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ON THE UNAVAILABILITY OF ARGUMENT ELLIPSIS IN KAQCHIKEL*

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1 Introduction

Argument ellipsis (AE) refers to the phenomenon of unpronounced nominal arguments (here written ***e***) that are interpreted as full noun phrases. Key diagnostics for AE include sloppy and quantificational readings. For example, consider the pair of Japanese sentences in (1):[1]

(1) a. Taroo-wa [**zibun-no musume**-ga eigo-o hanasu to] omotteiru.
Taroo-TOP self-GEN daughter-NOM English-ACC speak that thinks
'Taro$_i$ thinks [that **his$_i$ own daughter** speaks English].'

b. Ken-wa [***e*** furansugo-o hanasu to] omotteiru.
Ken-TOP French-ACC speak that thinks
(i) 'Ken thinks [that **Taro's daughter** speaks French].' strict: ***e*** = 'she'
(ii) 'Ken$_j$ thinks [that **his$_j$ own daughter** speaks French].' sloppy: ***e*** = 'his$_j$ own d.'

The null embedded subject in (1b) can be understood as referring either to the embedded subject of the antecedent (1a), Taro's daughter (the strict reading), or to Ken's daughter (the sloppy reading). This contrasts with the behavior of overt pronominals, which only allow strict interpretations (2):

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[1]The following abbreviations are used in glossed examples. For Japanese and Turkish: TOP topic, NOM nominative, ACC accusative, GEN genitive, DAT dative, PRES present, PAST past, FUT future, HON honorific. For Kaqchikel: CL classifier, PRF perfective, IMPF imperfective, FOC focus, NEG negation, AF Agent Focus.

(2) Ken-wa [**kanojo**-ga furansugo-o hanasu to] omotteiru.
Ken-TOP she-NOM French-ACC speak that thinks
a. 'Ken thinks [that **Taro's daughter** speaks French].' strict: *kanojo* = 'she'
b. *'Ken$_j$ thinks [that **his$_j$ own d.** speaks French].' *sloppy: *kanojo* = 'his$_j$ own d.'

In (2), only the strict reading in which *kanojo* 'her' is understood as referring to Taro's daughter is available. This dichotomy between the interpretation of null arguments and overt pronouns suggests that null arguments in (1b) cannot only be *pro*; they cannot simply be identical to overt pronouns in all but pronunciation. The sloppy interpretation can be achieved if the null argument in (1b) is the full DP *zibun-no musume* 'self's daughter' at LF, equivalent to its antecedent.

Extensive previous work on Japanese has demonstrated that these interpretational effects of null arguments as in (1) are not attributable to Verb-stranding VP-Ellipsis (e.g. Oku, 1998a, Saito, 2004, Takahashi, 2008a, *contra* Otani and Whitman, 1991) nor to null indefinite *pro* (e.g. Saito, 2007, Takahashi, 2008a; *contra* Hoji, 1998). For the remainder of this paper, we will assume these conclusions to be correct without further argument, and instead describe AE as involving ellipsis of an nominal argument, which can in turn be described as involving LF-copying or PF-deletion. A PF-deletion derivation for (1bii) is illustrated in (3):

(3) PF: Ken$_j$-wa [~~zibun$_j$-no musume-ga~~ furansugo-o hanasu to] omotteiru.
Ken-TOP self-GEN daughter-NOM French-ACC speak that thinks

Of course, not all languages and not all structural environments allow for null arguments interpreted as full noun phrases, i.e. argument ellipsis. *What determines whether a particular environment allows for argument ellipsis?* This question is especially important when we consider how the learner of a particular language might come to allow or disallow AE. One particularly influential account relates the availability / unavailability of AE in a given language or construction to the presence / absence of ϕ-agreement:

(4) **The Anti-Agreement Hypothesis for AE:** (Saito, 2007, Şener and Takahashi, 2010)
Argument Ellipsis is possible *if and only if* the argument is not ϕ-agreed with.

If a null argument *is* Agreed with, it is the result of null *pro*, not the result of AE, and will therefore lack sloppy interpretations of possessors, amongst other diagnostic behaviors to be discussed below. If a null argument *is not* Agreed with, it is allowed to be the result of AE, allowing for interpretation as a full independent noun phrase.

Otaki et al. (2013) show that null subjects and objects in Kaqchikel are not interpreted as full noun phrases, and therefore not the result of AE. They say that these facts lend support to the Anti-Agreement Hypothesis (4), given that Kaqchikel verbs agree with both subjects and objects.

In this paper, we consider additional syntactic environments not considered by Otaki et al. and show that the interpretation of Kaqchikel null arguments in fact *cannot* be held up as support for the Anti-Agreement Hypothesis. The empirical testing ground we introduce is the Agent Focus construction in Kaqchikel, where transitive verbs only exhibit ϕ-agreement with one argument (see e.g. Preminger, 2011, 2014, Erlewine, 2016). We show that, in Agent Focus constructions, even arguments that are not Agreed with disallow AE. This fuller set of data from Kaqchikel thus provides empirical and conceptual evidence *against* the Anti-Agreement Hypothesis for AE in (4), contrary to the conclusions of Otaki et al.

The remainder of the paper is organized as follows. In §2, we present details on the phenomenon of AE with particular reference to the correlation between the (un)availability of AE and the presence / absence of ϕ-agreement, and previous work on the absence of AE in Kaqchikel. §3 introduces novel data on the interpretation of null arguments in Agent Focus constructions. Here we show that sloppy interpretations of null arguments are unavailable even when the arguments are *not* Agreed with. This finding provides an empirical counterargument to the Anti-Agreement Hypothesis. §4 then provides an additional, conceptual counterargument to the Anti-Agreement Hypothesis. In short, a causal relation between the presence of ϕ-agreement and the absence of AE effects can only be maintained if failure of a ϕ-probe to find a licit goal induces ungrammaticality (Saito, 2007, Takahashi, 2013). However, Preminger's (2011, 2014) recent analysis of the Kaqchikel Agent Focus construction shows that its patterns of ϕ-agreement can only be captured if *ϕ-agreement is allowed to fail* without triggering ungrammaticality, invalidating the logic of the Anti-Agreement Hypothesis. §5 concludes. We then discuss how Kaqchikel data informs alternative accounts of the (un)availability of AE. We show that the behavior of Kaqchikel is only consistent with the proposals of Tomioka (2003) and Bošković (2016) that tie the (un)availability of AE to the NP/DP distinction. On this view, DP languages / constructions, like Kaqchikel, are expected to disallow AE, even in the absence of ϕ-agreement.

2 Background

In this section, we present further background on the cross-linguistically pervasive correlation between ϕ-agreement and AE, as well as previous work on the unavailability of AE in Kaqchikel.

2.1 Argument ellipsis and Agree

Languages with null arguments vary in the availability of AE. For instance, Spanish allows for null arguments, but they are not the result of AE, as diagnosed through the lack of sloppy interpretations of possessors. In (5a), *su propuesta* refers to the matrix subject—María's proposal.

(5) **Spanish disallows argument ellipsis:** (Oku, 1998a:305; 1998b:166)

a. María cree [que **su propuesta** será aceptada].
   Maria believes that her proposal will.be accepted
   'Maria$_i$ believes [that **her$_i$ proposal** will be accepted].'

b. Juan también cree [que ***e*** será aceptada].
   Juan also believes that will.be accepted
   (i) 'Juan also believes [that **Maria's proposal** will be accepted].' strict: ***e*** = 'it'
   (ii) *'Juan$_j$ also believes [that **his$_j$ prop.** will be accepted].' *sloppy: ***e*** = 'his$_j$ prop.'

In (5b), the Spanish null embedded subject must be understood as Maria's proposal and not Juan's, in contrast to Japanese null embedded subjects as in (1). This distinction can be characterized as follows: Japanese null arguments can be referential *pro* deriving strict possessor readings or elided arguments yielding sloppy readings, but Spanish null arguments are always *pro*, deriving only strict readings (Oku 1998a *inter alia*).[2]

Note that the availability of AE in some languages but not others poses a serious acquisition problem. The (un)availability of AE in a given language or construction is not apparent from

[2]But see also Duguine (2014) for examples of grammatical argument ellipsis in Spanish.

child-directed speech (e.g. Sugisaki 2009, Ohtaki 2014). How can a child learn whether or not null arguments in their language are the result of AE? The (un)availability of AE must be predictable *solely* from independent properties of the language that are observable to the child. Given this Poverty of the Stimulus problem, the majority of work on AE has thus been concerned with identifying the observable property (or properties) that determines the (un)availability of AE in a given language or construction.

Note, furthermore, that (un)availability of AE is not simply a language-level parameter. For instance, Turkish null objects may be elided arguments (6), but Turkish null subjects cannot be (7). The Turkish data here comes from Şener and Takahashi (2010)—hereafter, S&T.

(6) **Turkish objects allow argument ellipsis:** (S&T:331)

a. Can [***pro* anne-si**]-ni eleştir-di-∅.
Can his mother-3SG-ACC criticize-PAST-3SG
'Can$_i$ criticized **his$_i$ mother**.'

b. Mete-yse ***e*** öv-dü-∅.
Mete-however praise-PAST-3SG
(i) 'But Mete praised **Can's mother**.' strict ***e*** = 'her'
(ii) 'But Mete$_j$ praised **his$_j$ mother**.' sloppy ***e*** = 'his$_j$ mother'

(7) **Turkish subjects do not allow argument ellipsis:** (S&T:332)

a. Can [[***pro* oğl-u**] İngilizce öğren-iyor-∅ diye] bil-iyor-∅.
Can his son-3SG English learn-PRES-3SG that know-PRES-3SG
'Can$_i$ knows [that **his$_i$ son** learns English].'

b. Mete-yse [***e*** Fransızsa öğren-iyor-∅ diye] bil-iyor-∅.
Mete-however French learn-PRES-3SG that know-PRES-3SG
(i) 'But Mete knows [that **Can's son** learns French].' strict ***e*** = 'he'
(ii) *'But Mete$_j$ knows [that **his$_j$ son** learns French].' *sloppy ***e*** = 'his$_j$ son'

Like Japanese subjects and objects, Turkish null objects permit sloppy interpretations for possessors: the null object in (6b) can refer to Can's mother *or* Mete's mother. In contrast, Turkish *subjects* behave like null arguments in Spanish in not permitting sloppy interpretations for possessors. The null subject in (7b) can only refer to Can's son and cannot refer to Mete's son.

In recent literature, ϕ-agreement has been identified as an observable property for learners that is correlated with the (un)availability of AE, as in (8). Importantly, it is a position-specific parameter, allowing for intra-linguistic variability in the interpretation of null arguments.

(8) **The Anti-Agreement Hypothesis for AE:** (Saito, 2007, Şener and Takahashi, 2010)
Argument ellipsis is possible *if and only* if the argument is not ϕ-agreed with.

Under (8), subject AE is not possible in Turkish because Turkish has subject ϕ-agreement (7). However, object AE is possible because there is no object ϕ-agreement (6). Moreover, as Japanese generally has *no ϕ-agreement*, AE is expected to be possible in both subject and object position; this expectation is confirmed through examples such as (1). Finally, we note that proponents of this approach must posit *null* object ϕ-agreement, in addition to overt subject agreement, in languages such as Spanish, to make sense of the unavailability of AE in either position in light of (8).[3]

The Anti-Agreement Hypothesis makes (at least) two additional predictions: (i) arguments that are exceptionally not Agreed with should *permit* AE, and (ii) arguments that are exceptionally

Agreed with should *disallow* AE. Şener and Takahashi (2010) (S&T) present compelling examples of environments that confirm these predictions, from Turkish and Japanese. In contrast to matrix and CP embedded clauses, Turkish ECM constructions do not display subject ϕ-agreement. The form of the embedded verb 'start' is unaffected by its subject's ϕ-features (9). As such, the Anti-Agreement Hypothesis (8) predicts that ECM subjects should allow AE. This prediction is borne out through the availability of sloppy readings in (10):[4]

(9) **Turkish does not agree with ECM subjects:** (S&T:336)
Pelin [ben-i/sen-i/on-u lise-ye başla-yacak] san-ıyor-∅.
Pelin I/you/(s)he-ACC high.school-DAT start-FUT think-PRES-3SG
'Pelin thinks [that I/you/(s)he will start high school].'

(10) **Turkish ECM subjects allow argument ellipsis:** (S&T:336)
a. Pelin [[***pro* yegen-i**]-ni lise-ye başla-yacak] san-ıyor-∅.
Pelin her niece-3SG-ACC high-school-DAT start-FUT think-PRES-3SG
'Pelin$_i$ thinks **her$_i$ niece** will start high school.'
b. Suzan-sa [***e*** ilkokul-a başla-yacak] san-ıyor-∅.
Susan-however grade.school-DAT start-FUT think-PRES-3SG
(i) 'But Susan thinks that **Pelin's niece** will start grade school.' strict ***e*** = 'him'
(ii) 'But Susan$_j$ thinks that **her$_j$ niece** will start g.s.' sloppy ***e*** = 'her$_j$ niece'

Unlike the null subject of a CP embedded clause (7), the null subject of an ECM clause in Turkish permits a sloppy interpretation for its possessor. The referent of the embedded clause in (10b) is ambiguous, referring either to Pelin's niece or to Susan's niece. This exceptional availability of subject AE, correlating with the lack of agreement with this subject, lends credence to the Anti-Agreement Hypothesis.

Conversely, S&T also consider environments with exceptional subject ϕ-agreement in Japanese. Honorific agreement morphology indicates that the subject is deserving of deference. For some Japanese speakers, as predicted by (8), null subjects cross-referenced by honorific agreement cannot be elided arguments, again diagnosed by sloppy possessor readings:

(11) **Honorific agreement blocks AE for some speakers:** (S&T:336–337)
a. Taroo-wa [**zibun-no sensei**-ga eigo-o o-hanasi-ninaru to] omotteiru.
Taroo-TOP self-GEN teacher-NOM English-ACC HON-speak-HON that thinks
'Taro$_i$ thinks that **his$_i$ own teacher** speaks English.'
b. Hanako-wa [***e*** furansugo-o o-hanasi-ninaru to] omotteiru.
Hanako-TOP French-ACC HON-speak-HON that thinks
(i) 'Hanako thinks that **Taro's teacher** speaks French.' strict: ***e*** = 'he/she'
(ii) $^{\%}$'H$_j$ thinks that **her$_j$ own teacher** speaks F.' $^{\%}$sloppy: ***e*** = 'her$_j$ own teacher'

Unlike null arguments in canonical embedded subject positions that permit sloppy interpretations for their possessors (1), embedded subjects cross-referenced by subject honorific agreement cannot

[3]If ϕ-agreement is a prerequisite for clitic-doubling (e.g. Roberts, 2010, Harizanov, 2014, Kramer, 2014), the presence of overt clitic-doubling in Spanish may indicate to the language learner that null object ϕ-agreement is generally involved in the language.

[4]But see discussion of Turkish judgments in Simpson, Choudhury, and Menon (2013), which suggests that these facts may not be as robust as originally reported by S&T.

receive this sloppy interpretation for some speakers. In (11b), the null argument must be Taro's teacher and not Hanako's teacher. The exceptional unavailability of AE just in case the subject is Agreed with likewise lends credence to the Anti-Agreement Hypothesis.

2.2 Argument ellipsis in Kaqchikel

Otaki et al. (2013) identify Mayan languages as a valuable testing ground for the Anti-Agreement Hypothesis, as they have both subject and object ϕ-agreement and null arguments. Mayan languages exhibit an ergative-absolutive pattern of ϕ-agreement on verbs. Set A markers cross-reference transitive subjects and Set B markers cross-reference intransitive subjects and transitive objects. Set A markers are also used for possessor agreement, as we will see. Subject and object ϕ-agreement and the availability of null arguments in both subject and object positions are illustrated in (12).

(12) **Agreement and null arguments in Kaqchikel:** (Otaki et al., 2013:158)

a. X-**e**-**ru**-tïj nimamaixku' a Xwan, iwir.
PRF-**B3PL**-**A3SG**-eat apple CL Juan yesterday
'Juan ate apples yesterday.'

b. Po ***e*** man x-**∅**-**u**-tïj ta ***e*** wakami.
but NEG PRF-**B3SG**-**A3SG**-eat NEG now
'But (he) didn't eat (it) today.'

Otaki et al. report that both subject and object position in Kaqchikel disallow AE, as diagnosed by the lack of sloppy readings for possessors:

(13) **Kaqchikel subjects disallow AE:** (based on Otaki et al., 2013:160)

a. Ri a Xwan n-∅-u-nojij
the CL Juan IMPF-B3SG-A3SG-think
[chi **ri** **ru-mes** tikirel y-e-ru-chäp ch'oy].
that the A3sg-cat can IMPF-B3PL-A3SG-catch mice
'Juan$_i$ thinks [that **his$_i$** **cat** can catch mice].'

b. Chuqa' ri a Kalux n-∅-u-nojij
also the CL Carlos IMPF-B3SG-A3SG-think
[chi ***e*** tikirel y-e-ru-chäp ch'oy].
that can IMPF-B3PL-A3SG-catch mice
(i) 'Carlos also thinks [that **Juan's cat** can catch mice].' strict: ***e*** = 'it'
(ii) *'Carlos$_j$ also thinks [that **his$_j$** **cat** can catch mice].' *sloppy: ***e*** = 'his$_j$ cat'

(14) **Kaqchikel objects disallow AE:**

a. Ri a Xwan x-∅-u-kanoj **ri** **r-ak'wal**.
the CL Juan PRF-B3SG-A3SG-look.for the A3SG-child
'Juan looked for **his$_i$** **child**.'

b. Chuqa' ri a Karlux x-∅-u-kanoj ***e***.
also the CL Carlos PRF-B3SG-A3SG-look.for
(i) 'Carlos also looked for **Juan's child**.' strict: ***e*** = 'he/she'
(ii) *'Carlos$_j$ also looked for **his$_j$** **child**.' *sloppy: ***e*** = 'his$_j$ child'

The null embedded subject in (13b) is cross-referenced by ϕ-agreement and must be given a strict interpretation: it can refer to Juan's cat but not to Carlos's. Similarly, the matrix null object in (14b) is cross-referenced by ϕ-agreeement and must be given a strict interpretation: it can refer to Juan's child but not to Carlos's.

A second diagnostic for the (un)availability of AE is the interpretation of quantified noun phrases (Takahashi, 2008a,b). Consider the Japanese example in (15).

(15) **Quantificational null arguments in Japanese:** (Takahashi 2008a:398; 2008b:310)

a. Hanako-ga **taitei-no sensei**-o sonkeishiteiru.
Hanako-NOM most-GEN teacher-ACC respect
'Hanako respects most teachers.'

b. (Soshite) Taro-mo ***e*** sonkeishiteiru.
and Taro-also respect
(i) 'Taro also respects **the teachers that H. respects**.' referential: *e* = 'them'
(ii) 'Taro also respects **most teachers**.' quantificational: *e* = 'most teachers'

The null argument in (15b) can be understood as referring to the same set of teachers that verifies the antecedent quantifier *taitei-no sensei* 'most teachers' in (15a). This interpretation is called the "referential" reading, and is analogous to the strict reading for possessors. The null argument can also be understood as referring to a potentially *distinct* set of teachers. This second reading is called the "quantificational" reading, and is analogous to the sloppy reading of possessors.

Otaki et al. also show that Kaqchikel disallows quantificational readings of null arguments:

(16) **Kaqchikel null arguments disallow quantificational readings:** (Otaki et al., 2013:160)

a. Y-e-ru-kamelaj **oxi' tijonela'** ri a Xwan.
IMPF-B3PL-A3SG-respect three teacher the CL Juan
'Juan respects three teachers.'

b. A Kalux chuqa' n-∅-u-kamelaj ***e***.
CL Carlos also IMPF-B3SG-A3SG-respect
(i) 'Carlos also respects **the teachers that J. respects**.' referential: ***e*** = 'them'
(ii) *'Carlos also respects **three teachers**.' *quantificational: ***e*** = 'three teachers'

Like the sloppy reading of possessors for null arguments, the quantificational interpretation of QPs is disallowed in Kaqchikel. The null object in (16b) must refer to the same three teachers that Juan respects in the antecedent clause. Otaki et al. take this data to support the Anti-Agreement Hypothesis (8): Kaqchikel shows ϕ-agreement with both subjects and objects, and therefore neither subjects nor objects allow AE.

3 Argument ellipsis in Agent Focus

At first blush, Kaqchikel appears to support the Anti-Agreement Hypothesis for the (un)availability of AE, as noted by Otaki et al. (2013). However, further inspection shows that the unavailability of AE in Kaqchikel forms an argument *against* the Anti-Agreement Hypothesis. As noted in §2.1, the Anti-Agreement Hypothesis predicts that just in case a null argument is exceptionally not Agreed with, it will allow interpretation as a full, independent noun phrase, which is unpronounced as it has been elided. (Recall the case of Turkish ECM subjects in (10) above.) By this logic, if a

null argument in Kaqchikel is not Agreed with, we expect it to permit sloppy interpretations and quantificational readings. In this paper, we consider AE in *Agent Focus* clauses, where at most only one argument can be Agreed with.

Agent Focus describes a particular morphological variant of transitive verbs which is used when their Agent is $\overline{\text{A}}$-extracted. See e.g. Stiebels (2006), Preminger (2011, 2014), Erlewine (2016), and Heaton, Deen, and O'Grady (2016) for motivation for this basic characterization and discussion of its exceptions. Here we use subject cleft focus for our Agent Focus examples.

Agent Focus verbs take a dedicated suffix, glossed AF, and have only a Set B agreement slot. In languages of the K'ichean branch, including Kaqchikel, this Set B marker agrees with one argument, descriptively following the salience hierarchy in (17) (Stiebels, 2006). Preminger (2011, 2014) describes this as a process of omnivorous agreement, following Nevins (2011).

(17) **Agent Focus Salience Hierarchy:** (Stiebels, 2006:526)
1st/2nd (local) > 3rd plural > 3rd singular

Examples (18) and (19) below illustrate the behavior of omnivorous agreement in accordance with the Salience Hierarchy in (17):

(18) a. Ja rje' x-{**e/*∅**}-tz'et-ö rja'.
FOC 3PL PRF-{**B3PL/*B3SG**}-see-AF 3SG
'It was THEM who saw him.'
b. Ja rja' x-{**e/*∅**}-tz'et-ö rje'.
FOC 3SG PRF-{**B3PL/*B3SG**}-see-AF 3PL
'It was HIM who saw them.' (Preminger, 2014:20)

In (18), the 3rd plural argument controls agreement over the 3rd singular argument; the 3rd plural Set B marker *-e-* must be realized on the verb. The 3rd singular marker *-∅-* is ungrammatical. This requirement applies regardless of the grammatical function of the plural argument: In (18a), *rje'* 'them' serves as the subject, whereas (18b), it serves as the object. Now consider the interaction of a local person argument, 1st singular *yïn*, and the 3rd plural pronoun *rje'*:

(19) a. Ja yïn x-{**i/*e**}-tz'et-ö rje'.
FOC 1SG PRF-{**B1SG/*B3PL**}-see-AF 3PL
'It was ME who saw them.'
b. Ja rje' x-{**i/*e**}-tz'et-ö yïn.
FOC 3PL PRF-{**B1SG/*B3PL**}-see-AF 1SG
'It was THEM who saw me.'

In (19) it is the 1st person argument that controls agreement on the verb. The 1st singular Set B marker *-i-* must be realized on the verb, and the presence of the 3rd plural *-e-* is ungrammatical, unlike in (18). Again, this requirement applies regardless of the grammatical function of the 1st person argument. In (19a), 1st singular *yïn* serves as the subject. In (19b), it serves as the object.

The crucial import of the Agent Focus construction in the evaluation of the Anti-Agreement Hypothesis for AE is that there is only one ϕ-probe in Agent Focus verbs. The argument that is higher on the Salience Hierarchy (17) is ϕ-agreed with; the other argument is not ϕ-agreed with. Importantly, Preminger (2011, 2014) argues that there is no *covert* Agree operation with the other core argument not cross-referenced by Set B morphology (Preminger, 2011, 2014). Evidence

comes from what Preminger calls the Agent Focus Person Restriction: In Agent Focus clauses, at most one of the two core arguments can be 1st or 2nd (local) person. If *both* arguments are 1st or 2nd person, the Agent Focus verb is ungrammatical (20a). A non-Agent Focus verb that expresses overt agreement with both arguments must then be used, as in (20b).

(20) **Agent Focus is not possible with two local person arguments:**

a. *Ja yïn x-{**i/at**}-tz'et-ö rat.
FOC 1SG PRF-{**B1SG/B2SG**}-see-AF 2SG

b. Ja yïn x-**at**-**in**-tz'ët rat.
FOC 1SG PRF-**B2SG**-**A1SG**-see 2SG
'It was ME that saw you.'

The data in (20) shows that 1st and 2nd person arguments must be Agreed with—a requirement familiar from other languages; see e.g. Béjar and Rezac (2003). The ungrammaticality of (20a) indicates that there is only one ϕ-probe in Agent Focus clauses. If there were a second ϕ-probe in Agent Focus clauses whose activity is simply not reflected overtly, (20a) would be grammatical, contrary to fact.

Now recall that the Anti-Agreement Hypothesis predicts the availability of AE to tightly correlate with the lack of ϕ-agreement. In particular, arguments that are *exceptionally not Agreed with* should *exceptionally permit AE*, as S&T showed for Turkish ECM subjects. Therefore, in Kaqchikel Agent Focus constructions, just in case a null argument in an Agent Focus construction is not Agreed with—as may happen, descriptively, when lower on the Salience Hierarchy in (17)—it may behave as an elided argument. However, this prediction is not borne out.

First, consider the unavailability of sloppy interpretations for possessors:

(21) A: Ja [ri ma Kab'la i ri ya Ixtoj] x-**e**-kano-n **ri k-ak'wal**.
FOC the CL Kab'la and the CL Ixtoj PRF-B3PL-look.for-AF the A3PL-child
'It's [KAB'LA AND IXTOJ]$_i$ that looked for **their$_i$ child**.'

B: Manäq, ja [ri ma Q'anil i ri ya Nikte]$_j$ x-**e**-kano-n ***e***.
no FOC the CL Q'anil and the CL Nikte PRF-B3PL-look.for-AF
(i) 'No, it's [Q. AND N.] that looked for **Kab'la and Ixtoj's child**.' strict
(ii) *'No, it's [Q. AND N.]$_j$ that looked for **their$_j$ child**.' *sloppy

In (21A), the subject is plural, triggering 3rd plural Set B agreement, *-e-*. The overt 3rd singular object is not Agreed with (cf. example (18)). By extension, in (21B), the Set B probe Agrees with the plural subject 'Q'anil and Nikte,' and the null object is not Agreed with at all. The Anti-Agreement Hypothesis predicts that a sloppy interpretation for the null object should be available. However, this is not the case. The null object must be understood as 'Kab'la and Ixtoj's child.' It cannot mean 'Q'anil and Nikte's child'; there is no sloppy interpretation available for the possessor. This result runs contrary to the predictions of the Anti-Agreement Hypothesis.[5]

[5]Henderson and Coon (to appear) report that Kaqchikel displays an 'extended reflexive' effect (see also Mondloch 1981, Coon and Henderson 2011 on K'ichee'), whereby the presence of AF morphology precludes co-reference between a subject noun phrase and an object possessor. We have found this effect to be subject to inter-speaker variation. For those speakers who display the extended reflexive pattern, the strict reading in (21) cannot be achieved on independent grounds. However, for those speakers who lack such an effect, the data in (21) is informative. The strict reading is available for the antecedent and null noun phrase, but the sloppy reading is not. Moreover, for no speaker

Next, we test the availability of quantificational interpretations for null arguments that are not Agreed with:

(22) A: Ja rïn x-**in**-kano-n **oxi' tijonel-a'**.
FOC 1sg PRF-B1SG-look.for-AF three teacher-PL
'It's ME that looked for **three teachers**.'
B: Manäq, ja rïn x-**in**-kano-n ***e***.
no FOC 1sg PRF-B1SG-look.for-AF
(i) 'No, it's ME that looked for **those teachers**.' referential: ***e*** = 'them'
(ii) *'No, it's ME that looked for **three teachers**.' quant.: ***e*** = 'three teachers'

In (22A), the subject is 1st singular and therefore cross-referenced by the 1st singular Set B agreement morpheme *-in-*. The overt 3rd person plural object is not Agreed with (cf. example (19)). By extension, in (22B), the Set B probe agrees with the 1st singular subject *rïn* and the null object is not Agreed with at all. As the null object is not Agreed with, the Anti-Agreement Hypothesis predicts that a quantificational interpretation should be available. However, this is not the case. The null object must be understood as the same set of three teachers that Speaker A looked for. It cannot refer to a different set of three teachers, as would be predicted to be possible under AE. This result, too, runs contrary to the predictions of the Anti-Agreement Hypothesis.

In light of the data in (21) and (22), we conclude that the lack of AE in Kaqchikel does not, in fact, correlate with ϕ-agreement (*contra* Otaki et al., 2013). The interpretation of null arguments in Kaqchikel Agent Focus constructions demonstrates that the presence or absence of ϕ-agreement for a particular argument cannot be the sole predictor of the (un)availability of AE.

4 Failure to Agree and the Anti-Agreement Hypothesis

Kaqchikel also provides a conceptual argument against the *logic* of the Anti-Agreement Hypothesis. Saito (2007) and Takahashi (2013) both propose that the absence of ϕ-agreement and the availability of AE are causally linked. Consider the PF-Deletion account proposed by Takahashi: Ellipsis occurs *during the syntactic derivation* (e.g. Aelbrecht, 2010), crucially before ϕ-agreement occurs. Therefore, the ***e*** argument is not visible to the ϕ-probe. As such, ϕ-agreement with ***e*** will fail. Takahashi (2013) adopts the position that ϕ-agreement probes will crash if they do not successfully Agree (Chomsky, 2000, 2001). Therefore, only argument positions that are not targeted by any ϕ-probe permit AE. (See Saito (2007) for a derivation of the Anti-Agreement Hypothesis under an LF-Copying approach to argument ellipsis. Under that proposal, in AE, the ***e*** position copies its antecedent noun phrase at LF. In the narrow syntax, there is nothing in the ***e*** position. As such, ϕ-agreement with ***e*** will fail. The basic logic is the same; argument ellipsis bleeds Agree with the argument but Agree must succeed for the derivation to converge.)

But recall that in K'ichean Agent Focus, the Set B marker follows a salience hierarchy (17), repeated here in (23). Restated in terms of a ϕ-probe, Preminger (2011, 2014) proposes the derivational procedure in (24).[6]

should the quantificational interpretation of numerically modified noun phrases, discussed in (22), be independently unavailable.

[6]See also Deal (2015) for additional motivation for distinguishing between probing (identifying possible targets, if any) and Agree (the transfer of feature values).

(23) **Agent Focus Salience Hierarchy:** =(17)
1st/2nd > 3rd plural > 3rd singular

(24) **The logic of K'ichean Set B agreement:**

a. Probe for a *1st or 2nd person* DP (not Agreed with Set A). If found, Agree. If not...
b. Probe for a *plural* DP (not Agreed with Set A). If found, Agree. If not...
c. Set B is default/null = ∅

The elsewhere case in (24c) can be thought of as natural because 3rd-singular DPs do not have any ϕ-features (e.g. Harley and Ritter, 2002, McGinnis, 2005). We direct the reader to Preminger's work for more details and argumentation.

The result of (24) is that if both arguments are 3rd person singular, *the Set B probe will not Agree with anything*. This result is not, however, ungrammatical. It is a licit construction with no overt Set B morphology:

(25) Ja ri a Xwan x-∅-kano-n ri r-ak'wal.
FOC the CL Juan PRF-B(DEFAULT)-look.for-AF the A3SG-child
'It's JUAN that looked for his child.'

The grammaticality of (25) shows that ϕ-agreement probes can fail to Agree, without triggering ungrammaticality.

Returning to the Anti-Agreement Hypothesis (8), we find ourselves at an impasse. Saito's logic for the Anti-Agreement Hypothesis assumes that if ϕ-agreement probes do not successfully Agree, the derivations crashes. However, Kaqchikel Agent Focus—and phenomena in other languages, see Preminger (2011, 2014)—shows that the failure of Agree does not lead to a crash (25). Like the new empirical arguments from §3, this too undermines the Anti-Agreement Hypothesis. As ϕ-probes need not successfully Agree to yield well-formed derivations, the absence of a licit target for ϕ-probing cannot be used to explain the unavailability of AE in languages / constructions with ϕ-agreement.

5 Conclusion and Extensions: Prospects for alternatives to the Anti-Agreement Hypothesis

Kaqchikel null subjects and objects can not be derived by AE; they lack sloppy and quantificational readings. This observation has been taken to support the Anti-Agreement Hypothesis for the availability of AE (Otaki et al., 2013). However, further research into the interpretation of null arguments in Kaqchikel reveals a pattern of behavior that is, in fact, problematic for the Anti-Agreement Hypothesis. We showed that arguments that are not Agreed with in the Kaqchikel Agent Focus construction similarly disallow interpretation as full noun phrases via AE. This runs counter to the prediction of the Anti-Agreement Hypothesis (cf. exceptional availability of AE for non-Agreeing subjects in Turkish (10)). Furthermore, the Person Restrictions in K'ichean Agent Focus shows that (a) third-person DPs do not need to be ϕ-agreed with and (b) the Set B ϕ-probe will not crash even if it does not find a goal. This undermines the *causal* relationship between the presence or absence of ϕ-agreement in a given language / construction and the (un)availability of AE in that position laid out by Saito (2007) and Takahashi (2013).

Of course, there is no denying the strong *correlation* between the presence or absence of ϕ-agreement in a given language / construction and the (un)availability of AE. Therefore, an alternative explanation is needed for the availability of AE and concomitant unavailability of ϕ-agreement in languages like Turkish and Japanese. In the remainder of this conclusion, we briefly discuss alternative accounts for the distribution of AE and how the Kaqchikel facts bear on these analyses, as well as some directions for future research.

As noted above, the possibility of null arguments through AE poses a Poverty of the Stimulus problem. As the availability of AE varies both across and within languages with null arguments, a reliable, independent, cross-linguistic predictor for its availability must be available. The presence / absence of ϕ-agreement is only one of a number of predictors that has been suggested in the literature, and Kaqchikel can bear on the viability of some alternatives to the Anti-Agreement Hypothesis. We consider these alternatives now.

First, works such as Oku (1998a), Saito (2004), Takahashi (2008b) have hypothesized that the availability of AE is linked to free word order. The motivating observation is that languages like Japanese have (relatively) free word order and permit AE, whereas languages like Spanish have (relatively) strict word order and disallow it.[7] This hypothesis is challenged by Kaqchikel, which has some free word order variations (e.g. England, 1991, Broadwell, 2000, Otaki et al., 2013):

(26) **Some word order variations in Kaqchikel:** (Broadwell, 2000:2)

a. X-∅-r-oqotaj ri tz'i' ri me's.
PRF-B3SG-A3SG-chase the dog the cat
(i) 'The dog chased the cat.' (VSO)
(ii) 'The cat chased the dog.' (VOS)

b. Ri tz'i' x-∅-u-b'a ri me's.
the dog PRF-B3SG-A3SG-bite the cat
'The dog bit the cat.' (SVO)

As seen in (26a), verb-initial strings—at least with the right combination of arguments, namely 3rd person singular non-human—are ambiguous between a VOS and VSO interpretation. Similarly, in addition to verb-inital word order, SVO is also a commonly attested word order pattern (26b) (see also Clemens, 2013). The data in (26) suggests that Kaqchikel does not have a very rigid word order. Nevertheless, it does not permit AE, contrary to the predictions of analyses that tie the availability of AE to word order freedom.

Second, the availability of AE has been linked to case morphology (Neeleman and Szendrői, 2007, Otaki, 2012, Ohtaki, 2014). Languages like Japanese have non-fusional case morphology and permit AE. Languages like Spanish have fusional case morphology and disallow it.[8] This account, too, is challenged by Kaqchikel, as Kaqchikel has no case morphology.

[7]The putative connection between AE and word order has been explained as follows: Free word order languages allow selectional requirements to be satisfied at LF. In these languages, argument positions can be empty in overt syntax and filled by LF-copying. It is precisely this LF-copying that yields AE. In languages with strict word order, selectional requirements must be satisfied in the narrow syntax. If a null argument is to satisfy a selectional requirement in syntax it must be *pro*, making AE underivable.

[8]This putative connection has been explained as follows: K^0, the locus of case morphology, triggers ellipsis of its complement. If K^0 must fuse to its complement for exponence, ellipsis will render the case morpheme without a host, triggering ungrammaticality. If K^0 is non-fusional, no ungrammaticality will arise under AE.

(27) **No case morphology in Kaqchikel:** (Preminger, 2014:16)

a. Rat x-∅-aw-ax-aj ri achin.
2SG PRF-B3SG-A2SG-hear-ACT the man
'You heard the man.'

b. Ri achin x-a-r-ax-aj rat.
the man PRF-B2SG-A3SG-hear-ACT 2SG
'The man heard you.'

c. Ri achin x-∅-uk'lun.
the man PRF-B3SG-arrive
'The man arrived.'

d. Rat x-at-uk'lun.
2SG PRF-B2SG-arrive
'You arrived.'

Both pronouns and R-expressions are realized identically when they serve as subjects or objects of transitive clauses (27a,b). Furthermore, neither argument type shows a distinct form as the subject of an intransitive clause (27c,d). If there is no case morphology to be exponed, it is expected that, like non-fusional case morphology, AE should be possible, contrary to fact.

Third and finally, the availability of AE has been connected to the NP/DP distinction in argument size (see e.g. Tomioka, 2003, 2014, Cheng, 2013, Bošković, 2016). The idea here is that languages like Japanese permit NP arguments and allow for AE, whereas languages like Spanish require DP arguments and disallow AE. In brief, this putative connection has been explained as follows: only elements of type $\langle e,t\rangle$—e.g. VP and NP but not DP—can undergo ellipsis. Only those languages / constructions which permit NP-arguments allow AE. Those languages which require null arguments to be DPs will not permit AE.

Unlike the previous alternatives discussed above, this account has the potential to explain the full range of data regarding the interpretation of null arguments in Kaqchikel and other languages considered above. We propose that in Kaqchikel, all nominal arguments (modulo exceptions below) must be full DPs. The availability of the definite determiner *ri* in both subject and object positions reinforces this conclusion for the language learner. In contrast, we may propose that languages such as Turkish and Japanese allow both NP and DP arguments (with no visible difference), but with the assumption that ϕ-agreement ensures the projection of the DP layer. This system can accurately predict the across-the-board unavailability of AE in Kaqchikel, as well as the (un)availability of AE in Turkish and Japanese and their notable exceptions (Şener and Takahashi, 2010; see §2.1).

While the Kaqchikel data is thus consistent with accounts that tie the availability of AE in a given language to the availability of NP arguments, more work is needed to confirm that such an account is indeed correct for Kaqchikel across a wider range of constructions, and more generally for other null argument languages. Within Kaqchikel, it would be expected that environments in which NP-arguments can be generated should permit AE. Such environments may include objects of the incorporation antipassive (García Matzar and Rodríguez Guaján, 1997, Ajsivinac Sian and Henderson, 2011, Heaton, 2016; see also, e.g. Coon, 2010 on Ch'ol VOS word order) and *-oj* nominalizations (Imanishi, 2014), which disallow full DP arguments. More research is necessary to investigate the behavior of null arguments in these environments.

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