A Non-Uniform Merge of Argument WH: A Case Study in Kaqchikel

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1. Introduction: Based on original field research, this paper analyzes two possessor *wh* phrases in Kaqchikel, an under-documented language spoken in Guatemala. I propose that the two *wh* phrases are merged into the structure in different ways, on the basis of extraction out of PP: one is directly merged into Spec-CP via External-Merge, whereas the other involves movement to Spec-CP via Internal-Merge. While previous works have mainly discussed the possibility of a non-uniform Merge of *adjunct wh* phrases (Rizzi 1990, Collins 1991, Ko 2005), this study presents novel evidence that *argument wh* phrases such as possessor *wh* phrases can also be merged in a non-uniform way (cf. Cinque 1991).

2. Issues: Two possessor *wh* phrases are available to the language: *achoj* and *achike*. I assume that *achike*, which is used for ‘who/what/which’, is homophonous with the possessor *achike*. I call the former type of *achike* the non-possessor *achike*. There is a crucial difference between the two possessor *wh* phrases. *Achoj* must pied-pipe the possessor NP when it fronts to a left-peripheral position [1]. On the other hand, *achike* does not pied-pipe the possessor NP [2]. An issue arises when we compare *achoj* with *achike* with respect to extraction out of PP. P-stranding is disallowed in the extraction of *achoj* [3]. With multiple possessors [4], too, a subextraction of DP out of PP is not allowed [4b]. Instead, the whole PP with *achoj* remaining inside it must be raised to the left-peripheral position [4a]. Combining with (5), it can be argued that any movement past P is banned. On the other hand, it seems that *achike* can move past P, thereby allowing subextraction out of PP [6]. To the extent that both *achoj* and *achike* form a possessor interrogative with little difference in interpretation, the observed asymmetric syntactic behavior needs to be accounted for.

3. Analysis: To explain the asymmetric behavior between *achoj* and *achike*, I propose that *achike* is External-Merged into a Spec-CP and binds a null resumptive pronoun (*pro*) in an argument (=possessor) position, whereas *achoj* undergoes movement to Spec-CP [7]. Following Van Riemsdjik (1978) and Drummond, Hornstein and Lasnik (2010), contra Abels (2003), it can be claimed that PP in Kaqchikel does not have an escape hatch and hence disallows any extraction out of PP due to the locality of movement (Chomsky 1986, McCloskey 2000). With this in mind, the proposed non-uniform Merge of possessor WH can account for the contrast between *achoj* and *achike*: the former involves movement and cannot be extracted out of PP, whereas the latter only involves a binding relation between *achike* and *pro*, which is insensitive to the PP boundary/island.

4. Supporting Evidence: The proposed non-uniform Merge of possessor WH in Kaqchikel is supported by the fact that it makes correct predictions about other independent syntactic properties. First, the non-possessor *wh* phrase *achike* displays a subject-object extraction asymmetry characterized by the CED (Huang 1982, Chomsky 1986)[8]. This is expected if we assume the non-possessor *achike* to involve movement. On the other hand, the possessor *achike* is predicted not to display such asymmetry, since it does not involve movement into Spec-CP. This prediction is borne out [9]. Second, it has been observed that a pair-list reading is available only when a trace/copy of a *wh* phrase is c-commanded by a quantifier phrase in the overt syntax (see also May 1985, Collins 1991 and Lasnik and Saito 1994). To confirm this, [10a] is ambiguous between a group reading and a pair-list reading, while [10b] only has a group reading. With this in mind, we can predict that in questioning the object the possessor interrogative with *achike* is unambiguous, because *achike* is External-Merged into a Spec-CP and thus leaves no trace/copy in the object position. On the other hand, *achoj* is expected to be ambiguous because it starts out in the object position and leaves its trace/copy that can be c-commanded by the subject quantifier. This prediction is indeed borne out by [11]. As a last prediction, the present analysis offers an important insight into Agent Focus (AF) in Kaqchikel and a subset of Mayan languages. In Kaqchikel, like other AF languages, the questioning/relativizing/focusing of the ergative subject triggers AF, while the one of the absolutive object/subject does not. AF triggers a special morphology -o’o/lo’o in root transitives on the verb, and detransitivizes the verb [12]. Previous analyses of AF diverge roughly between a lexical approach (Stiebels 2006) and a syntactic approach (Aissen to appear, Coon and Pedro to appear), although I abstract away from details of these analyses here. The choice of either approach rests primarily on whether the presence of syntactic movement is relevant to the triggering of AF. If the proposed non-uniform Merge of possessor WH is correct, we can predict that the subject *achoj* triggers AF, whereas the subject possessor *achike* does not. This is because the possessor *wh* phrase *achike* does not involve movement, while *achoj* does. This prediction is correct, as shown by [13]. The contrast in [13] thus strongly suggests that AF is closely related to the presence/absence of syntactic movement of the subject, thereby undermining a lexical approach. In a full paper, furthermore, I show that possessor *achike* does display island effects except PP islands, contrary to the prediction that binding can be
formed via long-distance despite the presence of islands. This leads us to propose the **Clause-Mate Condition on the Resumptive Chain (CCRC)**, which requires that the operator (i.e., *achike*) and its variable (i.e., *pro*) must be Clause-Mate when the former is External Merged. In long-distance dependencies, therefore, *achike* must involve movement from the embedded Spec-CP to the matrix Spec-CP, which can explain island effects. I further demonstrate that the CCRC yields crucial consequences for how the possibility of resumption in a given language is determined, comparing with Irish and Hebrew. [Note that pronominal subjects and objects can be *pro-dropped*]

(1) a. *Achoj* r-i-xjaiyl x-pe ___?
   whose A3sg.-wife PRFV-come
   b. *Achoj* x-pe r-i-xjaiyl __?
   A= set A (*ergative*) agreement, B= set B (*absolutive*) agreement
   ‘Whose wife came?’
   ‘Whose wife came?’

(2) *Achike* *(chike rje)* x-pe r-i-xjaiyl __?
   whose among them PRFV-come A3sg.-wife?
   ‘Whose wife came?’

(3) a. *Pa* achoj *(ru-k’ayil* x-a-loq’o’n ___?
   P whose A3sg.-store PRFV-B2sg.-shop
   ‘Whose store did you shop at?’

(4) a. *Achoj* pa ru-k’ayil r-i-xjaiyl ___ x-a-loq’o’n ___?
   whose P A3sg.-store A3sg.-brother PRFV-B2sg.-shop
   ‘Whose younger brother’s store did you shop at?’
   ‘Whose store did you shop at?’

(5) *Achoj* pa ru-k’ayil r-i-xjaiyl ___ x-a-loq’o’n?
   whose P A3sg.-store A3sg.-wife PRFV-B2sg.-shop
   ‘Whose store did you shop at?’
   ‘Whose store did you shop at?’

(6) *Achike* *(chike rje)* x-a-loq’on [pa ru-k’ayil ___]
   whose among them PRFV-A2sg.-shop(intra) P A3sg.-store
   ‘Whose store did you shop at?’

(7) a. [C r-xjaiyl* [C ... [P r-xjaiyl ___]...]]], where *pro* is a null resumptive pronoun.
   b. [C *r-xjaiyl* [C ... [P *r-xjaiyl ___]]]

(8) a. *Achike*; x-b’an-o’ [ru-chofe rje] accidente?
   what PRFV-do/cause-AF A3sg.-driver accident
   ‘What did a driver of ___ cause an accident?’
   b. *Achike*; x-a-tz’et [ru-chofe rz]
   what PRFV-A2sg.-see A3sg.-driver
   ‘What did you see a driver of ___?’

(9) a. *Achike*; *(chike rje)* x-a-r’b’a’ [r-utz’i ___]
   whose PRFV-B2sg.-A3sg.-bite A3sg.-dog
   ‘Whose dog bit you?’
   b. *Achike*; *(chike rje)* x-a-tz’et [r-utz’i ___]
   whose PRFV-A2sg.-see A3sg.-dog
   ‘Whose dog did you see?’

(10) a. What, did everyone buy t for Max?
    b. Who t bought everything for Max? (May 1985: 38-39)

(11) a. [Achoj* ru-tz’i*] x-ki-ch’ey chekonojel t?
   whose A3sg.-dog PRFV-A3pl.-hit everyone (✓ group reading, ✓ pair-list reading)
   b. *Achike*; (chike rje’) x-ki-ch’ey chekonojel [r-tz’i ___]
   whose among them PRFV-A3pl.-hit everyone A3sg.-dog
   ‘Whose dog did everyone hit?’
   (✓ group reading, ✓ pair-list reading)

(12) a. *Achike* x-φ u-tz’et ri achi
   who PRFV-B3sg.-A3sg.-see the man
   ‘Who did the man see?’
   b. *Achike* x-φ t-z’t’et-o ri achi
   who PRFV-B3sg.-see-AF the man
   ‘Who saw the man?’
   (Ajsivinac Sian and Henderson, to appear)

(13) a. [Achoj ru-tz’i*] x-a-r’b’a’/x-a-r’b’a’ t? (rat)
   whose A3sg.-dog PRFV-B2sg.-bite-AF/PRFV-B2sg.-A3sg.bite you
   b. *Achike*; *(chike rje’)* x-a-r’b’a’/x-a-r’b’a’ [r-utz’i ___]
   whose (among them) PRFV-B2sg.-A3sg.-bite / PRFV-B2sg.-bite-AF A3sg.-dog
“Whose dog bit you?