PART THREE: Omnivorous agreement and its consequences

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The K'ichean languages and the *Agent-Focus* construction

**Mayan**

- Mayan:
  - more than 6 million speakers today (Bennett, Coon & Henderson 2016)
  - spoken in Guatemala, Mexico, and Belize
Mayan

- vast language family, whose common ancestor is dated ~2000 BC
K'ichean languages

- K'ichean:
  - a sub-branch of the Mayan language family, spoken in the Guatemalan highlands

SOURCE: http://langscape.umd.edu/
K'ichean languages

- The K'ichean branch, narrowly defined, includes 4 languages:
  - Achi', Kaqchikel, K'iche', and Tz'utujil
  - approx. 2.8 million speakers in total

(pictured: the roofs of Patzún; Chimaltenango department, Guatemala)

K'ichean languages

- Like all other Mayan languages, the K'ichean languages are:
  - head-marking
    - lacking any dependent-marking whatsoever
  - underlingly head-initial
    - and often verb-/predicate-initial (VSO/VOS), though not always
      - left-peripheral topic & focus positions
K’ichean languages

- the languages show an **ergative** alignment in their head-marking (=verbal agreement markers)

(1)

### NOMINATIVE-ACCUSATIVE ALIGNMENT

- **A**: NOM
- **P**: ACC

### ERGATIVE-ABSOLUTIVE ALIGNMENT

- **A**: ERG
- **P**: ABS

**transitive:**

- A
- P

**intransitive:**

- S

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(2) **INTRANSITIVE**

a. ʔi ntein k-∅-wär
   det man  COM-3sg.ABS-sleep
   `The man slept.'

b. yín x-i-wär
   me  COM-1sg.ABS-sleep
   ‘I slept.’

(3) **TRANSITIVE**

a. yín x-i-wär
   me  COM-3sg.ABS-1sg.ERG-hear-TV det man
   ‘I heard the man.’

b. ʔi ntein k-∅-axa-j
   yín
   det man  COM-1sg.ABS-3sg.ERG-hear-TV me
   ‘The man heard me.’
The Agent-Focus construction

- Like some (but not all) of the Mayan languages, the K’ichean languages exhibit so-called “syntactic ergativity” —
  - they prohibit the formation of A-bar dependencies (wh-movement, relativization, focus movement) targeting the transitive subject

(4) achike x-∅-wär? (Kaqchikel; Patzún dialect)
   who/what COM-3sg.ABS-sleep
   ‘Who slept?’

(5) achike x-u-∅-tēj ri a Juan?
   who/what COM-3sg.ERG-3sg.ABS-eat DET CLF Juan
   ‘What did Juan eat?’

(6) * achike x-u-∅-lōq’ ri āk’?
   who/what COM-3sg.ERG-3sg.ABS-buy DET chicken
   Intended: ‘Who bought the chicken?’

⇒ How do you ask “Who bought the chicken” in a K’ichean language . . . ?

The Agent-Focus construction

➢ This is where our main protagonist, the Agent-Focus (AF) construction, comes in

- But before turning to AF proper, it’s important to note:
  - AF is just one of several means of getting around this ban
  - this is not surprising — the same is true for more familiar bans in more familiar languages:

(7) * Which dish₁ did you recognize the guy who wheeled t₁ in?

(8) a. This guyₘ, who you recognized — which dish₁ did heₘ wheel t₁ in?
   b. You recognized the guy who wheeled in which dish(, exactly)?
   c. Which dish₁ did heₘ wheel t₁ in, this guyₘ, who you recognized?
   ...
The Agent-Focus construction

- With that out of the way, let us turn to AF proper:
  - AF is associated with a particular (set of) derivational suffix(e s) on the verb
    - taking the form /-ö/ or /-Vn/
      (where ‘V’ represents a stem-harmonic vowel)
    - I will gloss it as: “-AF”

(9) *achike \( x-u-\emptyset-löq’ \) ri äk’?
  who/what COM-3sg.ERG-3sg.ABS-buy DET chicken
  Intended: ‘Who bought the chicken?’

(10) achike \( x-\emptyset-löq’-ö \) ri äk’?
  who/what COM-3sg.ABS-buy-AF DET chicken
  ‘Who bought the chicken?’

\( \varphi \)-agreement in K’ichean AF

- AF reduces the number of agreement markers on the verb:
  - normal transitives: a single ERG marker and a single ABS marker
  - AF verbs: only a single ABS marker (no ERG marker)

- Despite the reduction in the number of agreement markers (2→1), there is no reduction in the number of argument DPs (still 2)
  ➢ And that leads to something interesting happening:
    - instead of cross-referencing the transitive object —
      as ABS agreement would normally do w/2-place verbs
    — a “hierarchy” effect emerges:

(11) 1st/2nd person \( \gg \) 3rd person plural \( \gg \) 3rd person singular
  - descriptively, the argument that controls agreement is determined according to (11)

\( \varphi \)-agreement in K’ichean AF

- This raises the question of whether the hierarchy in (11) is a primitive of grammar —
  - or rather, an emergent property, derivable from more basic grammatical building blocks
- Later on, I’ll argue that it is the latter

But first, let’s see this system in action…
ϕ-agreement in K’ichean AF

(12) 1SG ≫ 3SG
a. ja yín x-in-ax-an rja’
   foc me com-1sg.abs-hear-AF him/her
   ‘It was me that heard him/her.’

b. ja rja’ x-in-ax-an yín
   foc him/her com-1sg.abs-hear-AF me
   ‘It was him/her that heard me.’

(13) 2SG ≫ 3SG
a. ja rat x-at-ax-an rja’
   foc you(sg.) com-2sg.abs-hear-AF him/her
   ‘It was you(sg.) that heard him/her.’

b. ja rja’ x-at-ax-an rat
   foc him/her com-2sg.abs-hear-AF you(sg.)
   ‘It was him/her that heard you(sg.).’

In (12–14), we see a marker (e.g. e’-, e-) that occurs whenever the relevant feature (e.g. [Group]) is found on the subject or on the object (or, as we will see later: both)

➢ This is the behavior known as omnivorous agreement (Nevins 2011).

ϕ-agreement in K’ichean AF

(14) 3PL ≫ 3SG
a. ja rje’ x-e’-ax-an rja’
   foc them com-3pl.abs-hear-AF him/her
   ‘It was them that heard him/her.’

b. ja rja’ x-e’-ax-an rje’
   foc him/her com-3pl.abs-hear-AF them
   ‘It was him/her that heard them.’

a. ja ri tz’ı’ x-∅-etzel-an ri sian
   foc the dog com-3sg.abs-hate-AF the cat
   ‘It was the dog that hated the cat.’

b. ja ri xoq x-∅-tz’et-∅ ri achin
   foc the woman com-3sg.abs-see-AF the man
   ‘It was the woman who saw the man.’
\( \phi \)-agreement in K'ichean AF

(16) \( 1SG \gg 3PL \) (\( 2SG \) behaves analogously)

a. ja \( \text{yïn} \) x-in-ax-an \( \text{rje} \)  
  FOC me COM-1sg.ABS-hear-AF them  
  'It was me that heard them.'

b. ja \( \text{rje} \) x-in-ax-an \( \text{yïn} \)  
  FOC them COM-1sg.ABS-hear-AF me  
  'It was them that heard me.'

(17) \( 1PL \gg 3SG \) (\( 2PL \) behaves analogously)

a. ja \( \text{röj} \) x-oj-ax-an \( \text{rja} \)  
  FOC US COM-1pl.ABS-hear-AF him/her  
  'It was us that heard him/her.'

b. ja \( \text{rja} \) x-oj-ax-an \( \text{röj} \)  
  FOC him/her COM-1pl.ABS-hear-AF us  
  'It was him/her that heard us.'

NB: The argument chosen on the basis of PERSON controls agreement also in NUMBER (or, if you prefer: NUMBER is “pied-piped” with PERSON)

The AF Person Restriction

- We've now seen all possible types of combinations except one:
  - 1st person arg and 2nd person arg, in the same AF clause
  - As it turns out: you just can't do that! (regardless of agreement morphology)

(18) a. * \( \text{yïn} \) x-in-ax-an \( \text{rat} \)  
  me COM-1sg.ABS-hear-AF you(sg.)  
  Intended: 'It was me that heard you.'

b. * \( \text{yïn} \) x-at-ax-an \( \text{rat} \)  
  me COM-2sg.ABS-hear-AF you(sg.)  
  Intended: 'It was me that heard you.'

(19) a. * \( \text{rat} \) x-at-ax-an \( \text{yïn} \)  
  you(sg.) COM-2sg.ABS-hear-AF me  
  Intended: 'It was you that heard me.'

b. * \( \text{rat} \) x-in-ax-an \( \text{yïn} \)  
  you(sg.) COM-1sg.ABS-hear-AF me  
  Intended: 'It was you that heard me.'
The AF Person Restriction

⇒ In other words:

(20) **AF PERSON RESTRICTION**

In a K’ichean AF clause, at most one of the two core arguments can be 1st/2nd person.

- Importantly, there’s no corresponding restriction on multiple plurals co-occurring in AF

(21) ja rōj x-oj-tz’et-ō rje’

FOC us COM-1pl.ABS-SEE-AF them

‘It was us who saw them.’

Against a ‘salience’ hierarchy

- As we have seen —
  - descriptively, agreement in K’ichean AF adheres to (11):

(11) 1st/2nd person ≫ 3rd person plural ≫ 3rd person singular

- Early accounts:
  - (11) reflects a hierarchy of “cognitive salience”


Against a ‘salience’ hierarchy

➢ I think we can dismiss this salience-based account, for a number of reasons:

(i) the flexibility to assign agreement based on alleged “cognitive salience” surfaces nowhere else in the language
  - except for AF — where information structure is the most rigid!

  and remember:
  - agreement in AF ≠ agreement with the focus DP
    - it depends on the DPs’ φ-features, completely ignoring the topic/focus structure
  - ~ “salience”??
Against a ‘salience’ hierarchy

(ii) the effect is not really about the cognitive categories of speaker/addressee/etc. —
   ◦ it’s about morphosyntactic categories:
     “[K’iche’] has developed a 2nd person formal pronoun ‘la; O.P.’, which does not
     behave as a 2nd person with respect to the salience hierarchy, i.e. it does not
     outrank 3rd person.”
     [Stiebels 2006:526, fn. 13]
     – this is expected if the effect is morphosyntactic — la is, in fact, calqued from
     the demonstrative series
     ◦ i.e., it is morphosyntactically 3rd person

Against a ‘salience’ hierarchy

• At this stage, defenders of the “salience”-based approach typically offer the following
  retreat:
  ◦ “cognitive salience” doesn’t really mean cognitive salience;
  ◦ it is a system that has been grammaticalized
    – and only its origins are rooted in cognitive salience
• This is an extremely weak claim (!)
  ➢ Even still, it turns out it can be argued against…

Against a ‘salience’ hierarchy

(iii) there’s nothing about (11) that predicts two arguments with high ‘salience’
     (grammaticalized or not) wouldn’t be able to co-occur:
     (11) 1st/2nd person ≫ 3rd person plural ≫ 3rd person singular
     ◦ in fact, we’d arguably predict such combinations to be optimal, salience-wise
     ◦ and yet, as we know, such combinations are barred (a.k.a., the AF Person
       Restriction)
Against a ‘salience’ hierarchy

(iv) a device like (11) obscures an important morphological generalization:

(11) 1st/2nd person $\gg$ 3rd person plural $\gg$ 3rd person singular

○ (11) is a device that factors out the choice of agreement target from the process of agreement itself; i.e. —

**INPUT:** the inventory of arguments in a given clause

**OUTPUT:** which one will be targeted for agreement

$\Rightarrow$ **Prediction:**

$\varphi$-agreement in AF should be a uniform process *but for the choice of target.*

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**Against a ‘salience’ hierarchy**

➢ this prediction is false:

(22) $\begin{array}{l|l|l|l|l|l|l} 1sg & 1pl & 2sg & 2pl & 3sg & 3pl \\ \hline \text{strong pronoun} & y\text{i}n & r\text{oj} & r\text{at} & r\text{ix} & r\text{ja} & r\text{je} \\ \hline \text{agreement marker} & i(n)- & oj(-) & a(t)- & ix- & o(-) & e(')- \\ \end{array}$ (Kaqchikel; Patzicía dialect)

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

- for 1st/2nd person . . .

(23) agreement marker = strong pronoun − initial approximant

**NB:** This initial approximant is almost certainly a determiner.

- . . . but not for 3rd person: *ja', *je'!

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Against a ‘salience’ hierarchy

➢ this prediction is false:

(22) $\begin{array}{l|l|l|l|l|l|l} 1sg & 1pl & 2sg & 2pl & 3sg & 3pl \\ \hline \text{strong pronoun} & y\text{i}n & r\text{oj} & r\text{at} & r\text{ix} & r\text{ja} & r\text{je} \\ \hline \text{agreement marker} & i(n)- & oj(-) & a(t)- & ix- & o(-) & e(')- \\ \end{array}$ (Kaqchikel; Patzicía dialect)

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

$\Rightarrow$ it is simply not true that agreement in AF is a uniform process *but for the choice of target*
Against a ‘salience’ hierarchy

⇒ Summary:
  o Overall, the “salience hierarchy” approach (on both its strong & weak
    interpretations) is —
    – unexplanatory
    – descriptively inadequate

If not ‘salience’, then what?

• We need an alternative account of agreement in K’ichean AF
• Here are some initially plausible-looking accounts that end up not working well:
  o Multiple Agree
  o feature-percolation
  o a portmanteau
    (i.e., a single morpheme reflecting agreement with both arguments)
  o multiple lexical variants of the probe
    (cf.: $C^0_{ [+\text{decl}]}$ vs. $C^0_{ [+\text{decl, +wh}]}$)

(see Preminger 2014, pp. 18–20, 67–73, 89, 123–128)

If not ‘salience’, then what?

➢ Then how does agreement in K’ichean AF work?

ANSWER: probe-goal!!

(i) There are two syntactic probes in the Infl “area” in K’ichean —
  $\pi^0$: a head that probes for PERSON features
  $\#^0$: a head that probes for NUMBER features

(24) 

```
         #P
        / \   
 #0    $\pi$P
   / \      / 
 $\pi^0$ $\ldots$ $\ldots$
```

(see Preminger 2014, pp. 18–20, 67–73, 89, 123–128)
If not ‘salience’, then what?

Note —
• $\pi^0$ and $\#^0$ might be one and the same head;
• all that’s important is that $\pi^0$ (probing for PERSON) comes first

But:
• we already have a mechanism in natural language that causes probing for feature $[f]$ to occur before probing for feature $[g]$
  ○ namely, placing the probe that seeks $[f]$ on a lower head than the probe that seeks $[g]$
  ○ the lower head will be merged into the structure first, and thus, will do its thing sooner
⇒ the simplest assumption is thus that $\pi^0$ is lower than (viz. asymmetrically c-commanded by) $\#^0$

If not ‘salience’, then what?

(ii) $\pi^0$ in K’ichean triggers clitic doubling of whatever DP it targets
• just like internal-argument $\pi^0$ in languages with PCC effects (Anagnostopoulou 2003, Béjar & Rezac 2003)

At first approximation, clitic doubling is:
• creation of a small, pronoun-like morpheme (viz. $D^0$)
  ○ (usually) adjoined to a verbal head or TAM-marker
  ○ and matching one of the arguments in $\phi$-features
• lots more to say... (incl. how this differs from Jelinek’s 1984 Pronominal Argument Hypothesis)
➢ You are welcome to ask me.
What's good for [wh] is good for [Group] & [Participant], too


(25) a. \([C^0 [\text{who}_{[wh]}] \text{gave} [\text{this dish}] \text{to} [\text{Bob}]]\)
    \[\rightarrow [C^0 [\text{who}_{[wh]}] \text{gave} [\text{this dish}] \text{to} [\text{Bob}]]\]
    \[\rightarrow \text{Who gave this dish to Bob?}\]

b. \([C^0 [\text{John}] \text{gave} [\text{what}_{[wh]}] \text{to} [\text{Bob}]]\)
    \[\rightarrow [C^0 [\text{John}] \text{gave} [\text{what}_{[wh]}] \text{to} [\text{Bob}]]\]
    \[\rightarrow \text{What did John give to Bob?}\]

c. \([C^0 [\text{John}] \text{gave} [\text{this dish}] \text{to} [\text{who}_{[wh]}]]\)
    \[\rightarrow [C^0 [\text{John}] \text{gave} [\text{this dish}] \text{to} [\text{who}_{[wh]}]]\]
    \[\rightarrow \text{Who did John give this dish to?}\]

What's good for [wh] is good for [Group] & [Participant], too

- Is finite \(\varphi\)-agreement in English, for example, also 'relativized'?
  - we’re not used to thinking about it in these terms;
  - interrogative \(C^0\) will "skip" a DP unless that DP bears \([(+)\text{wh}]\) —
    - while Infl\(^0\) in English can target any DP
      (provided that it’s the closest accessible DP under IDS)

But...
  ➢ Infl\(^0\) in English does "skip" certain phrases — examples?

  All probing is relativized.

What's good for [wh] is good for [Group] & [Participant], too

➢ If so, then:
  We don’t really need any new theoretical apparatus to derive omnivorous agreement
  - of the kind we’ve seen in K’ichean AF
What’s good for [wh] is good for [Group] & [Participant], too

- Suppose, for example, that \( \#^0 \) (the number probe) in K’ichean is relativized to [Group]:

\[
\begin{align*}
(26) \ a. \ [\#^0 [\text{them}][\text{Group}] V^0 [\text{him}]] \\
& \quad \rightarrow [\#^0 [\text{them}][\text{Group}] V^0 [\text{him}]] \\
& \quad \quad \quad \quad \rightarrow \text{ja } \text{rje’} \ x-e-tz’et-\ddot{o} \ \text{rja’} \\
& \quad \quad \quad \quad \quad \quad \text{FOC them COM-3pl.ABS-see-\text{AF} him} \\
& \quad \quad \quad \quad \quad \quad \text{‘It was them who saw him.’} \quad [= (14a)]
\end{align*}
\]

b. \( [\#^0 [\text{him}] V^0 [\text{them}][\text{Group}]] \)

\[
\begin{align*}
& \quad \rightarrow [\#^0 [\text{him}] V^0 [\text{them}][\text{Group}]] \\
& \quad \quad \quad \quad \rightarrow \text{ja } \text{rja’} \ x-e-tz’et-\ddot{o} \ \text{rje’} \\
& \quad \quad \quad \quad \quad \quad \text{FOC him COM-3pl.ABS-see-\text{AF} them} \\
& \quad \quad \quad \quad \quad \quad \text{‘It was him who saw them.’} \quad [= (14b)]
\end{align*}
\]

What’s good for [wh] is good for [Group] & [Participant], too

- NOTE: this assumes that at the relevant stage in the derivation, \( \#^0 \) is located above both the subject & the object
  - this is a plausible assumption given what we know about the clausal syntax of these languages

Analysis

(27) BASIC CLAUSE STRUCTURE IN K’ICHÉAN AF

\[
\begin{align*}
\#P \quad \text{number probe} \\
\pi P \quad \text{person probe} \\
[\text{Group}] \\
\pi^0 \\
[\text{Pcpt.}] \\
\ldots \\
\text{SUBJ} \\
\ldots \\
V^0 \\
\text{OBJ}
\end{align*}
\]
(28) **STEP 1: PROBING FOR [PARTICIPANT]**

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

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

- ASSUMPTION: whichever nominal $\pi^0$ “hits” undergoes **clitic doubling**

(This is not completely ad hoc; it is, in fact, the same assumption used by Béjar & Rezac 2003 to account for the Person Case Constraint.)

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(29) **STEP 1.5: CLITIC DOUBLING OF PROBED-BY-$\pi^0$ PHRASE**

a.

b.

- Clitics are reduced pronouns
  - *we might* expect them to look that way (at least sometimes)
  - *we (definitely) expect them to behave monolithically w.r.t. $\varphi$-sets
    - a.k.a., the **featural coarseness of clitic doubling**
Analysis

➢ RECALL:

(16) $1SG \Rightarrow 3PL$

a. ja yin x-in-ax-an rje'
   FOC me COM-1sg.ABS-hear-AF them
   'It was me that heard them.'

b. ja rje' x-in-ax-an yin
   FOC them COM-1sg.ABS-hear-AF me
   'It was them that heard me.'

(17) $1PL \Rightarrow 3SG$

a. ja roj x-oj-ax-an rja'
   FOC US COM-1pl.ABS-hear-AF him/her
   'It was us that heard him/her.'

b. ja rja' x-oj-ax-an roj
   FOC him/her COM-1pl.ABS-hear-AF US
   'It was him/her that heard us.'

What about cases where both arguments are 3rd person?
  o by the same relativized probing logic:
    - both arguments will be skipped by $\pi^0$

➢ RECALL:

(15) (BOTH ARGS 3SG)

a. ja ri tz'i' x-∅-etzel-an ri sian
   FOC the dog COM-3sg.ABS-hate-AF the cat
   'It was the dog that hated the cat.'

b. ja ri xoq x-∅-tz'et-∅ ri achin
   FOC the woman COM-3sg.ABS-see-AF the man
   'It was the woman who saw the man.'
Analysis

- Note that, on this analysis, the overt 1st/2nd person ‘markers’ are not the exponents of valued feats on \( \pi^0 \)
  - we never see the latter
- Conceivably, this is an idiosyncratic matter . . .
- But let us suppose that this is a more general rule:

\[(30) \textit{morphological competition in Mayan ABS slot} \]

\hspace{1cm} a. the overt exponents of \( \pi^0 \), \#^0, and any clitics adjoined to them, all compete for a single morphological slot

\hspace{1cm} b. a clitic will always beat out other competing morphological material

Analysis

There is evidence for rule (30) from elsewhere in Mayan —

- In Tzotzil, a Mayan language not of the K’ichean branch:
  - \textbf{PERSON} agreement morphology can be prefixal or suffixal
  - the general-purpose plural morpheme (-ik) is always a suffix
  - When person agreement is suffixal—and only then—it preempts the appearance of the plural suffix (Aissen 1987, Woolford 2011)
    - so, e.g., the suffixal version of 2pl bleeds the appearance of -ik

Analysis

- Given rule (30): the exponent of \#^0 can only surface when clitic doubling has not occurred
  - when both arguments are 3rd person (\( \equiv [\text{Pcpt.}] \)-less)
Analysis

(31) **STEP 2: PROBING FOR [GROUP]**

a. **PL SUBJECT, SG OBJECT**

b. **SG SUBJECT, PL OBJECT**

- Importantly, (31a–b) happen regardless of whether the arguments are or aren’t 3rd person (≡ don’t bear [Pcpt.], or do)
  - but we can only see e’- (“pl-”) provided that both arguments are 3rd person

Interim summary

- We have now derived:
  1. the so-called “salience hierarchy” effects
     - now an emergent property of:
       - separate probing for PERSON and NUMBER
       - the *featural coarseness of clitic doubling*
       - morphological competition between clitics and functional heads in Mayan
  2. the fact that it is the formal, rather than general-cognitive, properties of an expression that matter for agreement
  3. the fact that the agreement markers that arises for 1st/2nd person look like pronouns (⇐ because they are clitics)
     - while those that arise for 3rd person do not (⇐ because they are the spellout of values on #^{0})
Interim summary

- Now recall:

\[(28) \text{STEP 1: PROBING FOR [PARTICIPANT]}
\]

\[a. \text{1ST/2ND PERSON SUBJECT, 3RD PERSON OBJECT}
\]

\[b. \text{3RD PERSON SUBJECT, 1ST/2ND PERSON OBJECT}
\]

\[
\Rightarrow \text{in AF, } \pi^0 \text{ only ever agrees with one DP}
\]

\[
\Rightarrow \text{if we assume that [Participant]-bearers must be agreed with (Anagnostopoulou 2003, Béjar & Rezac 2003, a.o.):}
\]

\[
\Rightarrow \text{at most one of the two DPs can be [Participant]-bearing (≡ 1st/2nd person)}
\]

Interim summary

⇒ Thus:

\[(iv) \text{we have derived the AF Person Restriction}
\]

- All that’s left is to explain why the so-called “hierarchy” effects arise only in AF
  - and nowhere else in the language
- We won’t have time to go into this in any detail; in a nutshell:
  - recall that these \(\pi^0\) and \(#^0\) probes are basically what we used to call “Infl”
  - Coon, Mateo Pedro & Preminger 2014: in normal K’ichean transitives, the ABS argument moves out of the vP phase
    - and into the domain of “Infl”
  - whereas in AF, there is no verb-phrase-level phase boundary
  \(\Rightarrow\) both DPs are in the domain of the relevant probes

Interim summary

⇒ in other words, ABS agreement in K’ichean AF is always ‘omnivorous’ —
  - it’s just that sometimes (namely, in regular transitives), this omnivorousness ranges over a single DP
Overview

- There are various conclusions one can draw from the analysis of ϕ-agreement in K’ichean AF;
- Here are the ones I want to touch on specifically:
  (i) the status of failed probing
  (ii) the nature of valuation

Failed probing ⇒ “crash”?

- One thing we have not discussed in any detail so far:
  - What happens when a probe looking for a feature [f] scans its c-command domain, and doesn’t find any [f]-bearing XP?
  - There’s a robust tradition here that we haven’t really discussed in this course —
    - which assumes that probing is obligatory because probes come into the world in a “toxic” state . . .
      - e.g. bearing uninterpretable features (Chomsky 1995 et seq.)
    - . . . and what valuation does is remedy this “toxic” state
      - e.g. deleting/checking uninterpretable features

Failed probing ⇒ “crash”?

- there’s a lot behind this, with roots all the way back in the transition from transformations to move α
  - in the wake of Chomsky & Lasnik’s (1977) paper “Filters & Control”
- if you’re interested in the history of these ideas, I have written up a version of it (Preminger 2018)
  - which I’d be glad to give you access to
Failed probing ⇒ “crash”?

• But what I want to focus on here is the empirical question, repeated here —
  ➢ What happens when a probe looking for a feature [\( f \)] scans its c-command domain, and doesn’t find any [\( f \)]-bearing XP?

• In fact, you already have everything you need to answer this question:
  RECALL:
  o to capture the omnivorous agreement effects in K’ichean AF, we had to assume that
    (which we called \( \pi^0 \) and \( \#^0 \))
    — scan for [Participant] and [Group], respectively
  o but you also saw that AF clauses in which neither argument bears these features
    are not problematic —

Failed probing ⇒ “crash”?

(32) \((\text{BOTH ARGS 3SG})\)

a. ja \( r i \) tz’i’ x-∅-etzel-an \( r i \) sian
   FOC the dog COM-3sg.ABS-hate-AF the cat
   ‘It was the dog that hated the cat.’

b. ja \( r i \) xoq x-∅-tz’et-∅ \( r i \) achin
   FOC the woman COM-3sg.ABS-see-AF the man
   ‘It was the woman who saw the man.’

• If we relax the assumption that the probes in K’ichean AF are relativized to [Participant] and [Group] —
  o we lose the account of omnivorous agreement

⇒ The probes in (32) have not located any eligible goals.
  o and yet these sentences are perfectly okay…

Failed probing ⇒ “crash”?

⇒ So it cannot be the case that failed probing gives rise to a “crash” or ungrammaticality (contra Chomsky 1995, 2000, \( \text{et seq.} \))

• Instead, probing looks much more like a good ol’ Obligatory Transformation —
  o obligatory where possible;
  o and ignored elsewhere.
(see Preminger 2014, 2018 for a much more extensive discussion)
Valuation in a feature-geometric world

- The second consequence I want to note concerns the nature of 'valuation' —
  - that thing that happens when a probe does find a goal bearing the kind of feature(s)
  - it was looking for

- Earlier in the course, we discussed two possible models for this:
  1. (i) copy-and-(over)write (the traditional model)
  2. (ii) feature-sharing (recall the example of case-concord in Ancient Greek)

- Now notice that both of these models still assumed that the nature of individual
  - features (or perhaps: feature classes, e.g., PERSON) was flat
  - essentially, an attribute-value pair of the following sort:
    (33) \( f : \square \), or \( f : \text{val} \)

➢ This is well suited for something like \( pl : + \) vs. \( pl : - \)
  - or \( \text{pers} : 1 \) vs. \( \text{pers} : 2 \) vs. \( \text{pers} : 3 \)

➢ But if this is no longer what we think \( \phi \)-features look like...
  - ... then our model of valuation has to be amended somehow

➢ What gets copied/shared(/whatever) can no longer be a set of "\( f : \text{val} \)"-style pairs

➢ To make matters more interesting, we have lost the representational distinction
  - between valued & unvalued features (!)
  ➢ Have you noticed?
Valuation in a feature-geometric world

- When we discussed feature-sharing, I showed you the following diagram:

\[ \begin{aligned}
\text{probe} & \quad \text{goal} \\
\text{probe} & \quad \text{goal} \\
\text{//} & \quad \text{//} \\
\text{goal} & \quad \text{goal}
\end{aligned} \]

[cf. Frampton & Gutmann 2006:128]

- If we make this slightly less abstract, we see clearly that there is an implicit choice-point here:

\[ \begin{aligned}
\text{Infl} & \quad \text{DP} \\
\text{Infl} & \quad \text{DP} \\
\text{//} & \quad \text{//} \\
\text{Infl} & \quad \text{DP}
\end{aligned} \]

(35) a.

\[ \begin{aligned}
\text{Infl} & \quad \text{DP} \\
\text{Infl} & \quad \text{DP} \\
\text{//} & \quad \text{//} \\
\text{Infl} & \quad \text{DP}
\end{aligned} \]

b.

\[ \begin{aligned}
\text{Infl} & \quad \text{DP} \\
\text{Infl} & \quad \text{DP} \\
\text{//} & \quad \text{//} \\
\text{DP} & \quad \text{DP}
\end{aligned} \]

- This is once again an empirically consequential choice —
  - if we let the system do (35a) instead of (35b):
    - agreement between Infl\(^0\) and any DP would result, regardless of the DP’s initial features, in 3rd person singular morphology

\[ \text{\textgreater}\text{ more damagingly, it would result in the DP’s own features being changed to 3rd person singular (!) } \]

- In Preminger 2017, I argued against several putative solutions to this quandary:
  - comparing the two pre-existing feature-structures/geometries, and choosing the more marked one as the to-be-shared one
  - c-command: since probes always have to c-command their goals, we could always choose the feature-structure/geometry borne by the lower of the two operands as the to-be-shared one
  - a diacritic (e.g., Infl\(^0\) borne with an “I’m a probe” diacritic, thus doesn’t get its pre-existing feature-structure/geometry shared)
Valuation in a feature-geometric world

⇒ Solution:

(36) **FEATURE-GEOMETRIC UNION**

Let \( x \) and \( y \) be two feature-geometric representations. \( z = \text{union}(x, y) \) is defined as follows:

(i) for \( r \), the absolute root\(^1\) of the feature geometry:
\[
    r \in z;
\]

(ii) for every feature-geometric node \( n \in z \), and for every node \( d \) that is a feature-geometric dependent of \( n \):
\[
    d \in z \iff d \in x \text{ or } d \in y.
\]

E.g. Harley & Ritter’s (2002) referring expression node.

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Valuation in a feature-geometric world

- The output of this operation is guaranteed to be a well-formed feature geometry
  - i.e., no dependent features without their parent features present in the output
- That's because if a node \( d \) is present in the output of \( \text{union}(x, y) \):
  - it follows that \( d \) was present in \( x \) or in \( y \)
  - let’s say, without loss of generality, that \( d \) was present in \( x \)
  - if \( d \neq r \) (i.e., \( d \) is not the root of the geometry), then it follows that:
    - \( n \), the parent node of \( d \), was also present in \( x \)
  - \( \Rightarrow n \) will also be part of \( \text{union}(x, y) \).

---

Some typological claims, and their consequences

The typology of omnivorous agreement

- Suppose that you buy everything that I’ve said so far
- That is, that omnivorous agreement of the K’ichean kind is best handled in terms of relativized probing
  - and in particular, relativized probing for marked features in the \( \varphi \)-feature geometry
    - ([Participant] and [Group])
- The \( \varphi \)-feature geometry is then vindicated, as a theory of the universal structure of \( \varphi \)-features in syntax, to the extent that:
  - it predicts the correct crosslinguistic typology of omnivorous \( \varphi \)-agreement effects.
The typology of omnivorous agreement

- Here's why:
  - recall the move from [±labial], to a system of [labial] vs. the absence thereof (∅);
  - in the same vein, it turns out that there are no processes in natural language syntax that target all-and-only non-wh phrases (see Richards 2010 for a discussion of some putative counterexamples—including Basque!—and their reanalysis in prosodic terms)
  ⇒ which is naturally captured if [wh] is like [labial]:
    - there's no [±wh];
    - only [wh] or absence thereof (∅).

The typology of omnivorous agreement

- If we were to discover that there is never omnivorous agreement for 3rd person (≡ non-[Participant]) or singular (≡ non-[Group])—
  - it would be naturally captured by assuming a Harley & Ritter / McGinnis type of representation for ϕ-features in syntax
  ⇒ So is this true of the typology of omnivorous agreement?
    - while omnivorous agreement seems like it's perhaps an "exotic" phenomenon, it is not all that rare
      - occurring in many different language families:
        · K'ichean, Kartvelian, Algonquian, Uto-Aztecan, ...
        · the most common type of omnivorous agreement one finds is for plural (≡ [Group])
          - e.g. in Georgian, Nahuatl, ..., and also K’ichean!
            (see Baker 2008, 2011, Nevins 2011; as well as Preminger 2014)

The typology of omnivorous agreement

- there is also omnivorous agreement for 1st/2nd person (≡ [Participant])
  - as you have seen in this course

- But…
  ➢ I know of no credible cases of omnivorous agreement for singular (≡ non-[Group])
  ➢ and I know of one case that has been claimed to instantiate omnivorous agreement for 3rd person (≡ non-[Participant]) —
    - namely, Trommer 2008 on Menominee (Algonquian)
Trommer (2008) on Menominee

- The putative problem put forth by Trommer centers around data like the following:

(37) **Menominee third person marking (independent order)**

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>ne- po-se- m</td>
<td>d.</td>
<td>ne- na-n-ek- w</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-</td>
<td>embark- [+Pcpt]</td>
<td>1-</td>
<td>fetch-dir- [−Pcpt]</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘I embark.’</td>
<td></td>
<td>‘He fetches me.’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>ke- po-se- m</td>
<td>e.</td>
<td>ne- na-n-a- w</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-</td>
<td>embark- [+Pcpt]</td>
<td>1-</td>
<td>fetch-dir- [−Pcpt]</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘You (sg.) embark.’</td>
<td></td>
<td>‘I fetch him.’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>po-se- w</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>embark- [−Pcpt]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘He embarks.’</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- as glossed, this requires reference to “[−Pcpt] on either argument” —
  - a problem for a Harley & Ritter / McGinnis type of representation

➢ However, the Menominee data can also be handled by assuming that, as far as the syntax is concerned, there are two such suffixes —

(38) **Prefix-Verbstem-ObjSuf-SubSuf**

- and that forms like -w and -m are the result of morphological fusion between these two “proto”-suffixes

- the rules of fusion will still have to make reference to “[−Pcpt]”
  - as in, [−Pcpt] ∈ {ObjSuf, SubSuf} → -w

- but this will now occur in the morphology, not in the syntax

- Before discussing why this is any better (if at all), let’s return to K’ichean for a moment…
(Lack-of-)Adjacency in K’ichean

- K’ichean has a set of motion-related particles that, in a normal transitive, occur between the subject- and object-agreement markers:

  (39) x-at-b’e-ru-tz’êt-a’
  
  COM-2sg.abs-DIR-3sg.erg-see-TV DET CL Pedro
  
  ‘Pedro went to see you.’

- These particles can also occur in AF clauses, and they do not interfere with AF agreement morphology in any discernible way:

  (40) a. ja ri a Pedro x-at-b’e-tzet-ö
  
  FOC DET CL Pedro COM-2sg.abs-DIR-see-AF
  
  ‘It was Pedro that went to see you(sg.).’

  b. ja rat x-at-b’e-tzet-ö ri a Pedro
  
  FOC you(sg.) COM-2sg.abs-DIR-see-AF DET CL Pedro
  
  ‘It was you(sg.) that went to see Pedro.’

⇒ A theory of agreement morphology in K’ichean AF cannot be based on:
  
  ◦ fusion of adjacent (“proto”-)affixes under adjacency

- As far as I can tell, though, a theory of these Menominee suffixes can be based on exactly that
  
  ➢ Why does this matter…?
References
