attaching agreement clitics, as in Chol).[7] To Coon's diagnostics we can also add the fact that CN had robust derivational suffix morphology, such as applicative and causative suffixes (see example (6)), the order of which mirror the clausal spine the way they would be expected to if the verb complex was derived via head movement; cp. Harley (2013) on Hiaki. Because CN shows the converse situation vis-a-vis Coon's diagnostics for lack of head movement in Chol, this thus constitutes an argument *for* head movement in CN. Accordingly, the likely landing site for predicate-fronting movement in CN would be Fin° rather than specifier of FinP.

Now the question is: *what moves*? I see two possible answers to this question, given the PNI facts discussed above. The first would be to follow the vP remnant movement analysis and have a phrasal constituent (i.e., the vP remnant which would contain the verb complex plus either an indefinite object NP, or the trace of the object DP which had previously moved to AgrOP) be what

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[5] For Chol, an ergative/absolutive language, Coon (2010) represents the object agreement phrase as Abs(olutive)P.

[6] If we follow Hale and Keyser's (1993) syntactic incorporation account of unergative denominal verbs (a la Haugen 2009), then these first two criteria would boil down to the same phenomenon: Baker (1988)'s *incorporation*, i.e., head movement.

[7] Another diagnostic for lack of head movement which Coon (2010) discusses for Chol, the absence of a lexical verb for 'have', is perhaps debatable for CN, which did have a verb stem, *-piya*, which could be used for 'have' but which is also often glossed as 'guard', 'keep', or 'hold'. The 'have' usage has been treated as a post-Spanish contact innovation modeled on Spanish *tener* (Lockhart 2001: 229).

moves into Finº. Allowing a phrase to move into a head position would be a controversial tactic, but it does have precedent (e.g., Carnie 1995).
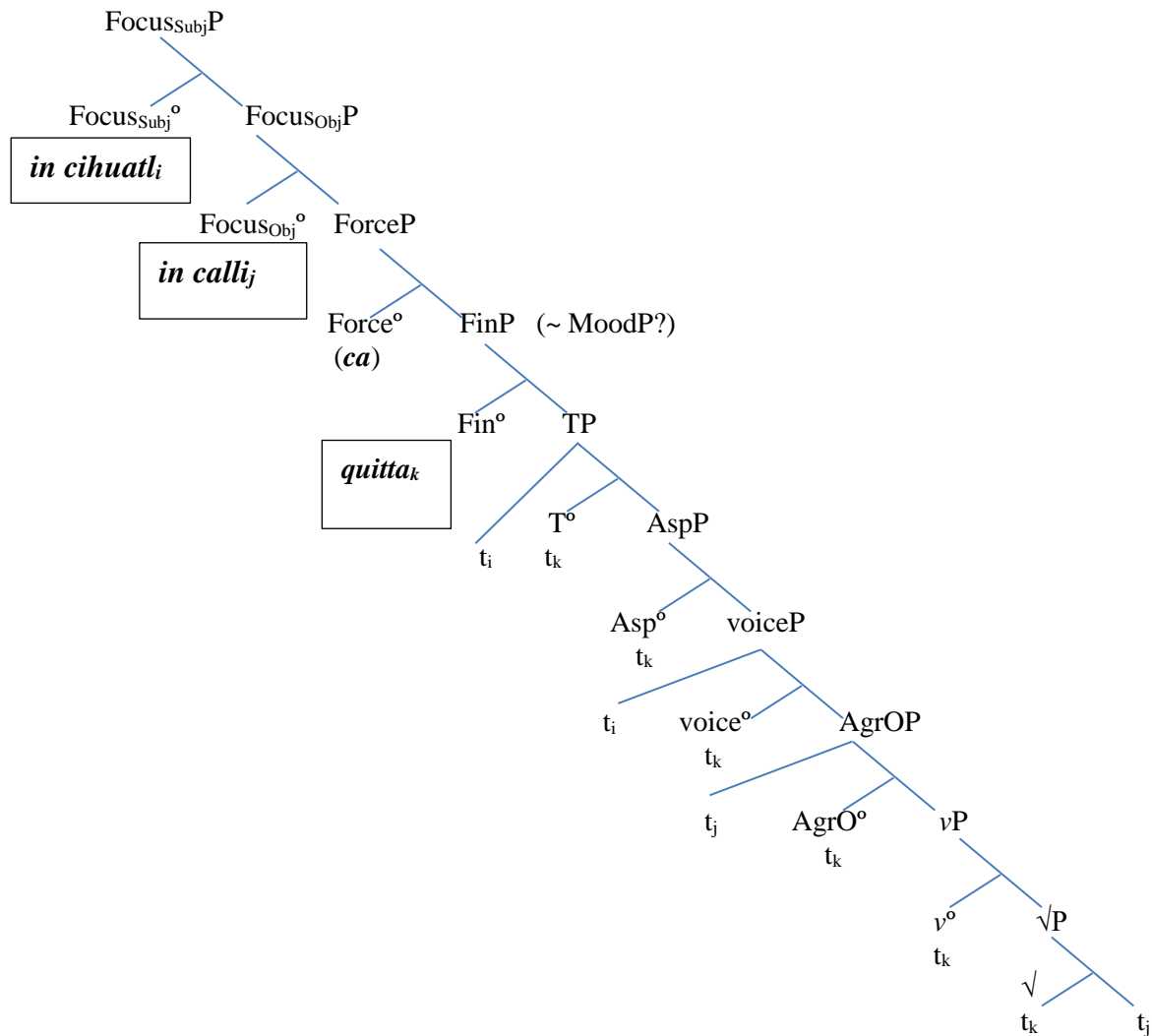
The second approach would be to claim that the indefinite NP actually *does* incorporate (via head movement), even though it does not morphologically attach to the verb itself. The difficulty with this approach is that CN already does have robust NI, where what is ostensibly an object nominal root incorporates from object position and it does merge into the verb complex, at least on standard analyses of NI for this language (Baker 1988, Haugen 2008). Although CN is not generally regarded as a language with object doubling (or "classifier incorporation" in the terminology of Rosen 1989), it may be possible to account for the co-occurrence of an incorporated nominal root with an external nominal NP via head movement and the Late Insertion of root material into the head and tail of a movement chain; see Haugen (2009) for an account of noun incorporation and denominal verb constructions with external hyponymous objects along these very lines. The different order of these presumed incorporated elements remains a concern, however, since incorporated roots appear inside the verb complex (between the subject prefix and to the left of the verb root where the object prefix would otherwise be found) and the external NP, under PNI, would presumably be in the base-generated complement position to the right of the verb.

At this point I will leave the choice between these two alternatives as undecided, perhaps allowing readers to appeal to their own prior commitments to decide the matter for themselves on metatheoretical grounds. Future work might be able decide the issue more conclusively on an empirical basis. Davis (2005), for example, offers a variety of tests for VP constituency which have yet to be applied to the CN data. These include VP ellipsis, VP anaphora, and (more problematically) coordination, some of which may shed some more light if it can be shown that more complex structure than the verb and the NP object front in CN.

The surface structure representation that I propose for CN is shown in (19). This tree shows the head movement undergone by all verbs (from $\sqrt{} \rightarrow v^o \rightarrow$ voice$^o \rightarrow$ Asp$^o \rightarrow$ T$^o \rightarrow$ Fin^o), as well as the SOV order brought about by the double focus construction. The DP subject moves from spec, voiceP $\rightarrow$ spec of TP (for EPP, in parallel to Hiaki and many other languages), and then it is focalized. A DP direct object would move to spec, AgrOP (for accusative case). I place this AgrOP inside voiceP following Coon (2010)'s proposal for Chol. In this example, this object, too, is then focalized. As per standard assumptions, the FocusP in the left periphery is recursive, but I use Focus$_{Subj}$P and Focus$_{Obj}$P as shorthand to show the asymmetrical structure wherein S is required to be higher in the structure of the left periphery than O. Although one could imagine a constraint-based approach to account for this asymmetry (e.g., a filter something along the lines of SUBJECT>>OBJECT), I assume that this hierarchical structure can be derived via standard constraints on movement (e.g., the Minimal Link Condition, Shortest Move, etc.).

(19) Surface structure for the Classical Nahuatl transitive sentence

(=14)	*in*	*cihuatl*	*in*	*calli*	*quitta*
	in	cihuatl	in	calli	ø-qu-itta
	DET	woman	DET	house	3SG.S-3.SG.O-see

'as for the woman and the house, she sees it'   (Launey 2011: 30)

FocusSubjP
FocusSubj° FocusObjP

in cihuatl$_i$

FocusObj° ForceP

in calli$_j$

Force° FinP (~ MoodP?)
(**ca**)

Fin° TP

quitta$_k$

T° AspP

t$_i$ t$_k$

Asp° voiceP
t$_k$

t$_i$ voice° AgrOP
t$_k$

t$_j$ AgrO° vP
t$_k$

v° √P
t$_k$

√
t$_k$ t$_j$

5   Conclusion

In this paper I have provided three arguments that CN was configurational, despite predictions to the contrary made by Jelinek's pronominal argument parameter and Baker's polysynthesis parameter. These arguments were: a lack of true free word order; a vP constituent containing at least the verb and its bare NP object in the PNI construction (yielding VOS order after predicate-fronting); and subject-object asymmetry in the double focus construction (where objects are prohibited from being higher than subjects in the left periphery). I have also identified an intriguing conundrum for CN: that the language shows the hallmarks of VP/vP remnant movement for predicate fronting (specifically, pseudo noun incorporation), but the verb morphology shows the hallmarks of head movement. Finally, I have supported Rizzi's "split Comp" proposal by suggesting that CN's optional clause-introducing particle *ca* marks the head of ForceP, while the predicate fronts to a non-apex phrasal projection within that "split Comp": Fin(ite)P—and specifically, Fin° rather than the specifier of FinP.

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