

# Agreement in Kichean and Zulu: *Filtration vs. Strict Generativity*

Omer Preminger  
MIT/Harvard, February 2012

---

## 0. Prologue

THE BIG QUESTION:

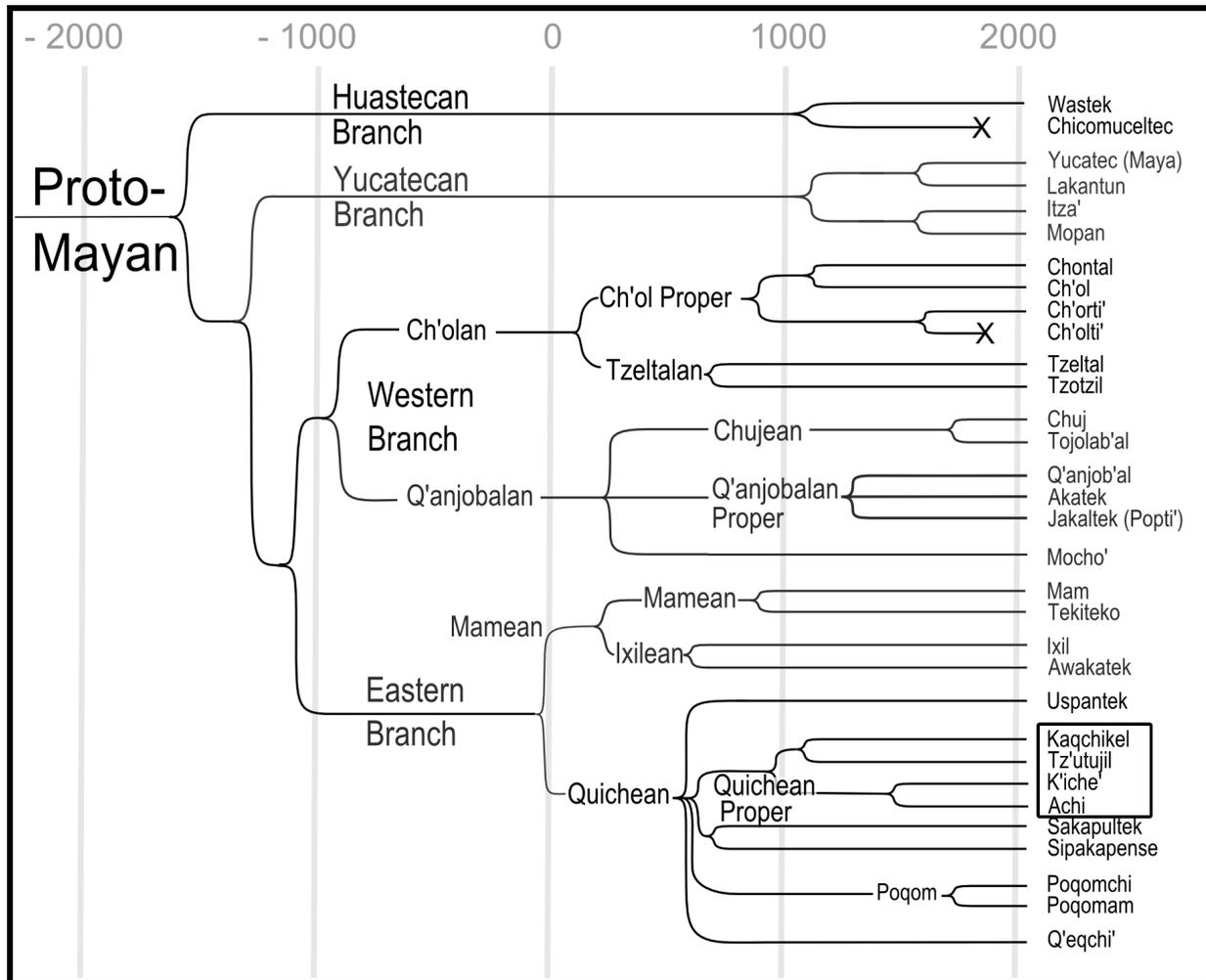
- How does grammar select the subset of well-formed/grammatical/acceptable utterances from among the set of all possible utterances?
  - APPROACH #1:  
the grammar is able to generate all manner of structures, both well-formed and ill-formed; a set of late-applying filters serve to “separate the wheat from the chaff”
    - we could refer to these filters, for example, as *interface conditions*CALL THIS: *Filtration*.
  - APPROACH #2:  
what the grammar provides is a ‘recipe’ that is guaranteed (modulo the particular lexical items chosen) to produce a grammatical utterance
    - in other words, the sequence of operations applicable at every stage of the derivation always generates a well-formed structure in the end
    - ill-formedness arises only when:
      - (i) an unavailable operation is applied anyway; or
      - (ii) an obligatory operation is not appliedCALL THIS: *Strict Generativity*.
- Historically, the debate between *Filtration* and *Strict Generativity* has been waged mostly on conceptual grounds (e.g. *Strict Generativity* is more computationally efficient, *Filtration* can be interface-driven) ...
  - see also the “Global Rules” debate of Lakoff (1970, 1972) and Baker & Brame (1972); and more recently, Frampton & Gutmann (2002, 2006)
  - (as well as the closely related debate between “representationalism” and “derivationalism”; Brody 1995, Hornstein 1998, *a.o.*)
  - ...with *Filtration* usually winning out (e.g. Chomsky & Lasnik 1977, Chomsky 2000 *et seq.*)
- **TODAY: An empirical argument in favor of *Strict Generativity* in accounting for the obligatory nature of agreement**

---

\*Thanks to Judith Aissen, Karlos Arregi, Rajesh Bhatt, Lauren Eby Clemens, Jessica Coon, Roberta D’Alessandro, Marcel Den Dikken, Robert Henderson, Sabine Iatridou, Andrew Nevins, David Pesetsky, Maria Polinsky, Milan Rezac, and Norvin Richards, for comments, discussions, and suggestions. Their mention should of course not be taken as an endorsement of the views espoused here. Special thanks to Ana López de Mateo, for Kaqchikel data and judgments; and to Claire Halpert, for generously sharing her results from Zulu with me. All errors are my own.

THE EMPIRICAL DOMAIN FOR TODAY'S TALK:  $\varphi$ -agreement in Kichean

- **Kichean**: a branch of Mayan languages spoken in Guatemala
  - includes the languages Kaqchikel, K'ichee', Tz'utujil, and Achi'
  - approx. 2.8 million speakers in total<sup>1</sup>



Some terminological housekeeping —

- I use the term  $\varphi$ -agreement to refer to **morpho-phonologically overt co-variance in  $\varphi$ -features between a predicate, or tense/aspect/mood marker, and an argument**
  - where  $\varphi$ -features refers to the categories {*person, number, gender/noun-class (...)*}

<sup>1</sup>Campbell & Kaufman 1985; <[http://www.ethnologue.com/show\\_family.asp?subid=1227-16](http://www.ethnologue.com/show_family.asp?subid=1227-16)> (retrieved May 30th, 2011); <[http://commons.wikimedia.org/wiki/File:Mayan\\_Language\\_Tree\\_in\\_colour.png](http://commons.wikimedia.org/wiki/File:Mayan_Language_Tree_in_colour.png)> (retrieved January 26th, 2012).

A BIT OF BACKGROUND: “UNINTERPRETABLE”  $\varphi$ -FEATURES —  
Chomsky’s (2000, 2001) *Filtration* account for the obligatoriness of  $\varphi$ -agreement

- (i) finite verbs carry “uninterpretable”  $\varphi$ -features (originating on finite T<sup>0</sup>)
- (ii) these “uninterpretable”  $\varphi$ -features cannot be part of a well-formed, end-of-the-derivation structure
  - they must be checked, deleted, or turned into “interpretable”  $\varphi$ -features (varies by implementation) — or else the result is a “crash”, yielding ungrammaticality
- (iii) agreement between the finite verb and a nominal argument deletes/checks/etc. the “uninterpretable”  $\varphi$ -features on the finite verb
  - ⇒ agreement is obligatory because it eliminates representational elements that would otherwise give rise to ungrammaticality

LET’S CALL REPRESENTATIONAL ELEMENTS OF THIS SORT: ‘*derivational time-bombs*’

The important point for our current purposes:

Chomsky’s “uninterpretable”  $\varphi$ -features account is *Filtration* model par excellence.

.....

## 1. Outline

- $\varphi$ -agreement in Kichean
  - $\varphi$ -agreement in the Agent-Focus construction: The data
  - The traditional account: “salience” hierarchies/scales
  - A probe-goal account of  $\varphi$ -agreement in Kichean Agent-Focus
- What this all means for *Filtration* theories of  $\varphi$ -agreement
- The conjoint/disjoint distinction and the distribution of nominal argument in Zulu

## 2. $\varphi$ -agreement in Kichean

### (1) SOME BASELINE EXAMPLES OF VERBAL $\varphi$ -AGREEMENT IN KICHEAN

[All examples are in Kaqchikel and come from my own fieldwork, unless otherwise noted.]

- a. y’in x-**in**-uk’lun  
me PRFV-**1sg.ABS**-arrive  
‘I arrived.’
- b. rix y-**in**-**iw**-axa-j y’in  
y’all IMPF-**1sg.ABS**-**2pl.ERG**-hear-ACT me  
‘Y’all are hearing me.’

- $\varphi$ -agreement on the Kichean verb:  
separate markers for **ERG (transitive subj.)** and **ABS (transitive obj./intransitive subj.)**

We now turn to focalization in Kichean:

- (2) ja ri wuj x- $\phi$ -u-tz'et ri achin  
 FOC the book PRFV-3sg.ABS-3sg.ERG-see the man  
 'It was the book that the man saw.'

- Unlike (2) (which is an instance of focalizing an ABS argument), focalizing an ERG argument requires altering the verb form<sup>2</sup>

- and the most common way of doing so is by using the *Agent-Focus* suffix, as shown in (3):

- (3) AN EXAMPLE OF THE AGENT-FOCUS CONSTRUCTION  
 ja ri achin x- $\phi$ -tz'et-ö ri wuj  
 FOC the man PRFV-3sg.ABS-see-AF the book  
 'It was the man who saw the book.'<sup>3</sup>

*cf.:*

- (4) \* ja ri achin x- $\phi$ -u-tz'et ri wuj  
 FOC the man PRFV-3sg.ABS-3sg.ERG-see the book  
*Intended:* 'It was the man who saw the book.'

- in Kaqchikel, where most of the data in this talk comes from, the Agent-Focus suffix has two allomorphs: -ö and -n

.....

Properties of the Agent-Focus (henceforth, AF) construction:

- (i) while sometimes called the “focus antipassive”, AF is not an antipassive at all (Aissen 2011, Craig 1979, Smith-Stark 1978)

- both Agent and Patient surface in AF as full-fledged, non-oblique DPs
  - i.e., neither argument is “demoted” in AF

*cf.* actual obliques, which are realized in Kichean as possessors of relational nouns introduced by P<sup>0</sup>:

- (5) Juan x- $\phi$ -u-ya' ri wuj cha-w-a  
 Juan COM-3sg.ABS-3sg.ERG-give the book PREP-2sg.GEN-RN  
 'Juan gave the book to you(sg).'

*Nevertheless* —

- (ii) the verb in the AF construction carries only one agreement marker, taken from the “ABS series” (the morphemes that in regular transitives, co-vary with the object)

<sup>2</sup>The need for the Agent-Focus suffix in (3) (and the ungrammaticality of (4)) is a property known as “syntactic ergativity”—a ban against targeting ergative arguments for A-bar operations (*wh*-interrogatives, focalization, relativization, etc.)—which the Kichean languages share with many (but not all) other Mayan languages, as well as many (but not all) other ergative languages. The cause and nature of syntactic ergativity, while of great interest, is not the focus of this talk; see Weisser et al. (2012), Coon, Mateo Pedro & Preminger (2011), and Polinsky (2011), for competing approaches.

<sup>3</sup>Note that while clefts are used in the English glosses of examples like (2–3), the original Kichean sentences are decidedly mono-clausal; see below.

Given two non-oblique DPs, but only one agreement marker, how does the grammar choose which DP's  $\phi$ -features will be morphologically expressed on the AF verb?

*It turns out that in Kichean AF, the answer is more complicated than just "the subj." or "the obj."...*

## 2.1. $\phi$ -agreement in the Agent-Focus construction: The data

- (6)  $\{1,2\}sg > 3sg \Rightarrow \{1,2\}sg$   
 ja rat x-**at**/\* $\phi$ -axa-n ri achin  
 FOC you PRFV-2**sg**/\***3sg**-hear-AF the man  
 'It was you(sg.) that heard the man.'
- (7)  $3sg > \{1,2\}sg \Rightarrow \{1,2\}sg$   
 ja ri achin x-**at**/\* $\phi$ -axa-n rat  
 FOC the man PRFV-2**sg**/\***3sg**-hear-AF you  
 'It was the man that heard you(sg.)'
- (8)  $3pl > 3sg \Rightarrow 3pl$   
 ja rje' x-**e**/\* $\phi$ -tz'et-ö rja'  
 FOC them PRFV-3**pl**/\***3sg**-see-AF him  
 'It was them who saw him.'
- (9)  $3sg > 3pl \Rightarrow 3pl$   
 ja rja' x-**e**/\* $\phi$ -tz'et-ö rje'  
 FOC him PRFV-3**pl**/\***3sg**-see-AF them  
 'It was him who saw them.'
- (10)  $3pl > \{1,2\}sg \Rightarrow \{1,2\}sg$   
 a. ja rje' x-**i**-tz'et-ö yin  
 FOC them PRFV-1**sg**-see-AF me  
 'It was them who saw me.'  
 b. \* ja rje' x-**oj**/ $\phi$ /**e**-tz'et-ö yin  
 FOC them PRFV-1**pl**/**3sg**/**3pl**-see-AF me
- (11)  $\{1,2\}sg > 3pl \Rightarrow \{1,2\}sg$   
 a. ja yin x-**i**-tz'et-ö rje'  
 FOC me PRFV-1**sg**-see-AF them  
 'It was me who saw them.'  
 b. \* ja yin x-**oj**/ $\phi$ /**e**-tz'et-ö rje'  
 FOC me PRFV-1**pl**/**3sg**/**3pl**-see-AF them
- (12)  $3sg > \{1,2\}pl \Rightarrow \{1,2\}pl$   
 a. ja rja' x-**oj**-tz'et-ö röj  
 FOC him PRFV-1**pl**-see-AF us  
 'It was him who saw us.'  
 b. \* ja rja' x-**i**/ $\phi$ /**e**-tz'et-ö röj  
 FOC him PRFV-1**sg**/**3sg**/**3pl**-see-AF us
- (13)  $3pl > \{1,2\}pl \Rightarrow \{1,2\}pl$   
 ja rje' x-**oj**-tz'et-ö röj  
 FOC them PRFV-1**pl**-see-AF us  
 'It was them who saw us.'
- (14)  $\{1,2\}pl > 3pl \Rightarrow \{1,2\}pl$   
 ja röj x-**oj**-tz'et-ö rje'  
 FOC us PRFV-1**pl**-see-AF them  
 'It was us who saw them.'

- The remaining binding-theoretically combinations are simply out:

- (15)  $2nd > 1st \Rightarrow \mathbf{X}$  (in AF)  
 \* ja rat x-**in/at**/ $\phi$ -axa-n yin  
 FOC you(sg.) PRFV-1**sg**/**2sg**/**3sg**.**ABS**-hear-AF me  
 Intended: 'It was you(sg.) that heard me.'
- (16)  $1st > 2nd \Rightarrow \mathbf{X}$  (in AF)  
 \* ja yin x-**in/at**/ $\phi$ -axa-n rat  
 FOC me PRFV-1**sg**/**2sg**/**3sg**.**ABS**-hear-AF you(sg.)  
 Intended: 'It was me that heard you(sg.)'

(To express the intended meanings of examples like (15–16), speakers resort to constructions such as the *absolutive antipassive*, an intransitivizing construction proper.)

(17) AF PERSON RESTRICTION

In the Agent-Focus construction in Kichean, at most one of the two core arguments can be 1st/2nd-person.

[Davies & Sam-Colop 1990, Dayley 1978, Norman & Campbell 1978, Smith-Stark 1978]

- There is no counterpart to the *AF person restriction* in the domain of [number] (no “*AF plural restriction*”); two plurals can co-occur freely in AF:

(18) ja rje' x-**oj**-tz'et-ö röj  
 FOC them PRFV-**1pl.ABS**-see-AF us  
 ‘It was them who saw us.’

[=(13)]

- In an example like (18), we find only one agreement marker, corresponding to 1st-person plural
  - this, even though there exists a putative overt agreement morpheme (of the correct series, ABS) that would correspond to the 3rd-person plural Agent rje'
    - namely, -e- (cf. (8–9), above)
  - but \*x-**oj**-e(')-tz'et-ö and \*x-**e**(')-**oj**-tz'et-ö are both impossible forms

OUTLINE

- ☑  $\varphi$ -agreement in Kichean
  - ☑  $\varphi$ -agreement in the Agent-Focus construction: The data
    - ☐ The traditional account: “salience” hierarchies/scales
    - ☐ A probe-goal account of  $\varphi$ -agreement in Kichean Agent-Focus
  - ☐ What this all means for *Filtration* theories of  $\varphi$ -agreement
  - ☐ The conjoint/disjoint distinction and the distribution of nominal augment in Zulu

## 2.2. The traditional account: “salience” hierarchies/scales

- Descriptively, the choice of agreement target in AF can be said to follow a disjunctive hierarchy:

(19) 1st/2nd  $\gg$  3rd-plural ( $\gg$  3rd-singular)

[Dayley 1978, Mondloch 1981, Norman & Campbell 1978, Smith-Stark 1978]

- The scale in (19) has been taken by some to be a theoretical primitive
  - some have gone a step further, taking (19) to be a reflection of cognitive salience
    - e.g. Stiebels (2006)
      - see related work by Silverstein (1976), Wierzbicka (1980), Allen, Gardiner & Frantz (1984)
- Conceptual arguments aside, there are **empirical reasons to be skeptical of such an approach to these Kichean facts**

- (i) If cognitive salience is what's at issue, why would it surface nowhere else in the language but in the AF construction?
- the AF construction is characterized by a particularly rigid information structure (as its name, *Agent-Focus*, makes clear)
- ⇒ **why would such rigid information structure give rise to this flexibility of “salience” for agreement purposes, when regular transitives do not?**

- (ii) K'ichee' (a relative of Kaqchikel, which exhibits the same behavior under AF) provides further evidence militating against an account based on cognitive salience:

“[K'ichee'] has developed a 2nd person formal pronoun, which does not behave as a 2nd person with respect to the salience hierarchy, i.e. it does not outrank 3rd person.”  
2emStiebels (2006:526, fn. 13)

- ⇒ we have a dissociation between the formal properties of a given pronoun (in this case, *3rd-person*) and the cognitive properties of that pronoun (in this case, *2nd-person*) —  
— **and the formal properties win**
- the claim is not that there is no recourse for the cognitive approach, here (e.g. “speakers conceive of polite speech as if it were referring to an absent individual”);
  - the point is this: **the one differentiating prediction that an account based on cognitive salience could make in opposition to a formal account is not, in fact, borne out**

**NB:** Unlike (i)–(ii), issues (iii)–(iv) persist even if we abandon the view that (19) refers to cognitive salience per se, and view it as a purely formal device.

- (iii) Recall the *AF person restriction*, repeated here:

(20) In the Agent-Focus construction in Kichean, at most one of the two core arguments can be 1st/2nd-person. [=(17)]

- **there is nothing about a hierarchy like (19) that predicts that two arguments with high “salience” would not be able to co-occur**
- indeed, some languages and constructions that exhibit behavior that is superficially very similar to (19), do not have a restriction along the lines of (20)
  - cf. main verb agreement in Algonquian, for example

- (iv) Most importantly, this approach fails to capture an emergent generalization regarding the actual morpho-phonological forms of the agreement markers

- By its very nature, a salience scale/hierarchy is made to factor out the choice of agreement target; it is an algorithm designed to:
  - **take as its INPUT:**        **the inventory of arguments in a given clause**
  - **return as its OUTPUT:**   **which one will be targeted for  $\varphi$ -agreement**

- Crucially, it is not the case that  $\varphi$ -agreement in Kichean AF is a uniform process but for the choice of agreement target:

(21) 

	1sg	1pl	2sg	2pl	3sg	3pl	(Kaqchikel)
strong pronoun	yĩn	röj	rat	rix	rja'	rje'	
ABS agr.-marker	-i(n)-	-oj-	-a(t)-	-ix-	-φ-	-e-	

NOTE: the segment [j] is a voiceless fricative, not a glide

- 1st/2nd-person agreement markers (both sg. and pl.) are essentially truncated versions of the corresponding strong pronouns:

*agreement marker = strong pronoun – initial approximant*

- but this correspondence fails in the case of 3rd-singular/3rd-plural markers

⇒ **an approach that factors out the choice of agreement target from the actual agreement process cannot account for this diverging behavior**

OUTLINE

- ☑  $\varphi$ -agreement in Kichean
- ☑  $\varphi$ -agreement in the Agent-Focus construction: The data
- ☑ The traditional account: “salience” hierarchies/scales
- ☐ A probe-goal account of  $\varphi$ -agreement in Kichean Agent-Focus
- ☐ What this all means for *Filtration* theories of  $\varphi$ -agreement
- ☐ The conjoint/disjoint distinction and the distribution of nominal augment in Zulu

### 2.3. A probe-goal account of $\varphi$ -agreement in Kichean Agent-Focus

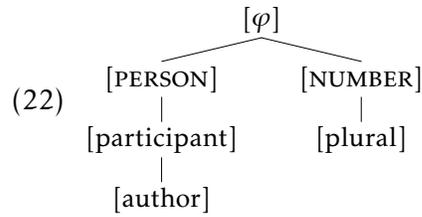
Ingredients: (all argued for independently of Kichean, or even Mayan in general)

- (i) probing for PERSON and NUMBER occurs in separate derivation steps  
(Anagnostopoulou 2003, Béjar 2003, Chomsky 2000, Laka 1993, Shlonsky 1989, Sigurðsson 1996, Taraldsen 1995, *a.o.*)
  - with PERSON probing first (*pace* Sigurðsson & Holmberg 2008)
- (ii) clitics are, quite literally, reduced pronouns  
(following Cardinaletti & Starke 1999)
- (iii) clitic-doubling is a parametrized reflex of a DP being probed by particular  $\varphi$ -probes  
(Béjar & Rezac 2003, Kramer 2011, *a.o.*)
  - in particular, whether probing of a DP by a head  $H^0$  results in clitic-doubling of that DP—or merely, in valuation—depends on EPP-like features of the head itself

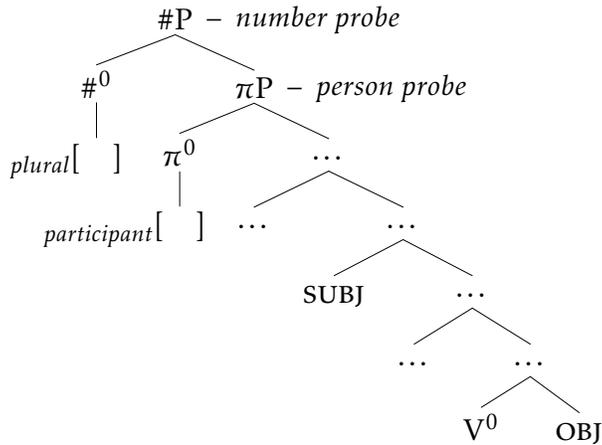
(iv) the space of  $\varphi$ -features is composed of privative features like [*participant*], [*author*], [*plural*] (Béjar & Rezac 2009, Harley & Ritter 2002, McGinnis 2005)

- singular noun-phrases are not specified for [*plural*] with a negative value (i.e., ‘-’); they simply lack that feature altogether
- similarly for [*participant*]: 1st/2nd-person pronouns carry this feature; all other noun-phrases simply lack it altogether

a somewhat simplified  $\varphi$ -feature geometry (Harley & Ritter 2002, McGinnis 2005):



(23) BASIC CLAUSE STRUCTURE IN KICHEAN AF

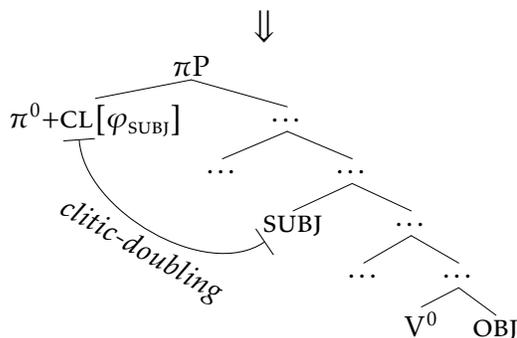
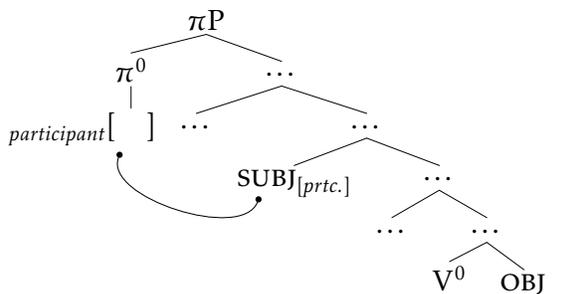


- If  $\pi^0$  seeks bearers of [participant], then by *Relativized Minimality* (Rizzi 1990), it follows that  $\pi^0$  will skip any DP not bearing that feature
  - just like a probe seeking bearers of [+wh] skips any DP not bearing [+wh]
  - this is not new observation, by any means; it is merely *Relativized Minimality* (Rizzi 1990, Frampton 1991) in action

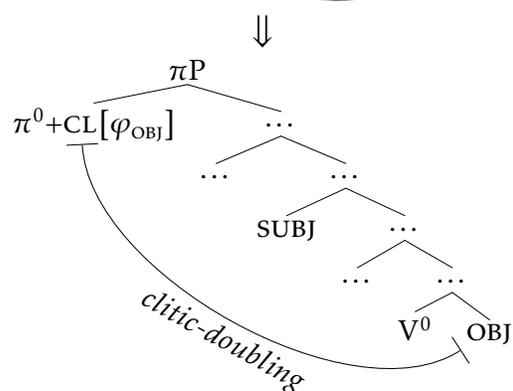
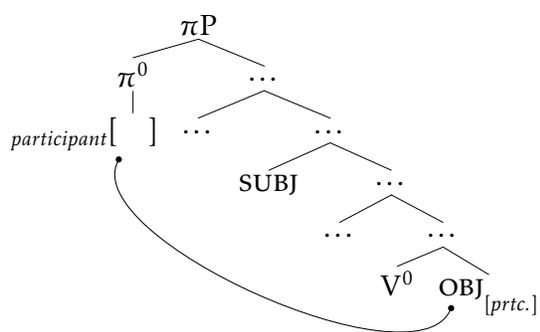
⇒ this probe ( $\pi^0$ ) will skip any 3rd-person nominals

- Now suppose  $\pi^0$  is parametrized to trigger clitic-doubling of whatever DP it probes (see Béjar & Rezac 2003, Kramer 2011, as well as (iii) above) —

(24) a. 1ST/2ND-PERSON SUBJECT,  
ANY OBJECT



b. 3RD-PERSON SUBJECT,  
1ST/2ND-PERSON OBJECT



⇒ Thus, when one of the core arguments is 1st/2nd-person, a clitic will be generated that matches that argument’s  $\varphi$ -features

• This is exactly what is attested (§2.2):

- recall that the 1st/2nd-person “agreement markers” are morpho-phonologically just truncated versions of the corresponding strong pronouns
- and clitics are literally reduced pronouns (Cardinaletti & Starke 1999)

.....

• Moreover, this approach is equipped to derive the *AF person restriction* (repeated in (25) below) as a theorem, given certain independently motivated assumptions

(25) In the Agent-Focus construction in Kichean, at most one of the two core arguments can be 1st/2nd-person. [=(17)]

• The independently motivated assumption at issue is Béjar & Rezac’s (2003) *Person Licensing Condition* (or *PLC*):

(26) PERSON LICENSING CONDITION (PLC)

1st/2nd-person arguments must be licensed by entering into an agreement relation with an appropriate functional category. [Béjar & Rezac 2003]

• The PLC is required, in one form or another, on any syntactic account of the *Person Case Constraint* (or *PCC*; a.k.a., the *\*me-lui* constraint)

- and see Albizu 1997, Rezac 2008, Baker 2011, and Preminger 2011b, for evidence that non-syntactic accounts of the PCC are untenable (cf. Bonet 1991, 1994)

• Under the analysis proposed here, **the [PERSON] probe ( $\pi^0$ ) only ever enters into an agreement relation with one core argument**

- the other argument is skipped, in much the same way a non-*wh* DP is skipped by a *wh*-probe (Rizzi 1990)

⇒ This derives (25).

(As an aside, note that the *AF person restriction* cannot be captured in terms of *Multiple Agree* (Anagnostopoulou 2005, Hiraiwa 2001, 2004, *a.o.*), because it is fully symmetrical with respect to the subject and object—cf. the PCC, which asymmetrically restricts the features of the DO relative to the IO; see Preminger 2011a:41–44 for a more detailed discussion.)

.....

Now, consider derivations where there is no 1st/2nd-person argument to be found:

- Following the same *Relativized Minimality* logic, both DPs will be skipped by the  $\pi^0$  probe
  - let’s defer, for a short time, the question of the “fate” of a probe that has found no suitable target (*though this will be the central point of section 3, below*)

• What is clear is that no 1st/2nd-person DP will have been successfully probed by  $\pi^0$

⇒ no clitic will be created

- This derives the absence of any pronoun-like material in the agreement complex when all arguments are 3rd-person—again, exactly as attested:

(27) ja ri tz'i' x- $\phi$ -etzela-n ri sian

FOC **the dog** PRFV-3sg.ABS-hate-AF **the cat**

'It was the dog that hated the cat.'

(28) ja rja' x-**e**/ $\phi$ -tz'et-ö rje'

FOC him PRFV-**3pl**/**\*3sg**-see-AF them

'It was him who saw them.'

[=(9)]

(29)

	1sg	1pl	2sg	2pl	3sg	3pl
strong pronoun	yin	röj	rat	rïx	rja'	rje'
ABS agr.-marker	-i(n)-	-oj-	-a(t)-	-ix-	- $\phi$ -	-e-

(Kaqchikel)

[=(21)]

At this juncture, we make the one assumption that is not directly supported from outside of Mayan (though see below, regarding Tzotzil):

(30) The realization of  $\pi^0$  <+CL> competes with—and preempts—the realization of  $\#^0$  (the [NUMBER] probe), for a single slot of morpho-phonological exponence.

- This is along the same lines of Halle & Marantz's (1993) account of English past tense verbal morphology
  - where '-ed' competes with—and preempts—the subject agreement suffix, '-s'
- See also Preminger 2011a:81–83, for support for this assumption regarding  $\pi^0$  and  $\#^0$  in particular, from the (non-Kichean) Mayan language Tzotzil
  - possibly, an instance of a more general principle privileging the pronunciation of pronominal material (in this case, the clitic) over purely functional material

⇒ As a result, the exponence of the [NUMBER] probe,  $\#^0$ , will surface only when clitic-doubling has not occurred (i.e., when both core arguments are 3rd-person)

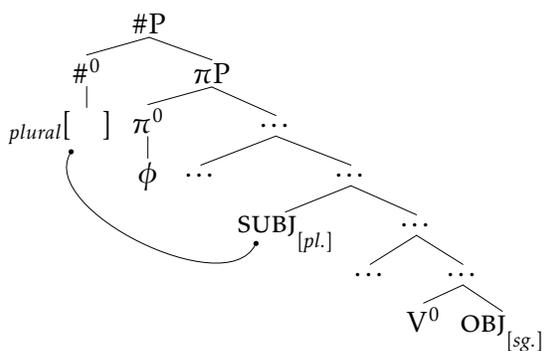
- Assuming that  $\#^0$  is relativized to [plural] (just like  $\pi^0$  is relativized to [participant]), only DPs bearing [plural] will give rise to valuation on  $\#^0$

(31) a.  $\#^0$  with valued [plural]:<sup>4</sup> /-e-/

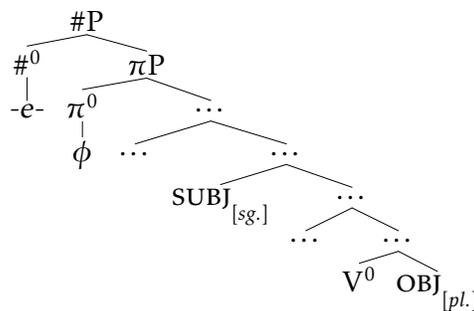
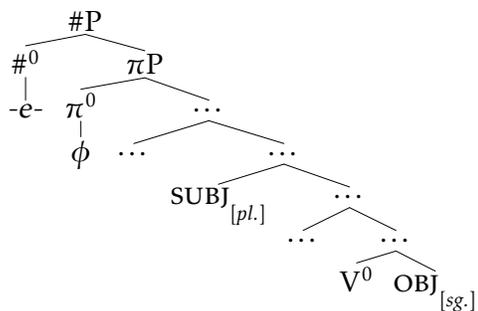
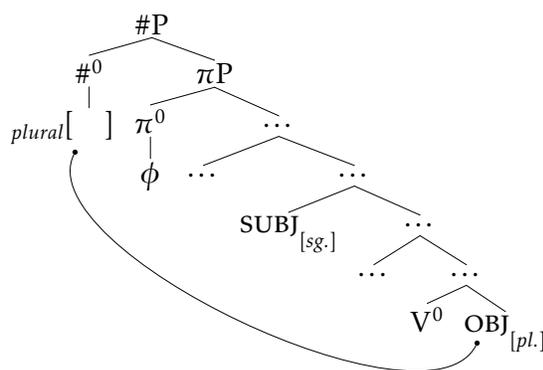
b.  $\#^0$  without valued [plural]: /- $\phi$ -/

<sup>4</sup>Additional support for the existence of a pluralizing morpheme -e- in Kaqchikel might be found in the forms of the 3sg/3pl strong pronouns, rja' and rje', respectively (see (21) above). It is not inconceivable that rje' (3pl) arises from rja' (3sg) via the affixation of -e-, followed by simplification of the resulting diphthong.

(32) a. PL SUBJECT, SG OBJECT



b. SG SUBJECT, PL OBJECT



.....

- Despite these overwhelming similarities between probing for [*participant*] and for [*plural*] (compare (24a–b) and (32a–b)), there is one important difference between the two —
  - having to do with licensing

- Recall the *AF person restriction*:

(33) In the Agent-Focus construction in Kichean, at most one of the two core arguments can be 1st/2nd-person. [= (17)]

- This was shown to derive directly from Béjar & Rezac’s *PLC* (34), when combined with the fact that the probe, π<sup>0</sup>, only ever enters into an agreement relation with one argument

(34) PERSON LICENSING CONDITION (PLC)

1st/2nd-person arguments must be licensed by entering into an agreement relation with an appropriate functional category. [Béjar & Rezac 2003]; [= (26)]

- Recall furthermore that there is no corresponding “*AF plural restriction*”; two plurals can freely co-occur in AF:

(35) ja rje’ x-øj-tz’et-ö röj  
 FOC **them** PRFV-1pl-see-AF **us**  
 ‘It was them who saw us.’ [= (13)]

- This is predicted, if we assume—with Béjar & Rezac 2003 (34)—that the PLC is a *sui generis* licensing requirement on marked [PERSON] features
    - rather than a licensing requirement on marked  $\varphi$ -features more generally (contra Baker 2011; see also Béjar & Rezac 2009)
- ⇒ a **1st/2nd-person DP** that has not been agreed with will give rise to ungrammaticality;  
but a **plural DP** that has not been agreed with will not

We have arrived at a probe-goal based account of  $\varphi$ -agreement in Kichean AF, which:

- (i) captures the effects of “salience” hierarchies/scales (like the one repeated in (36) below), without recourse to an extrinsic device of this sort
  - and instead, using well-established mechanisms, such as probe-goal and clitic doubling
- (ii) derives the *AF person restriction* as a theorem
  - using Béjar & Rezac’s (2003) PLC, motivated independently of these Kichean facts
- (iii) captures the distinctions in morpho-phonological form between 1st/2nd-person “agreement markers” and 3rd-person ones (repeated in (37) below)
  - namely, the systematic resemblance of the former, but not the latter, to the strong pronouns in the language
- (iv) is compatible with the fact that these so-called “hierarchy” effects occur nowhere in the language except in AF
  - because this is the only configuration where both core arguments are in the same locality domain (say, the same *phase*) as the two  $\varphi$ -probes,  $\pi^0$  and  $\#^0$  (following Coon, Mateo Pedro & Preminger 2011)
- (v) is compatible with the fact that it is the formal, not “cognitive”, properties of an expression that determine its behavior vis-à-vis  $\varphi$ -agreement
  - recall the 2nd-person “polite” pronoun in K’ichee’, which is morpho-syntactically 3rd-person, and behaves as a 3rd-person DP for the purposes of “hierarchy effects”

(36) *1st/2nd*  $\gg$  *3rd-plural* ( $\gg$  *3rd-singular*) [=(19)]

(37) (Kaqchikel)  
[=(21)]

		1sg	1pl	2sg	2pl		3sg	3pl	
strong pronoun		yïn	röj	rat	rïx		rja’	rje’	
ABS agr.-marker		-i(n)-	-oj-	-a(t)-	-ix-		-φ-	-e-	

## OUTLINE

- ☑  $\varphi$ -agreement in Kichean
  - ☑  $\varphi$ -agreement in the Agent-Focus construction: The data
  - ☑ The traditional account: “salience” hierarchies/scales
  - ☑ A probe-goal account of  $\varphi$ -agreement in Kichean Agent-Focus
- ☐ What this all means for *Filtration* theories of  $\varphi$ -agreement
- ☐ The conjoint/disjoint distinction and the distribution of nominal augment in Zulu

### 3. What this all means for *Filtration* theories of $\varphi$ -agreement

- Agreement in Kichean AF is obligatory:

(38) a. ja rat x-at/\* $\phi$ -axa-n ri achin  
 FOC you(sg.) PRFV-2sg/\*3sg.ABS-hear-AF the man  
 ‘It was you(sg.) that heard the man.’

b. ja ri achin x-at/\* $\phi$ -axa-n rat  
 FOC the man PRFV-2sg/\*3sg.ABS-hear-AF you(sg.)  
 ‘It was the man that heard you(sg.).’

[=(6–7)]

(39) a. ja rje’ x-e/\* $\phi$ -tz’et-ö rja’  
 FOC them PRFV-3pl/\*3sg.ABS-see-AF him  
 ‘It was them who saw him.’

b. ja rja’ x-e/\* $\phi$ -tz’et-ö rje’  
 FOC him PRFV-3pl/\*3sg.ABS-see-AF them  
 ‘It was him who saw them.’

[=(8–9)]

- Suppose that this is the result of the presence of “uninterpretable”  $\varphi$ -features on the probe (in this case,  $\pi^0/\#^0$ )  
 $\Rightarrow$  the ungrammatical variants of (38–39) are ruled out because these “uninterpretable”  $\varphi$ -features reach the interfaces without being checked/deleted

- ➔ What would this entail for clauses where *both arguments are 3rd-person singular*?

(40) ja ri xoq x- $\phi$ -tz’et-ö ri achin  
 FOC **the woman** PRFV-3sg.ABS-see-AF **the man**  
 ‘It was the woman who saw the man.’

- These should be ungrammatical unless some syntactic node has checked/deleted the “uninterpretable”  $\varphi$ -features on both  $\pi^0$  and  $\#^0$
- Now, there is no 1st/2nd-person and/or plural DP in (40)
  - nor does any 1st/2nd-person and/or plural agreement morphology appear

⇒ The targets that putatively check the “uninterpretable”  $\varphi$ -features on  $\pi^0$  and  $\#^0$  must be 3rd-person singular

• But it was shown above that:

- $\pi^0$  **must systematically skip 3rd-person targets**; and
- $\#^0$  **must systematically skip singular targets**

• Let’s remind ourselves of what goes wrong if were to relax these assumptions:

We would falsely predict that the probe could agree with the 3rd-person subject in an example like (38b), and with the singular subject in (39b)

- by hypothesis, this should eliminate the need for the probe to search any further, and thus, the need to agree with the 1st/2nd-person or plural object

⇒ **There is no argument that could have checked the “uninterpretable”  $\varphi$ -features on  $\pi^0/\#^0$ , as everything in the clause is 3rd-person singular**

• But the same applies to any potential agreement target, not just subjects/objects

- **including: covert expletives, functional projections along the clausal spine, etc.**

These will also be 3rd-person/singular—and again, the verb shows no 1st/2nd-person or plural morphology (40), in the first place—and thus cannot be targeted by  $\pi^0$

⇒ **An approach based on “uninterpretable”  $\varphi$ -features cannot handle these Kichean facts**

.....

*But what about “Last Resort”?*

- it is possible that there is a repair mechanism capable of eliminating “uninterpretable”  $\varphi$ -features from the representation before they have a chance to cause ungrammaticality
  - e.g. Béjar’s 2003 *Default Valuation* operation
- but it must be a *last resort* — in particular, we need to prevent it from applying to the non-agreeing variants of examples like (38–39) (cases of “gratuitous non-agreement”)

⇒ the system must keep track of whether agreement has been *attempted*, independently of whether it has culminated successfully

- which is what uninterpretable/interpretable or unchecked/checked tracks

• but if agreement must be attempted independently of whether or not it succeeds, then **“uninterpretable”  $\varphi$ -features are bearing absolutely *none* of the empirical burden**

- i.e., there is no ungrammatical utterance whose ungrammaticality results from an unchecked “uninterpretable”  $\varphi$ -feature

.....

*But what if the probe carries “uninterpretable”  $\varphi$ -features only when there is something for it to agree with?*

- Then something must rule out the non-“uninterpretable”-bearing variant of the probe when there is a viable agreement target —

- otherwise the ungrammatical variant of (41), below, would be falsely ruled in:

(41) ja rja' x-e/\* $\phi$ -tz'et-ö rje'  
 FOC him PRFV-3pl/\*3sg.ABS-see-AF them  
 'It was him who saw them.' [=(9, 39b)]

- It cannot be the case that [plural]-bearing DPs generally require licensing by agreement
  - otherwise at least one of the [plural]-bearing arguments in (42) would go unlicensed:

(42) ja röj x-**oj**-tz'et-ö rje'  
 FOC us PRFV-1pl.ABS-see-AF them  
 'It was us who saw them.'

⇒ **It seems that there is no way to enforce the “uninterpretable”-bearing variant to appear in (41), that does not also falsely rule out (42)**

Note that the same considerations also militate against an account where the DPs themselves, rather than the probe, carry the “uninterpretable”  $\varphi$ -features (or any other ‘derivational time-bombs’) which enforce the obligatoriness of  $\varphi$ -agreement —

- since again, this predicts ungrammaticality for (42), which involves two [*plural*]-bearing DPs but only one  $\varphi$ -agreement relation

---

#### CONCLUSIONS SO FAR:

- It is empirically untenable to derive the obligatoriness of  $\varphi$ -agreement from “uninterpretable”  $\varphi$ -features (or any other ‘derivational time-bomb’)
  - ⇒ So we should, you know, **stop using them** for that...
- Because  $\varphi$ -agreement adheres to *Strict Generativity*, it is no longer possible to entertain a syntactic theory that is entirely *Filtration*-based
  - this includes theories where syntax is entirely driven by late-applying “interface conditions” (as proposed, for example, by Chomsky 2004, 2008)

#### SOME OPEN QUESTIONS:

- Given their inadequacy as the mechanism underlying  $\varphi$ -agreement, can/should we try to do away with “uninterpretable features” altogether?
- What role, if any, remains for “uninterpretable features”, outside of  $\varphi$ -agreement?
  - EPP? {c,C}ase? Ellipsis? Neg-Concord?

---

*RESULTS SO FAR* ⇒ The obligatoriness of  $\varphi$ -agreement cannot be reduced to *Filtration*, along the lines of the “uninterpretable”  $\varphi$ -features proposal.

How, then, should the obligatoriness of  $\varphi$ -agreement be captured in the grammar?

Here are a couple of possibilities:

(i)  $\varphi$ -agreement as a violable constraint:

(43) HAVEAGR: Assign one violation mark for every failure to represent the  $\varphi$ -features of the designated argument on a finite verb.

- when there is a viable agreement target, a candidate form with  $\varphi$ -agreement will outperform a candidate without  $\varphi$ -agreement with respect to HAVEAGR
- when there is no viable agreement target (e.g. when both core arguments in Kichean AF are 3rd-singular), no candidate will satisfy HAVEAGR
  - rendering it irrelevant to the competition between candidates

(ii)  $\varphi$ -agreement as an obligatory operation:

(44)  $\text{FIND}_{\varphi}(f)$ : Given an unvalued feature  $f$  on a head  $H^0$ , find an XP bearing valued  $f$ . Upon finding such an XP, assign the value of  $f$  on XP to  $H^0$ .

[Preminger 2011a:128]

- what is obligatory, on this view, is the invocation of (44)
    - ⇒ ungrammaticality arises when (44) is not invoked
  - once (44) is invoked, however, the derivation will culminate successfully, whether  $\text{FIND}_{\varphi}(f)$  has found an appropriate target or not
- It seems to me that both of these approaches handle the data presented here equally well
    - though see Preminger 2011a:103–139, for discussion of an empirical domain that does distinguish (i) from (ii), and which tips the scales in favor of the latter, a *Strict Generativity* approach par excellence

.....

Regardless of which implementation we ultimately adopt:

- the fact that the grammar tolerates attempted-but-failed agreement finds support in empirical domains beyond the one discussed so far

In the next section, I will briefly discuss one such case, from the morphosyntax of Zulu.

.....  
OUTLINE

- ☑  $\varphi$ -agreement in Kichean
- ☑  $\varphi$ -agreement in the Agent-Focus construction: The data
- ☑ The traditional account: “salience” hierarchies/scales
- ☑ A probe-goal account of  $\varphi$ -agreement in Kichean Agent-Focus
- ☑ What this all means for *Filtration* theories of  $\varphi$ -agreement
- ☐ The conjoint/disjoint distinction and the distribution of nominal augment in Zulu

## 4. The conjoint/disjoint distinction and the distribution of nominal augment in Zulu

The original research reported in this section belongs to Claire Halpert ([halpert@mit.edu](mailto:halpert@mit.edu)). I am indebted to her for allowing me to use this material here. Any errors or misrepresentations are my own.

.....

### 4.1. The *conjoint/disjoint* distinction

In some tenses, the Zulu verb alternates between two morphological forms: *conjoint* (marked by  $-\phi-$  in the present), and *disjoint* (marked by  $-ya-$  in the present).

(45) a. *POSTVERBAL SUBJECT: CONJOINT REQUIRED*

ku-  $\phi$ / $^*$ ya- pheka [ u- Siphho ] (Zulu)  
 17S- cook 1AUG- 1Siphho  
 ‘SIPHO’s cooking.’

b. *PREVERBAL SUBJECT: DISJOINT REQUIRED*

[ u- Siphho ] u- ya/ $^*$  $\phi$ - pheka  
 1AUG- 1Siphho 1S- cook  
 ‘Siphho is cooking.’

- Contra what (45a–b) might lead you to believe, it is not the case that *conjoint/disjoint* simply tracks whether or not something has been extracted from *vP*;
- Instead, it is sensitive to **whether or not *vP* contains any non-moved overt material** (Buell 2005, 2006, van der Spuy 1993)

*conjoint*: *vP* contains overt postverbal material

*disjoint*: *vP* contains no overt postverbal material

⇒ The prediction is that extraction should be neither a necessary nor sufficient condition for the *disjoint* to appear; this is indeed borne out:

- in (46a), where the subject has been extracted from *vP*, the *conjoint* is still required and the *disjoint* still impossible—since the *vP* still contains the object
  - the object must be extracted, as well, for the *disjoint* to be grammatical, as in (46b) (in which case the *conjoint* is impossible, of course)
- in (47), conversely, no extraction has taken place, yet the *disjoint* is the required form (and the *conjoint* is impossible), since the *vP* is born empty

## (46) a. TRANSITIVE W/POSTVERBAL OBJECT: CONJOINT REQUIRED

[ u- Siphō ] u- φ/\*ya- pheka [ i- qanda ]  
 1AUG- 1Siphō 1S- cook 5AUG- 5egg

‘Siphō is cooking an egg.’

## b. TRANSITIVE W/PREVERBAL OBJECT: DISJOINT REQUIRED

[ i- qanda ] [ u- Siphō ] u- ya/\*φ- li- pheka  
 5AUG- 5egg 1AUG- 1Siphō 1S- 5O- cook

‘As for the egg, Siphō is cooking it.’

## (47) WEATHER PREDICATE: DISJOINT REQUIRED

ku- ya/\*φ- banda  
 17S- be.cold

‘It’s cold.’

- Finally, the alternation is sensitive not only to arguments, but also to locative modifiers<sup>5</sup>
  - compare high (i.e., location) reading of *phandle* “outside”, vs. low (i.e., goal) reading:

(48) a. [ u- Siphō ] [ u- φ- gijima phandle ]<sub>vP</sub>  
 1AUG- 1Siphō 1S- run outside

‘Siphō is running outside.’ (✓ goal reading, ✗ location reading)

b. [ u- Siphō ] [ u- ya- gijima ]<sub>vP</sub> phandle  
 1AUG- 1Siphō 1S- run outside

‘Siphō is running outside.’ (✗ goal reading, ✓ location reading)

4.2. The *augment*

- Nominals in Zulu are typically marked with an initial vowel (the *augment*), which reflects noun-class:

- (49) a. i- n- cwadi “book” (class 9)  
 b. u- mu- ntu “person” (class 1)  
 c. i- zim- fingo “sharks” (class 10)  
 d. i- xoxo “frog” (class 5)

<sup>5</sup>Claire Halpert’s (p.c.) findings also indicate that the conditions on the appearance of *-ya-* cannot be formulated prosodically, either, as there are both instances of phrase-final verbs *without -ya-* (in the first conjunct of Right-Node Raising constructions), and instances of phrase-medial verbs *with -ya-* (before certain purpose/rationale clauses, which can be shown not to induce a right-hand prosodic boundary after the verb).

- In a set of restricted environments, nominals may appear without an *augment* vowel (Buell 2011, Mzolo 1968, Von Staden 1973); several factors affect the distribution of augment-less nominals—including definiteness, specificity, and focus, as well as the presence of c-commanding negation (Buell 2011, Halpert 2011)
- Here, we abstract away from these, **focusing instead on the structural requirements on the appearance of augment-less nominals**
  - following Halpert (2011), who shows that the structural requirements are indeed independent of these other factors
- First, note that augment-less nominals must appear within *vP*:

- (50) a. A- ngi- sho- ngo ukuthi ku- fik- e [ u- muntu ]  
 NEG- 1st.sg.S- say- NEG.PAST that 17S- arrive- PRFV 1AUG- 1person  
 ‘I didn’t say that someone came.’
- b. A- ngi- sho- ngo ukuthi [ u- muntu ] u- fik- ile  
 NEG- 1st.sg.S- say- NEG.PAST that 1AUG- 1person 1S- arrive- PRFV  
 ‘I didn’t say that someone came.’
- (51) a. A- ngi- sho- ngo ukuthi ku- fik- e [ muntu ]  
 NEG- 1st.sg.S- say- NEG.PAST that 17S- arrive- PRFV 1person  
 ‘I didn’t say that anyone came.’
- b. \* A- ngi- sho- ngo ukuthi [ muntu ] u- fik- ile  
 NEG- 1st.sg.S- say- NEG.PAST that 1person 1S- arrive- PRFV

- Next, note that an augment-less nominal must be the highest in its *vP*.<sup>6</sup>

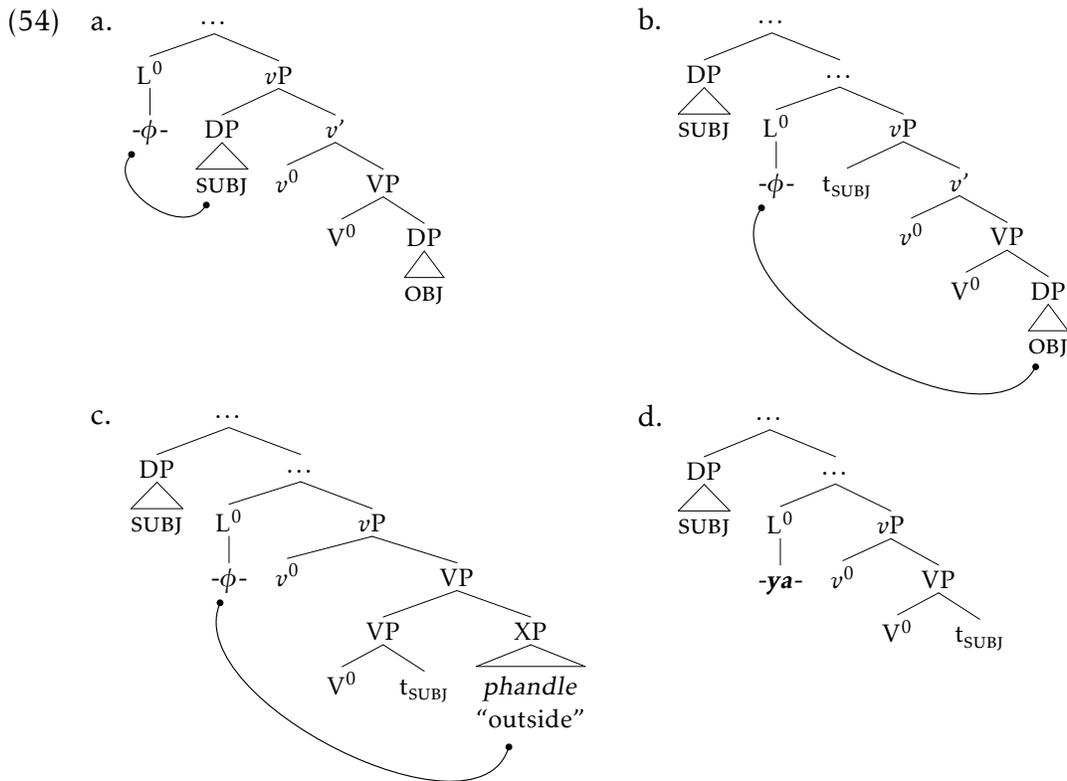
- (52) a. ✓ *SVO W/AUGMENT-LESS O*  
 [ u- muntu ] a- ka- phek- i [ qanda ]  
 1AUG- 1person NEG- 1S- cook- NEG 5egg  
 ‘A/the person isn’t cooking any egg.’
- b. ✓ *VSO W/AUGMENT-LESS S, AUGMENTED O*  
 a- ku- phek- i [ muntu ] [ i- qanda ]  
 NEG- 17S- cook- NEG 1person 5AUG- 5egg  
 ‘NOBODY is cooking the/an/any egg.’
- c. ✗ *VSO W/AUGMENT-LESS S, AUGMENT-LESS O*  
 \* a- ku- phek- i [ muntu ] [ qanda ]  
 NEG- 17S- cook- NEG 1person 5egg
- d. ✗ *VSO W/AUGMENTED S, AUGMENT-LESS O*  
 \* a- ku- phek- i [ u- muntu ] [ qanda ]  
 NEG- 17S- cook- NEG 1AUG- 1person 5egg

<sup>6</sup>See Halpert 2011, for a discussion of some complications that arise in applicative verb-phrases.

### 4.3. Halpert’s (to appear) analysis

- Suppose there is a head  $L^0$ , which probes into  $vP$ 
  - and is crucially able to probe after some movement out of  $vP$  has already occurred (cf. Asarina 2011, Holmberg & Hróarsdóttir 2003, Sigurðsson & Holmberg 2008)
- **If no  $vP$ -internal XP is found, the result is not a “crash” — rather, simply a lack of valuation on  $L^0$**

- (53) a.  $-\phi-$  (the *conjoint*): spellout of  $L^0$  which has found an agreement target  
 b.  $-ya-$  (the *disjoint*): spellout of  $L^0$  which has not found an agreement target
- while this pattern is slightly marked, in that the overt member of the paradigm is the one corresponding to a *lack* of valuation, this is not unattested
    - cf. the English simple present main-verb subject agreement paradigm (*-s* for *3rd-singular*,  $-\phi$  elsewhere)



Turning now to nominal *augment*:

- suppose that augment-less nominals in Zulu are like [*participant*]-bearing nominals in Kichean —
  - they must be agreed with (in this case, by  $L^0$ ) in order to be licensed
- augmented nominals in Zulu, on the other hand, are like [*plural*]-bearers in Kichean —
  - they can be targeted for agreement, but they can also appear without being agreed with (i.e., they do not require “licensing”)
    - cf. (13) above, a grammatical example of AF with two plural arguments
- **This derives the fact that multiple augmented nominals can co-occur, but at most one augment-less nominal can appear per *vP***
  - exactly like Kichean [*plural*]-bearers and [*participant*]-bearers, respectively (and for the same reasons)

⇒ Thus, in (54a) above, for example, it is impossible for both the subject and the object to be augment-less — as confirmed by (52c), repeated here:

(52) c. \* a- ku- phek- i [ muntu ] [ qanda ]  
 NEG- 17S- cook- NEG 1person 5egg

.....

- A significant difference relative to Kichean is that the kind of nominal requiring licensing in Zulu (i.e., the augment-less kind) must be the highest argument in *vP*
  - as demonstrated by (52d), repeated here:

(52) d. \* a- ku- phek- i [ u- muntu ] [ qanda ]  
 NEG- 17S- cook- NEG 1AUG- 1person 5egg

- whereas the kind of nominal that requires licensing in Kichean (i.e., the [*participant*]-bearing kind) can appear as either subject or object
  - provided that the other argument is 3rd-person (see, for example, (6–7) in §2.1)
- In other words, 3rd-singular DPs in Kichean are “skippable”, whereas nothing in Zulu seems “skippable”
- **But this derives from an independently observable difference between Kichean and Zulu:**
  - In terms of *Relativized Minimality*, Zulu  $L^0$  is relativized to target pretty much *any* XP, even locative modifiers
    - recall (48a–b), repeated here:

- (48) a. [ u- Siphō ] [ u- gijima phandle ]<sub>vP</sub>  
 1AUG- 1Siphō 1S- run outside  
 ‘Siphō is running outside.’ (✓ goal reading, ✗ location reading)
- b. [ u- Siphō ] [ u- ya- gijima ]<sub>vP</sub> phandle  
 1AUG- 1Siphō 1S- run outside  
 ‘Siphō is running outside.’ (✗ goal reading, ✓ location reading)

- Kichean  $\pi^0$ , in contrast, is relativized to target only [*participant*]-bearers  
 ⇒ it can target the object, in the event that the subject is [*participant*]-less
- whereas **the same never happens with Zulu  $L^0$**  (which given its behavior w.r.t. locative modifiers, appears to place little or no featural restrictions on what it can target)



#### 4.4. The case from Zulu against *Filtration*

- Halpert’s analysis centers around the conjoint/disjoint probe,  $L^0$
- as with Kichean  $\pi^0$  and  $\#^0$ , probing by  $L^0$  can **fail to find a target altogether**
  - like in examples such as (56a–c), where the *vP* has been completely vacated:

- (56) a. [ u- Siphō ] u- ya/\* $\phi$ - pheka  
 1AUG- 1Siphō 1S- cook  
 ‘Siphō is cooking.’ [=(45b)]
- b. [ i- qanda ] [ u- Siphō ] u- ya/\* $\phi$ - li- pheka  
 5AUG- 5egg 1AUG- 1Siphō 1S- 5O- cook  
 ‘As for the egg, Siphō is cooking it.’
- c. ku- ya/\* $\phi$ - banda  
 17S- be.cold

- crucially,  $L^0$  cannot engage in *Multiple Agree* relations
    - since that would falsely predict that more than one augment-less nominal could appear (and be licensed) within the same  $vP$
  - consequently,  $vP$  cannot be a viable target for  $L^0$ 
    - since given the unavailability of *Multiple Agree*, that would predict that an augment-less nominal **within**  $vP$ —unambiguously farther away from the probe than the  $vP$  node itself—could not be targeted by  $L^0$ , contra to fact
  - for the same reason, traces of dislocated XPs cannot be viable targets for  $L^0$
- ⇒ **when  $vP$  is completely vacated, there is no target which could have checked any features on  $L^0$**
- and note that a theory where  $L^0$  can be born with and without the relevant feature(s) is ruled out on the same grounds as with Kichean #<sup>0</sup>
    - namely, it renders the obligatoriness of  $L^0$ -probing impossible to derive without falsely ruling out the appearance of multiple augmented nominals in the same  $vP$ 
      - see the discussion of multiple [*plural*]-bearing DPs in Kichean, in §3
- ➔ **Thus, the *disjoint* (-ya-), where  $vP$  is completely vacated, constitutes an instance of tolerated attempted-and-failed agreement**

#### 4.5. One more note on hierarchies/scales

- Recall now the approach to  $\varphi$ -agreement in Kichean AF based on a “salience” scale/hierarchy:
- (57) *1st/2nd*  $\gg$  *3rd-plural* ( $\gg$  *3rd-singular*) [=(19)]
- We can now add one more significant shortcoming to this approach:
    - to capture the unity between the Kichean facts and the Zulu facts—as uncovered by Halpert and discussed in §4.3–§4.4—the hierarchies/scales approach would have to posit a corresponding scale for Zulu
    - **but the substantive categories involved in the Zulu pattern are nothing like ‘1st/2nd/3rd-person’ or ‘singular/plural’**
      - they are ‘augment-less’ and ‘augmented’
  - ➔ what is required, then—on analogy with (57)—is for augment-less nominals to be somehow more “salient” than augmented ones

- ⇒ As a result, the prospects for a “salience”-based account of these Zulu facts that is not completely ad hoc seem rather bleak
- since Zulu of course has 1st/2nd/3rd-person distinctions —
    - and yet somehow the latter play no role in the relevant scale/hierarchy in Zulu
  - If the ingredients of the system are purely formal (e.g. features and probes), then it is not terribly surprising to find that the substantive content of the relevant categories can vary in this way (see, for example, Ritter & Wiltschko 2009)
  - But if the relevant properties pertain to “salience”, then this is quite unexpected.

OUTLINE

- ☑  $\varphi$ -agreement in Kichean
- ☑  $\varphi$ -agreement in the Agent-Focus construction: The data
- ☑ The traditional account: “salience” hierarchies/scales
- ☑ A probe-goal account of  $\varphi$ -agreement in Kichean Agent-Focus
- ☑ What this all means for *Filtration* theories of  $\varphi$ -agreement
- ☑ The conjoint/disjoint distinction and the distribution of nominal augment in Zulu

## 5. Further areas of application

- agreement in Basque unergatives and LDA constructions (Preminger 2009, 2012)
- “agreement attraction” in Italian, Hebrew, ... (Franck et al. 2006, Preminger 2010, among many others)
- Tzotzil (see Preminger 2011a:81–83, as well as Aissen 1987, Woolford 2011)
- systematic cross-linguistic asymmetries between agreement in [PERSON] and in [NUMBER] (Baker 2008, 2011; Preminger 2011b; see the APPENDIX)

## 6. Conclusions

“Our hypothesis, then, is that the consequences of ordering, **obligatoriness**, and contextual dependency can be captured in terms of surface filters, something that **surely need not be the case in principle**”

[Chomsky & Lasnik 1977:433, emphasis added]

1. Chomsky & Lasnik were right to hedge their bets: not all instances of obligatoriness can be reduced to *Filtration*
  - In particular,  $\varphi$ -agreement requires an account in terms of *Strict Generativity*
    - as demonstrated, initially, on the basis of  $\varphi$ -agreement in the Agent-Focus construction of Kichean
  - e.g. an obligatory operation, whose invocation is enforced by the grammar, but whose successful culmination is not

As part of this, we saw that “uninterpretable”  $\varphi$ -features (Chomsky 2000, 2001) are empirically inadequate as an account for the obligatoriness of  $\varphi$ -agreement.

2. Some phenomena that don’t necessary look like  $\varphi$ -agreement at first glance might derive from the same underlying mechanism
  - Maybe this is something that we already knew — *but*:
    - Halpert’s (to appear) work on Zulu provides a vivid illustration of this point
    - and in so doing, it provides support for the proposed analysis of  $\varphi$ -agreement in the Kichean AF construction, as well
3. A healthy skepticism of scales and “salience” hierarchies can be useful
  - In some cases, their convenience as a tool of description can mask the existence of a more explanatory and cross-linguistically viable alternative
 (which is not to say that I have shown, nor attempted to show, that this is always the case)

---

## **Appendix: Asymmetries between person and number agreement**

- [Baker \(2008, 2011\)](#):

When an agreement host reflects only a proper subset of the  $\varphi$ -features of a given DP, it is typically [PERSON]-agreement that goes missing

- Importantly, this is not always the case —
  - in Spanish, for instance, main verbs reflect the [PERSON]- and [NUMBER]-features of the agreement target, but not its [GENDER]-features;
  - the latter, however, *are* syntactically active in Spanish, since they determine overt participial agreement for example
 — see Baker 2008:8–9 for some discussion.

- (58) (Nosotras) somos            gord-as / \*gord-amos  
 we.F.PL    are.1pl.SUBJ fat-F.PL    \*fat-1pl  
 ‘We are fat.’

[Baker 2011:876]

- (59) a. Honum mundi/mundu        virðast þeir        vera hæfir.  
 him.DAT would.3sg/would.3pl seem they.NOM be competent  
 ‘They would seem competent to him.’
- b. Honum mundi/\*munduð        virðast þið        vera hæfir.  
 him.DAT would.3sg/\*would.2pl seem you(pl).NOM be competent  
 ‘Y’all would seem competent to him.’
- c. Honum mundi/\*mundum        virðast við        vera hæfir.  
 him.DAT would.3sg/\*would.1pl seem we.NOM be competent  
 ‘We would seem competent to him.’

[Sigurðsson & Holmberg 2008:255]

⇒ The question is: *Why is [PERSON] special?*

Baker (2008):

- [PERSON] is special because 1st/2nd-person features on an agreement host (e.g., T<sup>0</sup>) are, in essence, indexical anaphors that must be bound in an extremely local manner
  - a requirement that boils down roughly to *immediate m-command*
- Thus, when their binder (i.e., the argument itself) is too far away to satisfy these locality conditions, the 1st/2nd-person feature cannot felicitously reside on the agreement host
  - a scenario we would descriptively characterize as “[PERSON]-agreement breaking down” (cf. *PCC effects*)

⇒ **Prediction:** agreement in [PERSON] should not be possible at a (structural) distance

Preminger (2011b):

- (i) [PERSON]-agreement at a distance, while rare, does exist
- for example, in the Kichean data presented above, as well as in certain varieties of Basque (Preminger 2009)

(60) [ [Ni]<sub>(ABS)</sub> altxa-tze-n ] probatu **na**- $\phi$ -u-te.  
 me<sub>(ABS)</sub> lift-NMZ-LOC attempted 1.ABS-sg.ABS- $\sqrt$ -3pl.ERG  
 ‘They have attempted to lift me.’  
 (subject is *pro*<3pl.ERG>)

- (ii) [NUMBER]-agreement at a distance, while more robust than [PERSON]-agreement at a distance, is also “fragile”
- see considerable work on so-called *defective intervention*, in Romance, Greek, Icelandic, Basque, and others; for example:

(61) a. það finnst/\*finnast [einhverjum stúdent]<sub>DAT</sub> [<sub>SC</sub> tölvurnar ljótar ].  
 EXPL find.SG/\*find.PL some student.SG.DAT the.computers.PL.NOM ugly  
 ‘Some student finds the computers ugly.’

X

b. [Einhverjum stúdent]<sub>1</sub> finnast t<sub>1</sub> [<sub>SC</sub> tölvurnar ljótar ].  
 some student.SG.DAT find.PL the.computers.PL.NOM ugly  
 ‘Some student finds the computers ugly.’

[Holmberg & Hróarsdóttir 2003:1000]

⇒ Baker’s approach doesn’t work, because it is counter-exemplified by (i) (the existence of long-distance [PERSON]-agreement), and fails to capture the generalization that emerges from (i)–(ii) —

- namely, that both [PERSON]- and [NUMBER]-agreement are “fragile” at a distance (i.e., subject to intervention)
- But how do we salvage the empirical coverage that Baker’s approach *does* achieve (recall the Spanish (58) and Icelandic (59a–c), above)?
- What if instances of alleged “partial agreement” are simply instances of tolerated attempted-but-failed [PERSON] agreement?

Focusing again on [PERSON] and [NUMBER], and their structural arrangement which should be familiar from earlier:

(62) [ ... [<sub>#P</sub> #<sup>0</sup> [<sub>πP</sub> π<sup>0</sup> [ ... DP<sub>T</sub> ... ] ] ] ... ] (where DP<sub>T</sub> is a putative agreement target)

- suppose there is some syntactic obstruction separating π<sup>0</sup> and DP<sub>T</sub>
    - such as an intervening nominal (e.g. a dative), or a phase boundary
  - this will prevent π<sup>0</sup> from agreeing with DP<sub>T</sub>; now one of two things can happen:
    - (i) NOTHING
 

The obstruction remains, and similarly prevents agreement between #<sup>0</sup> and DP<sub>T</sub>

      - as is the case in full-fledged “defective intervention”
    - (ii) SOMETHING
 

Probing by π<sup>0</sup>, even though it was unsuccessful in reaching DP<sub>T</sub>, had syntactic consequences that effectively removed the obstruction — for example:

      - clitic-doubling the intervener (Anagnostopoulou 2003, Béjar & Rezac 2003)
      - agreeing with the phase-head, thereby allowing subsequent probing to look inside the phase in question (Rackowski & Richards 2005)

In these cases, probing by #<sup>0</sup> will be *successful* in targeting DP<sub>T</sub> —

⇒ resulting in what we would descriptively call “partial agreement” (in [NUMBER] but not in [PERSON])
- ↔ **Crucially, this requires a grammar where probing by π<sup>0</sup> can fail to find the kind of target it is looking for—yet the derivation does not “crash”:**
- **either (i) or (ii) takes place, and the derivation proceeds unimpeded.**
- Importantly, the converse pattern, where π<sup>0</sup> can successfully target DP<sub>T</sub> but #<sup>0</sup> cannot, is predicted not to exist:<sup>7</sup>
    - without going into specific details, this would require an obstruction being introduced between π<sup>0</sup> and #<sup>0</sup> —
      - but π<sup>0</sup> and #<sup>0</sup> are consecutive heads in the clausal spine, so this will generally be impossible
  - And, of course, it could be the case that there was no obstruction to begin with—and so probing by both π<sup>0</sup> and #<sup>0</sup> would go through unimpeded (a.k.a. “successful φ-agreement”).

<sup>7</sup>The expression ‘X successfully targets DP<sub>T</sub>’ is to be understood, in this context, as X successfully reflecting marked φ-features found on DP<sub>T</sub> ([*participant*], [*author*], [*plural*], etc.; §2.3 on the privativity of φ-features). It is, in my mind, an open question whether such a thing as “agreement with a 3rd-person/singular nominal” even exists, or these are simply descriptive terms we use to identify the morphology that surfaces when probes fail to find a target bearing marked features (see Nevins 2007, Preminger 2011a for somewhat dissenting views).

- On the other hand, merging  $DP_T$  in (the specifier of) the immediate complement of  $\pi^0$  would render an obstruction impossible —
  - since there is no structural space between  $\pi^0$  and  $DP_T$  for the obstruction to reside<sup>8</sup>

This derives:

- the fact that long-distance [PERSON]-agreement is more susceptible to disruption than long-distance [NUMBER]-agreement
- the fact that both are more susceptible to disruption than agreement at close range, whether in [NUMBER] or in [PERSON]

## References

- Aissen, Judith. 1987. *Tzotzil clause structure*. Dordrecht: Reidel.
- Aissen, Judith. 2011. On the syntax of agent focus in K'ichee'. In *Proceedings of Formal Approaches to Mayan Linguistics (FAMLi)*, eds. Kirill Shklovsky, Pedro Mateo Pedro & Jessica Coon, MIT Working Papers in Linguistics 63, Cambridge, MA: MITWPL, 1–16.
- Albizu, Pablo. 1997. Generalized Person-Case Constraint: a case for a syntax-driven inflectional morphology. *Anuario del Seminario de Filología Vasca Julio de Urquijo (ASJU, International Journal of Basque Linguistics and Philology)* XL:1–33.
- Allen, Barbara, Donna Gardiner & Donald Frantz. 1984. Noun incorporation in Southern Tiwa. *International Journal of American Linguistics* 50:292–311.
- Anagnostopoulou, Elena. 2003. *The syntax of ditransitives: evidence from clitics*. Berlin: Mouton de Gruyter.
- Anagnostopoulou, Elena. 2005. Strong and weak person restrictions: a feature checking analysis. In *Clitic and affix combinations: theoretical perspectives*, eds. Lorie Heggie & Francisco Ordóñez, *Linguistics Today* 74, 199–235. Amsterdam: John Benjamins.
- Asarina, Alya. 2011. *Case in Uyghur and beyond*. Doctoral dissertation, Cambridge, MA: MIT.
- Baker, C. L. & Michael K. Brame. 1972. Global rules: a rejoinder. *Language* 48:51–75.
- Baker, Mark C. 2008. *The syntax of agreement and concord*. Cambridge Studies in Linguistics 115, Cambridge: Cambridge University Press.
- Baker, Mark C. 2011. When agreement is for number and gender but not person. *Natural Language & Linguistic Theory* 29:875–915, DOI: 10.1007/s11049-011-9147-z.
- Béjar, Susana. 2003. *Phi-syntax: a theory of agreement*. Doctoral dissertation, Toronto, ON: University of Toronto.
- Béjar, Susana & Milan Rezac. 2003. Person licensing and the derivation of PCC effects. In *Romance linguistics: theory and acquisition*, eds. Ana Teresa Perez-Leroux & Yves Roberge, 49–62. Amsterdam: John Benjamins.
- Béjar, Susana & Milan Rezac. 2009. Cyclic Agree. *Linguistic Inquiry* 40:35–73, DOI: 10.1162/ling.2009.40.1.35.
- Bonet, Eulalia. 1991. *Morphology after syntax: pronominal clitics in Romance*. Doctoral dissertation, Cambridge, MA: MIT.
- Bonet, Eulalia. 1994. The Person-Case Constraint: a morphological approach. In *The morphology-syntax connection*, eds. Heidi Harley & Colin Phillips, MIT Working Papers in Linguistics 22, 33–52. Cambridge, MA: MITWPL.
- Brody, Michael. 1995. Focus and checking theory. In *Levels and structures*, ed. Istvan Kenesei, Approaches to Hungarian 5, 29–44. Szeged: JATE Press.
- Buell, Leston. 2005. *Issues in Zulu morphosyntax*. Doctoral dissertation, Los Angeles, CA: University of California.
- Buell, Leston. 2006. The Zulu conjoint/disjoint verb alternation: focus or constituency?, *ZAS Papers in Linguistics* 43:9–30.
- Buell, Leston. 2011. *The Nguni augment from a syntactic perspective*. Paper presented at the *B4ntu Conference*, Berlin.

<sup>8</sup>This is so even if the category  $\alpha$  in  $[\text{Compl}, \pi]$  is phasal—since the XP in  $[\text{Spec}, \alpha]$  would be situated in the escape-hatch of the  $\alpha$  phase, and thus accessible to probing by  $\pi^0$ .

- Campbell, Lyle & Terrence Kaufman. 1985. Mayan linguistics: where are we now?, *Annual Review of Anthropology* 14:187–198.
- Cardinaletti, Anna & Michal Starke. 1999. The typology of structural deficiency: a case study of the three classes of pronouns. In *Clitics in the languages of Europe*, ed. Henk van Riemsdijk, 145–233. Mouton de Gruyter.
- Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Chomsky, Noam. 2000. Minimalist inquiries: the framework. In *Step by step: essays on minimalist syntax in honor of Howard Lasnik*, eds. Roger Martin, David Michaels & Juan Uriagereka, 89–155. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: a life in language*, ed. Michael Kenstowicz, 1–52. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2004. Beyond explanatory adequacy. In *Structures and beyond*, ed. Adriana Belletti, The Cartography of Syntactic Structures 3, 104–131. New York, NY: Oxford University Press.
- Chomsky, Noam. 2008. On phases. In *Foundational issues in linguistic theory*, eds. Robert Freidin, Carlos Otero & Maria-Luisa Zubizarreta, 133–166. Cambridge, MA: MIT Press.
- Chomsky, Noam & Howard Lasnik. 1977. Filters and control. *Linguistic Inquiry* 8:425–504.
- Coon, Jessica, Pedro Mateo Pedro & Omer Preminger. 2011. *The role of case in A-bar extraction asymmetries: evidence from Mayan*. Ms. URL: <<http://ling.auf.net/lingBuzz/001401>>.
- Craig, Colette Grinevald. 1979. The antipassive and Jacalteco. In *Papers in Mayan linguistics*, ed. Laura Martin, 139–165. Columbia, MO: Lucas Bros. Publishers.
- Davies, William D. & Luis Enrique Sam-Colop. 1990. K'iche' and the structure of antipassive. *Language* 66:522–549.
- Dayley, Jon P. 1978. Voice in Tzutujil. *Journal of Mayan Linguistics* 1:20–52.
- Frampton, John. 1991. Relativized minimality: a review. *The Linguistic Review* 8:1–46.
- Frampton, John & Sam Gutmann. 2002. Crash-proof syntax. In *Derivation and explanation in the Minimalist Program*, eds. Samuel David Epstein & T. Daniel Seely, 90–105. Oxford: Blackwell Publishers.
- Frampton, John & Sam Gutmann. 2006. How sentences grow in the mind: agreement and selection in efficient minimalist syntax. In *Agreement systems*, ed. Cedric Boeckx, 121–157. Amsterdam: John Benjamins.
- Franck, Julie, Glenda Lassi, Ulrich H. Frauenfelder & Luigi Rizzi. 2006. Agreement and movement: a syntactic analysis of attraction. *Cognition* 101:173–216, DOI: 10.1016/j.cognition.2005.10.003.
- Halle, Morris & Alec Marantz. 1993. Distributed Morphology and the pieces of inflection. In *The view from Building 20: essays in linguistics in honor of Sylvain Bromberger*, eds. Ken Hale & Samuel Jay Keyser, 111–176. Cambridge, MA: MIT Press.
- Halpert, Claire. 2011. *Argument licensing in Zulu*. Ms. URL: <<http://ling.auf.net/lingBuzz/001400>>.
- Halpert, Claire. to appear. Structural case and the nature of vP in Zulu. In *Proceedings of the 42<sup>nd</sup> conference of the North East Linguistic Society (NELS 42)*, Amherst, MA: GLSA.
- Harley, Heidi & Elizabeth Ritter. 2002. Person and number in pronouns: a feature-geometric analysis. *Language* 78:482–526, DOI: 10.1353/lan.2002.0158.
- Hiraiwa, Ken. 2001. Multiple agree and the defective intervention constraint in Japanese. In *The proceedings of the MIT-Harvard joint conference (HUMIT 2000)*, ed. Ora Matushansky, MIT Working Papers in Linguistics 40, Cambridge, MA: MITWPL, 67–80.
- Hiraiwa, Ken. 2004. *Dimensions of symmetry in syntax: agreement and clausal architecture*. Doctoral dissertation, Cambridge, MA: MIT.
- Holmberg, Anders & Þorbjörg Hróarsdóttir. 2003. Agreement and movement in Icelandic raising constructions. *Lingua* 113:997–1019, DOI: 10.1016/S0024-3841(02)00162-6.
- Hornstein, Norbert. 1998. Movement and chains. *Syntax* 1:99–127.
- Kramer, Ruth. 2011. *Clitic doubling or object agreement: an Amharic investigation*. Ms. URL: <<http://ling.auf.net/lingBuzz/001406>>.
- Laka, Itziar. 1993. The structure of inflection: a case study in X<sup>0</sup> syntax. In *Generative studies in Basque linguistics*, eds. Jose Ignacio Hualde & Jon Ortiz de Urbina, 21–70. Amsterdam: John Benjamins.
- Lakoff, George. 1970. *Irregularity in syntax*. New York, NY: Holt, Rinehart and Winston, Inc.
- Lakoff, George. 1972. The arbitrary basis of transformational grammar. *Language* 42:76–87.
- McGinnis, Martha. 2005. On markedness asymmetries in person and number. *Language* 81:699–718.
- Mondloch, James L. 1981. *Voice in Quiche-Maya*. Doctoral dissertation, Albany, NY: State University of New York.
- Mzolo, D. 1968. The Zulu noun without the initial vowel. *African Studies* 27:195–210.
- Nevins, Andrew Ira. 2007. The representation of third person and its consequences for Person-Case effects. *Natural Language & Linguistic Theory* 25:273–313, DOI: 10.1007/s11049-006-9017-2.

- Norman, William M. & Lyle Campbell. 1978. Towards a Proto-Mayan syntax: a comparative perspective on grammar. In *Papers in Mayan linguistics*, ed. Nora C. England, University of Missouri Miscellaneous Publications in Anthropology 6, 136–156. Columbia, MO: University of Missouri.
- Perlmutter, David M. 1968. *Deep and surface structure constraints in syntax*. Doctoral dissertation, Cambridge, MA: MIT.
- Perlmutter, David M. 1971. *Deep and surface structure constraints in syntax*. New York, NY: Holt, Rinehart and Winston.
- Polinsky, Maria. 2011. *Explaining syntactic ergativity*. Paper presented at the *Case by Case Workshop*, Paris.
- Preminger, Omer. 2009. Breaking agreements: distinguishing agreement and clitic doubling by their failures. *Linguistic Inquiry* 40:619–666, DOI: 10.1162/ling.2009.40.4.619.
- Preminger, Omer. 2010. Failure to agree is not a failure:  $\varphi$ -agreement with post-verbal subjects in Hebrew. In *Linguistic Variation Yearbook*, eds. Jeroen van Craenenbroeck & Johan Rooryck, vol. 9, 241–278. Amsterdam: John Benjamins, DOI: 10.1075/livy.9.07pre.
- Preminger, Omer. 2011a. *Agreement as a fallible operation*. Doctoral dissertation, Cambridge, MA: MIT.
- Preminger, Omer. 2011b. Asymmetries between person and number in syntax: a commentary on Baker's SCOPA. *Natural Language & Linguistic Theory* 29:917–937, DOI: 10.1007/s11049-011-9155-z.
- Preminger, Omer. 2012. The absence of an implicit object in unergatives: new and old evidence from Basque. *Lingua* 122:278–288, DOI: 10.1016/j.lingua.2011.04.007.
- Rackowski, Andrea & Norvin Richards. 2005. Phase edge and extraction: a Tagalog case study. *Linguistic Inquiry* 36:565–599, DOI: 10.1162/002438905774464368.
- Rezac, Milan. 2008. The syntax of eccentric agreement: the Person Case Constraint and absolutive displacement in Basque. *Natural Language & Linguistic Theory* 26:61–106, DOI: 10.1007/s11049-008-9032-6.
- Ritter, Elizabeth & Martina Wiltschko. 2009. Varieties of INFL: TENSE, LOCATION, and PERSON. In *Alternatives to cartography, the 2<sup>nd</sup> Brussels Conference on Generative Linguistics (BCGL2)*, eds. Hans Broekhuis, Jeroen van Craenenbroeck & Henk van Riemsdijk, Berlin: Mouton de Gruyter, 153–201.
- Rizzi, Luigi. 1990. *Relativized minimality*. Cambridge, MA: MIT Press.
- Shlonsky, Ur. 1989. *The hierarchical representation of subject-verb agreement*. Ms., Haifa: University of Haifa.
- Sigurðsson, Halldór Ármann. 1996. Icelandic finite verb agreement. *Working Papers in Scandinavian Syntax* 57:1–46.
- Sigurðsson, Halldór Ármann & Anders Holmberg. 2008. Icelandic dative intervention: PERSON and NUMBER are separate probes. In *Agreement restrictions*, eds. Roberta D'Alessandro, Susann Fischer & Gunnar Hrafn Hrafnbjargarson, 251–280. Berlin: Mouton de Gruyter.
- Silverstein, Michael. 1976. Hierarchies of features and ergativity. In *Grammatical categories in Australian languages*, ed. R. M. W. Dixon, 112–171. New Jersey, NJ: Humanities Press.
- Smith-Stark, Thom. 1978. The Mayan antipassive: some facts and fictions. In *Papers in Mayan linguistics*, ed. Nora C. England, University of Missouri Miscellaneous Publications in Anthropology 6, 169–187. Columbia, MO: University of Missouri.
- Stiebels, Barbara. 2006. Agent Focus in Mayan languages. *Natural Language & Linguistic Theory* 24:501–570, DOI: 10.1007/s11049-005-0539-9.
- Taraldsen, Knut Tarald. 1995. On agreement and nominative objects in Icelandic. In *Studies in comparative Germanic syntax*, eds. Hubert Haider, Susan Olsen & Sten Vikner, 307–327. Dordrecht: Kluwer Academic Publishers.
- van der Spuy, Andrew. 1993. Dislocated noun phrases in Nguni. *Lingua* 90:335–355, DOI: 10.1016/0024-3841(93)90031-Q.
- Von Staden, P. M. S. 1973. The initial vowel of the noun in Zulu. *African Studies* 32:163–181.
- Weisser, Philipp, Gereon Müller, Fabian Heck, Doreen Georgi & Anke Assmann. 2012. *Blocking of ergative movement by maraudage*. Ms., Leipzig: Universität Leipzig, Institut für Linguistik.
- Wierzbicka, Anna. 1980. *Lingua mentalis: the semantics of natural language*. Sydney: Academic Press.
- Woolford, Ellen. 2011. PF factors in clitic selection in Tzotzil. In *Representing language: essays in honor of Judith Aissen*, eds. Rodrigo Gutiérrez Bravo, Line Mikkelsen & Eric Potsdam, 305–320. Santa Cruz, CA: LRC Publications.

SVN revision code: 5658