

Meaningful Agreement Features: Evidence from indexical binding

We defend the hypothesis that number and person agreement feature values (on T, but with wider relevance) can have semantic import. We first illustrate that number features on T in the case of conjoined subjects can encode a presupposition about the cardinality of the subject's denotation. We then discuss the interaction between indexical binding and agreement in French and English (see Kratzer 2009, Wurmbrand 2017, Charnavel & Sportiche 2024, i.a.) to support the hypothesis that person agreement can have semantic import too, corroborating evidence for semantic agreement being a Spec/Head process (see Sportiche 2016, Smith 2021, i.a.). We finally propose that unlike number (or gender) agreement features, person features are always semantically interpreted.

Number: Agreement in the following examples from Charnavel (2010) codes how the conjunction is interpreted: as a group in (a), as ambiguous in (b) (depending on whether *each* > *and* or *and* > *each*, and on the nature of the VP – distributive vs. collective) and as a singleton in (c) and (d):

- (1) a. [A man and a woman] {have/*has} laughed (*distributive*) / {have/*has} danced together (*collective*)
 b. [Each man and each woman] {?have/has} laughed / {have/*has} danced together.
 c. [A devoted father and an efficient boss] is being celebrated today.
 d. [The devoted father loved by all and the efficient boss that we respected] is being celebrated today.

These subjects lacking syntactic differences (and the * in (a) excluding an RNR analysis), we interpret this paradigm as showing that the number feature value on T can trigger a presupposition, not about its denotation as for a DP, a non-sensical option for T, but about the denotation of the agreement trigger.

Indexical binding and person agreement in French: Charnavel & Sportiche (2024) observe a correlation between indexical binding and person agreement in French relative clauses (RC), which they derive based on the hypotheses that (indexical) binding requires match in (person) presupposition between the *wh*-trace *t* and the bound pronoun.

- (2) a. Je suis le seul qui *t* {i. **suis** /ii. # **est**} fier de **mes** enfants.
 b. Je suis le seul qui *t* {i. # **suis** /ii. **est**} fier de **ses** enfants.
 'lit. I am the only one who {i. **am**/ii. **is**} proud of {a. **my**/b. **his**} kids.'

Intended bound reading: the others are not proud of their kids. [ok under a-i and b-ii]

Here, we further specify the nature and conditions of person agreement and indexical binding in French RC, leading us to argue that person agreement is a semantically-based Spec-Head process.

First, we specify that 1P (or *mutatis mutandis* 2P) agreement in RC requires the following conditions:

- The RC head noun must be null, suggesting that it should not be lexically specified for person:

- (3) Je suis {a. le seul/celui vs. b. *le (seul) **étudiant**} qui **suis** belge.

'lit. I am {a. the only **one**/the **one** vs. b. the (only) **student**} who **am** Belgian.'

- the RC must occur in value-initial specificational sentences (cf. Ivan & Mirrazi 2019, Bassi 2021), suggesting that its head is specified for person through a semantic process involving predication and focus:

- (4) Je {a. suis/ b. *connais} le seul qui **suis** belge. × QUD for 4a: What is your specificity?

'lit. I {a. am/ b. *know} the only one who **am** Belgian.' ✓ QUD for 4a: Who is Belgian here?

- (5) Le seul qui {a. ***suis**/b. **est**} belge, c'est moi. 'lit. The only one who {a. ***am**/b. **is**} Belgian, it's me.'

Based on the hypothesis that *wh*-elements are unspecified for person (see Douglas 2015, den Dikken 2019) as independently motivated by e.g. (9), we conclude from (3)-(5) that the embedded DP *wh*-subject trace *t* in (3) can at LF be understood as first person - as shown by 1st person agreement - if the relevant conditions are satisfied (e.g. binding by 1st person/specification).

But this is insufficient: indeed, we newly observe a strong contrast in the availability of (local or long distance) indexical binding in French RC depending on whether the binder is a clausal subject or not: indexical binding is degraded when the binder is an object or subject of non-TP (controlling for WCO).

- (7) a. Je suis le seul **qui** suis fier de **mes** enfants. 'I am the only one **who** is proud of **my** kids.'

b. # Je suis le seul **qu'**on compare à **mes** enfants. 'I am the only one **that** they compare to **my** kids.'

Intended: nobody else is proud of their kids/is compared to their kids.

- (8) a. Je suis le seul **qui** suis content que **mes** enfants soient là.

b. # Je suis le seul **à qui** on a annoncé que **mes** enfants étaient là.

'I am the only one {a. **who** is happy that / b. **to whom** they announced that} **my** kids are here.'

Intended: nobody else is happy/has been told that their kids are here.'

This is not predicted by any existing theory: Sauerland (2013) (cf. Jacobson 2012) does not impose any constraint on the configuration hosting the bound pronoun as long as it is in focus alternatives; Kratzer

(2009) requires a *v* binder locally (for feature transmission), but not long distance (due to context shifting); Charnavel & Sportiche (2024) only require the binder to be focused.

We conclude from (7)-(8) that an unspecified *wh*-trace that should otherwise acquire 1st person meaning via binding/specification as in (3) can only do so when **licensed** by person agreement on T. This means agreement on T does not just **reflect**, but **licenses** person presupposition on its specifier. This means that person agreement must have independent semantic import: we therefore take α person agreement on T to be able not only to trigger a presupposition that the subject is interpreted with α person semantics, but also to license such an interpretation on DPs that are syntactically unmarked for person but derive their 1st pers. semantics at LF. Note that ‘licensing’ here means ‘allowing’: the following are out because the subject lacks interpretive 1st pers. semantics (even if in (10), the subject does denote the speaker):
(9) *Qui **sommes-1PL** venus ? ‘who have come?’ [*even if the speaker is presupposed to have come]
(10) L’auteur de ce résumé {a. ***suis**/b. **est**} linguiste. ‘The present author {a. *am/b. is} a linguist.’
Interestingly but beyond the scope of this abstract, binding is different (e.g. ✓*the present authors have discussed among ourselves various reasons* - attested), where only referential covaluation matters.

Person agreement and semantic agreement: Sportiche (2016) and Smith (2021) have independently argued that semantic agreement (sensitive to the denotation of the subject rather than, pace Smith, to its syntactic features) must be Spec/Head and hold at LF. This generalization follows if semantic agreement on T, for person or number, triggers a presupposition on its specifier, hence at LF (since presuppositions are LF properties). This blocks reconstruction of a semantically person or number agreeing subject:

(11) Une majorité d’entre nous { i. est-**3Psg** / ii. sont-**3Ppl** / iii. sommes-**1Ppl** } susceptibles d’être là.
‘Most of us are likely to be there.’ [the speaker must be there under iii]

(12) Deux bons tiers d’entre nous {i. sont-**3Ppl** / iii. sommes-**1Ppl** } susceptibles d’être là.

‘Two good thirds of us are likely to be there.’ [the speaker must be there under iii]

in all: ✓ *subject* > *likely* *in ii. and iii:* ✗ *likely* > *subject*.

(Sportiche, 2016, for (11))

Here, the subject is syntactically 3rd prs.sg. in (11i) and 3rd prs.pl. in (12i), and semantically both 1st prs. and pl. in (11ii) and semantically only 1st pers. In (12iii). As indicated, reconstruction is blocked iff T triggers either a number presupposition (11ii), a person presupposition (12iii) or both (11iii) on its subject (which can end up with 1st person semantics at LF due to the presence of *nous/us*), a consequence of the subject having to be interpreted in SpecTP.

Data such as *there’s always me* / **there {am/’m} always me* support the stronger hypothesis that person agreement is always semantic, triggering a person presupposition. This is consistent with Baker’s (2008, 2011) SCOPA, or den Dikken’s (2019) argument, to the effect that person agreement always requires a Spec/Head licensing configuration. This is also consistent with neural evidence (from ERP and fMRI experiments) showing that violations of person (but not syntactic number) agreement induce e.g. N400 effects usually associated with interpretative problems (Mancini et al. 2011, 2017).

Indexical binding and agreement in English

English exhibits similar conditions on indexical binding in RC, but no variable person agreement:

(13) I am the only i. one who {***am/is**} with {my/his} kids /ii. {**one/#student**} who is with my kids.

(14) #The only student who is proud of my kids is me.

(15) #I am the only one who Victor compared to my kids.

(16) a. I am the only one who said to David that my kids have arrived.

b. #I am the only one to whom David said that my kids have arrived.

From this, we conclude that just as in French, unspecified *wh*-traces can acquire person presupposition at Spec TP and thereby bind indexicals. But for understood reasons, English differs from French in only marginally allowing morphological person agreement, e.g. in appositives or clefts but not in restrictive RCs (Akmajian 1970, Morgan 1972: e.g. (i) *I, who **am** tall, was forced to squeeze into that VW*; (ii) *It is {% I/*me} who **am** responsible*). This lack of competition between person exponence in RC leads to the assumption that 3rd person agreement on T in English RCs is compatible with any person presupposition, thereby licensing person semantics on the *wh*-trace binding the indexical in (13i).

Selected references: Akmajian 1970: On deriving cleft sentences from pseudo-cleft sentences. *LI* 1(2), 149-168; Charnavel & Sportiche 2024: Indexical binding, presupposition and agreement. *SuB28*; den Dikken 2019: The attractions of agreement: Why person is different. *Frontiers in psychology* 10, art. 978; Kratzer 2009: Making a pronoun: fake indexicals as windows into the properties of pronouns. *LI* 40: 187-237; Sauerland 2013: Presuppositions and the alternative tier. In *SALT* 23: 156-73; Smith 2021: *Morphology-semantics mismatches and the nature of grammatical features*. de Gruyter.