

# « Je t'aime. – Moi aussi (je t'aime). » Supersloppiness from a French perspective

Isabelle Charnavel  
University of Geneva  
[isabelle.charnavel@unige.ch](mailto:isabelle.charnavel@unige.ch)



Received: 15-11-2022

Accepted: 16-09-2023

Published: 15-12-2023

How to cite: Charnavel, Isabelle. 2023. « Je t'aime. – Moi aussi (je t'aime). » Supersloppiness from a French perspective. In *Trending topics in Romance linguistics*, eds Roberta Pires de Oliveira & Cilene Rodrigues. Special issue of *Isogloss. Open Journal of Romance Linguistics* 9(4)/9, 1-33.

DOI: <https://doi.org/10.5565/rev/isogloss.292>

## Abstract

---

In dialogs like “I love you – I do too”, the pronoun in the ellipsis site can be interpreted as dependent on the preceding overt pronoun (i.e. *I do love you too*). This dependency can neither be explained by Kaplan’s (1977/1989) theory implying the fixity of indexicals, nor by the various theories of bound indexicals: due to mismatch in person features, the identity in the ellipsis is not sloppy, but supersloppy in such cases. Based on experimentally collected English data, I proposed in Charnavel (2019) to reduce supersloppy readings to sloppy readings by hypothesizing that indexicals can be interpreted as context-dependent descriptions containing a bindable pronoun, i.e. as indexical e-type pronouns (e.g. *you* as *my interlocutor*). But due to some limitations in my English data, I left open two interrelated issues: (i) whether supersloppy readings, like sloppy readings, rely on focus blindness to presuppositions of bound pronouns; (ii) whether supersloppy readings can be analyzed in the same way in ellipsis and focus constructions. I here use novel French

data to settle these two issues partly based on some morphosyntactic specificities of French. By clarifying the analysis of supersloppy readings, this provides new insight into the theories of indexicals and e-type pronouns.

**Keywords:** indexical, sloppy/strict readings, e-type pronoun, person feature, French.

## 1. Introduction

As shown in Charnavel (2019), examples such as (1), which contain indexical pronouns in ellipsis constructions, challenge existing theories of indexicals.

- (1) a. *Romeo to Juliet*: “I love you.”  
 b. *Juliet to Romeo*: “I do too.”

Pronouns involved in ellipsis constructions famously give rise to an ambiguity between strict and sloppy readings. But the most obvious interpretation of Juliet’s reply in (1)b, i.e. *I love you too*, seems to correspond to neither. Under a strict reading, the referent of the elided pronoun is the same as the referent of the antecedent pronoun; under this reading, the elided pronoun in (1)b thus refers to Juliet, just like *you* in (1)a, yielding a pedantic reply (cf. *I love me/myself too*). Under a sloppy reading, the pronoun must be bound in the antecedent; but due to feature mismatch, *you* can’t seem to be bound by *I*. The identity required between the ellipsis site and the antecedent seems even sloppier in the presence of indexicals, under what I called supersloppy readings.<sup>1</sup>

In Charnavel (2019), I proposed that supersloppy readings can in fact be reduced to sloppy readings under the hypothesis that person indexicals can be construed as e-type pronouns containing the context-dependent description *interlocutor*. *I love you* in (1)a can thus be interpreted as *I love my interlocutor*, where *my* is bound by *I*, thereby licensing a sloppy reading in (1)b. This analysis implies that supersloppy readings raise a double challenge to Kaplan’s (1977/1989) fixity theory of indexicals: not only can indexicals be bound, they can also be interpreted as descriptions. At the same time, such readings also reveal, according to this hypothesis, that as argued by Kaplan, context dependency (which restricts the hidden description *interlocutor*) remains a crucial property of indexicals, which affects the availability of e-type construals.

This analysis, which we will review in section 2, is based on experimentally collected English data. But as explained in Charnavel (2019), some limitations of the data led me to leave two issues open. First, what is the status of person features in the ellipsis site under supersloppy readings? Person features of bound pronouns are often treated as uninterpreted in the ellipsis site under sloppy readings, but as we will see, the English data pertaining to this issue under supersloppy readings remain inconclusive. Second, how should supersloppy readings be analyzed in constructions involving focus particles such as *only*, given the availability of double focus there?

<sup>1</sup> From a phonological viewpoint, the identity may seem strict here (it is the string *love you* that we seem to interpret in both the antecedent and the ellipsis site). But a hypothesis adopting this notion of identity makes incorrect predictions (see fn. 2).

The goal of this paper is to settle these two issues on the basis of novel experimentally collected French data, some of which exploit specific morphosyntactic properties of French. In section 3, we will thereby clarify the analysis of supersloppy readings, thus providing new insight into both the theory of indexicals and the theory of e-type pronouns. In particular, the French data will show that focus constructions behave like ellipsis constructions with respect to supersloppy readings, and that supersloppy readings behave like sloppy readings with respect to presupposition weakening, thus leading to a uniform analysis of sloppy and supersloppy readings in focus and ellipsis constructions.

## 2. The issue of supersloppy readings in English

The aim of this section is to review the main ideas and arguments of Charnavel's (2019) analysis of supersloppy readings, as well as the two problems it left open. This review will allow us to understand how the new French data presented in section 3 can resolve these problems and thereby refine the analysis of supersloppy readings.

### 2.1. The challenge raised by supersloppy readings

According to Kaplan's (1977/1989) influential theory, indexicals have a fixed reference: their interpretation only depends on the context parameter  $c$ , which cannot be manipulated by any logical operator. As shown in (2), the first person pronoun must thus refer to the speaker  $s$ , and the second person pronoun to the addressee  $a$ , of the actual context.

- (2) a.  $\llbracket I \rrbracket^{c,g,w} = s_c$   
 b.  $\llbracket you \rrbracket^{c,g,w} = a_c$

The fixity hypothesis is motivated by contrasts such as (3)a vs. (3)b, where the description *the speaker*, unlike the indexical pronoun *I*, can be interpreted in the scope of the world quantifier *necessarily*: *I* in (3)a rigidly denotes the speaker of the actual context, while *the speaker* in (3)b can denote whoever might be the speaker in other worlds (see review in Schlenker 2018, i.a.).

- (3) a. I am necessarily right.  $\times$  *necessarily* > *I*  
 b. The speaker is necessarily right.  $\checkmark$  *necessarily* > *the speaker*

Under this theory, indexicals in ellipsis constructions can give rise to strict readings (cf. Sag & Hankamer 1984) if we assume, as is standard, that what is recovered in the ellipsis site is the denotation. For example, the strict reading in (1)b obtains if we copy the VP in (1)a interpreted as in (4), i.e. as the property of loving Juliet.

- (4)  $\llbracket love\ you \rrbracket^{c,g,w} = \lambda x. x\ love\ a_c = \lambda x. x\ love\ Juliet$

Sloppy readings such as (5) (cf. Heim 1991), however, cannot arise under these hypotheses, given that they require binding of the antecedent pronoun; indexicals cannot be bound under the fixity hypothesis, as shown in (2) where *I* and *you* do not depend on the assignment function.

(5) I did my homework, but my classmates didn't. [ $\checkmark$  do their homework]

Kaplan's analysis can nevertheless predict supersloppy readings as long as we assume that instead of the denotation, what Kaplan calls the character can alternatively be recovered in ellipsis sites. For (1)b, this means that the elided VP can be interpreted as the property of loving the addressee of the context (see  $\lambda x. x \text{ love } a_c$  in (4)). But crucially, this hypothesis overgenerates as illustrated in (6)b involving a third person DP above the ellipsis site.<sup>2</sup>

(6) a. *Romeo to Juliet*: "I love you."  
b. *Juliet to Romeo*: "Rosaline does not." [ $\times$  love you]

Here, Juliet's reply to Romeo cannot be interpreted as meaning that Rosaline does not love him (only the strict reading is available implying that Rosaline does not love Juliet). Thus, Kaplan's theory makes incorrect predictions regarding indexicals in ellipsis constructions irrespective of the identity condition hypothesized for ellipsis resolution: either it undergenerates (sloppy readings like (5) and supersloppy readings like (1)) or it overgenerates (some unattested supersloppy readings like (6)).

Additionally, it is well-known that Kaplan's theory of indexicals undergenerates not only in ellipsis constructions, but also in the complement of some attitude or speech verbs in some languages, as well as in constructions involving focus particles, as illustrated in (7) and (8) respectively.

(7) Zazaki (Anand & Nevins 2004)  
Heseni va ke ez dewletia  
Hesen.OBL said that I rich.be-PRES  
'Hesen<sub>i</sub> said that he<sub>i</sub> is rich.'

(8) English (Heim 1991)  
Only I did my homework.  
[ $\checkmark$  my classmates didn't do their homework]

Example (7), which illustrates indexical shift, pertains to the availability of context operators (considered by Kaplan to be monsters that cannot exist in natural languages), which is not directly relevant for our purposes (but see section 3.4). The other argument against fixity provided by example (8), however, is closely related to supersloppy readings as (8) instantiates a sloppy reading in a focus construction that parallels sloppy readings in ellipsis constructions like (5). Here, the focus particle *only* quantifies over alternatives that are asserted to be false (see e.g. Rooth 1985); given that only *I* is focused and associates with *only*, the construction of the intended

<sup>2</sup> The sign  $\times$  indicates that the bracketed interpretation is unavailable. Note that the same fact shows that assuming phonological identity as mentioned in fn. 1 cannot be the solution either.

alternatives requires binding of *my* by *I*. In both cases (5) and (8), indexicals thus appear to be bindable contrary to the predictions of Kaplan's fixity theory.

Kaplan's theory has been complemented or modified to account for such bound indexicals. But crucially for us, none of the existing analyses deriving sentences like (5) or (8) can predict supersloppy readings either. The first type of analysis (see e.g. Kratzer 2009) takes bound indexicals to be fake indexicals born as minimal pronouns that acquire their person features under binding at PF. The second type of analysis (see e.g. Sauerland 2013) considers bound indexicals as real indexicals whose person features denote presuppositions that can be ignored in focus alternatives. Under both types of hypotheses, indexical binding thus requires identity in features between the binder and the bindee. Supersloppy readings, which involve two indexicals differing in person features (see *I* vs. *you* in (1)a), are therefore not (straightforwardly) eligible for the mechanisms proposed by these analyses (i.e. feature transmission or presupposition weakening). In sum, all existing analyses of indexicals fail to derive supersloppy readings.<sup>3 4</sup>

## 2.2. Charnavel's (2019) solution

The key idea of Charnavel's (2019) solution to the problem is to reduce supersloppy to sloppy readings by allowing the interpretation of person indexicals as e-type pronouns containing a bindable variable. E-type construals have been famously proposed to derive the interpretation of so-called donkey sentences like (9) (see Geach 1962, Karttunen 1969, Evans 1977, 1980, Jacobson 1977, Cooper 1979, Elbourne 1986, Heim 1990, Elbourne 2001, i.a.).

(9) [Every man who owns [a donkey]<sub>k</sub>]<sub>i</sub> feeds it<sub>k</sub>. [it<sub>k</sub> ≈ the donkey that he<sub>i</sub> owns]

In (9), the interpretation of the pronoun *it* seems to depend on the quantifier *every man* although binding seems impossible due to feature mismatch. The most common solution to the problem consists in hypothesizing that *it* can be construed as an e-type pronoun, i.e. a pronoun containing a hidden description and a bindable variable (roughly, *the donkey owned by x*).

Similarly, I propose in Charnavel (2019) that the dependent interpretation of *you* in (1) obtains if *you* is construed as an e-type pronoun containing the context-dependent description *interlocutor* (called INTER in Charnavel 2019) as represented

<sup>3</sup> As mentioned in Charnavel (2019), supersloppy readings have been sporadically noticed in previous work (see Rebuschi 1994, 1997, Bevington 1998 and Chung 2000) and have been given a special treatment. See Charnavel's (2019: section 2) for a discussion and criticism of these previous proposals.

<sup>4</sup> As argued in Charnavel (2019), the theory of ellipsis resolution cannot be held responsible for the failure. As we just saw, modifying the identity conditions required for ellipsis (as e.g. phonological identity or character identity) overgenerates. In general, all solutions proposed to derive some possible mismatches (in tense, modality, type of DP) between the antecedent and the ellipsis site can't derive supersloppy readings (see e.g. Johnson 2001, Merchant 2001, 2013, i.a.). Furthermore, theories of ellipsis that do not rely on structural identity conditions (e.g. Hardt 1993) can't predict the structural dependent contrasts observed in supersloppy readings (see e.g. (12), see also Charnavel 2019: section 3.2).

in (10); the function INTER is context-dependent in the sense that it can only take the speaker and the addressee of the actual context as arguments as shown in (11).

- (10) a.  $[[I \text{ love you }]]^{c,g,w} = [[I_i \text{ love the INTER}(pro_i)]]^{c,g,w}$   
 b.  $[[I \text{ do too }]]^{c,g,w} = [[I_k \text{ do love the INTER}(pro_k) \text{ too }]]^{c,g,w}$

- (11)  $[[\text{INTER}]]^{c,g,w} = \lambda x. \lambda y. y$  is an interlocutor of  $x$ , where  $x$  and  $y \in \{s_c, a_c\}$

An immediate argument for this e-type hypothesis is the c-command requirement observed for supersloppy readings. The experimentally collected English data presented in Charnavel (2019) reveal that supersloppy readings can arise only if *you* is c-commanded by *I* in the antecedent: acceptability judgments for examples like (1), where *I* c-commands *you*, significantly contrast with those for examples like (12), where *I* does not c-command *you*.<sup>5</sup>

- (12) a. *Romeo to Juliet*: “The man I hate loves you.”  
 b. *Juliet to Romeo*: “The woman I hate does not.” [ $\star$  love you]

Furthermore, the specific form of the e-type hypothesis adopted here, which forces the hidden description to be the context-dependent function INTER, is motivated by the restricted availability of supersloppy readings. For example, we saw that Juliet’s reply in (6)b cannot be interpreted as meaning that Rosaline does not love Romeo; this is so even if the pragmatics of the situation (both Juliet and Rosaline are Capulets but Romeo belongs to the Montagues) would allow *you* to be construed as a dependent description as shown in (13)<sup>6</sup> (see Charnavel 2019 for similar, experimental data).

- (13) a. *Romeo to Juliet*: “You are my enemy, but I love you.” [ $\star$  I love my enemy]  
 b. *Juliet to Romeo*: “Rosaline does not.” [ $\star$  Rosaline does not love her enemy]

In (13)a, *you* is intended to be interpreted as an e-type pronoun containing the hidden description *enemy* (thus construing *Juliet* as Romeo’s enemy), which is intended to allow binding by *Rosaline* in the ellipsis site (thus construing *Romeo* as Rosaline’s enemy). But this construal is unavailable. In fact, similar data like (14) (from Jacobson 2012) have been provided to argue that e-type construals are

<sup>5</sup> Experimental details, including the protocol and the statistical analyses, can be found in Charnavel (2019) (see also the present Appendix presenting the experimental details of the French experiment, which used the same methodology). In the present paper, I will henceforth simply indicate two-way (or three-way) contrasts statistically supported for the English data using  $\star$  vs.  $\checkmark$  (or  $?$ ), which indicate that the bracketed interpretations are unavailable or available (or marginally available), respectively.

<sup>6</sup> The intended hidden description is here overtly inserted in the previous discourse (*you are my enemy*) to guarantee that the conditions for e-type construal are independently fulfilled (cf. debate on the formal link between pronoun and antecedent, see e.g. Heim 1990). See section 3.2 for some further discussion about this point.

generally precluded for indexical pronouns (see section 2.4 for a comparison between constructions involving ellipsis and those involving focus particles).

- (14) This year everyone was supposed to bring their spouse, but only Michael brought me [ $\times$  his spouse].

Instead of drawing this conclusion from such data, I argue in Charnavel (2019) that e-type construals are possible for indexicals, but restricted because of their indexicality: indexicals can be construed as e-type pronouns only if they remain indexical under that construal; that's why the hidden description must be indexical itself and thus be restricted to INTER (see section 3.3 for a refinement of this hypothesis). This restriction licenses supersloppy readings only in adequate configurations such as (1) or (15).

- (15) a. *Romeo to Juliet*: “Do you love me?”  
b. *Juliet to Romeo*: “Do you?” [ $\checkmark$ love me]

In (15), just as in (1), the indexical pronoun is construed as dependent on another indexical pronoun: *me* is interpreted as *your interlocutor* in (15), just like *you* is interpreted as *my interlocutor* in (1). In both cases, the indexical is thus construed as an indexical e-type pronoun, in the sense that the hidden description (INTER) only relates members of the actual context. In (13)-(14), however, the intended hidden description does not only relate members of the actual context (Rosaline or Michael are not discourse participants).

### 2.3. First open issue: the status of person features in focus alternatives

In the previous subsection, we saw how supersloppy readings can be reduced to sloppy readings if we hypothesize that indexical pronouns can be construed as indexical e-type pronouns. A full analysis of supersloppy readings thus requires adopting an analysis of sloppy readings such as (5) or (8). As we mentioned in subsection 2.1, sloppy readings involving indexicals cannot be derived by Kaplan's fixity hypothesis. For that reason, the person features of bound indexicals have received a special treatment. Under morphosyntactic approaches such as Kratzer (2009), they are purely morphosyntactic features without any semantic content: bound indexicals are treated as fake indexicals acquiring the form of indexicals through feature transmission under binding. Under semantic approaches such as Sauerland (2013), the person features of bound pronouns are interpreted, but only in the ordinary meaning: they are treated as presuppositions that are ignored in focus alternatives. Given the mismatch in feature between the binder (e.g. *I* in (1)) and the bindee (e.g. *you* in (1)) and the relevance of the feature of the bindee for indexical e-type construal, the morphosyntactic approach cannot be (straightforwardly) adopted to account for supersloppy readings. The question is therefore how to adapt the semantic approach to these readings.

In Charnavel (2019), I propose to adopt the presuppositional component of the semantic analysis to derive supersloppy readings, but I do not reach a firm conclusion about the second component of the analysis regarding presupposition weakening in focus alternatives. Specifically, I adopt the approach amending

Kaplan's hypothesis by relegating the context dependency of indexicals to a presupposition (cf. Heim & Kratzer 1998, Schlenker 2003, Heim 2008, i.a.). As shown in (16) (vs. (2)), first and second person pronouns are treated like third person pronouns, i.e. as variables depending on the assignment function  $g$ , and their person features additionally trigger a presupposition restricting their referent to discourse participants, while third person pronouns only trigger gender or number presuppositions (Cooper 1983, i.a.).

- (16) a.  $\llbracket I_i \rrbracket^{c,g,w} = g(i)$  presupposition:  $g(i) = s_c$   
 b.  $\llbracket you_i \rrbracket^{c,g,w} = g(i)$  presupposition:  $g(i) = a_c$

Under Sauerland's (2013) semantic approach to sloppy readings of indexicals (cf. Jacobson 2012), these presuppositions can weaken in focus alternatives when they are triggered by bound pronouns as roughly represented in (17) (cf. (5)).

- (17) a.  $I_i$  [ $VP_1$  did  $my_i$  homework], but my classmates didn't [ $VP_2$  ... ].  
 b.  $\llbracket my_i \rrbracket^{c,g,w} = g(i)$  presupposition:  $g(i) = s_c$   
 c.  $\llbracket VP_1 \rrbracket^{c,g,w} = \lambda x. x$  do  $x$ 's homework ; presupposition:  $x = s_c$   
 d.  $\llbracket VP_2 \rrbracket^{c,g,w} = \lambda x. x$  do  $x$ 's homework ; ~~presupposition:  $x = s_e$~~

The sloppy interpretation of (5) thus requires interpreting the presupposition triggered by *my* ((17)b) only in the antecedent ((17)c), but not in the ellipsis site ((17)d), under the standard assumption that ellipsis resolution involves focus alternatives (see Merchant 2001, i.a.) and the new hypothesis that some presuppositions such as those of bound pronouns can be weakened in focus alternatives (see Sauerland 2013, McKillen 2016, i.a.). This analysis explains why third person DPs like *my classmates* referring to non discourse participants can contrast with a first person pronoun in sentences involving sloppy readings like (17).

As we saw in (6) or (13), third person DPs cannot however contrast with indexicals under supersloppy readings: unlike *my classmates* in (17), *Rosaline* in (13) cannot bind *you* in parallel with *I*. Does it imply that presupposition weakening does not happen under supersloppy readings? In Charnavel (2019), I argue that this is not necessarily the case: as we saw above, *Rosaline* cannot bind *you* because of the constraints imposed by the hidden description INTER. More decisive are examples like (18) where the two indexicals are reversed in the antecedent and in the ellipsis site and they are interpreted within the same context.

- (18) I noticed you before you did [ $\checkmark$ notice me].

Here, I argue in Charnavel (2019) that the supersloppy interpretation requires the person presuppositions to be ignored in focus alternatives as shown in (19).

- (19) a. I noticed you  $\lambda x. x$  notice the INTER( $x$ ); presupposition: the INTER( $x$ ) =  $a_c$   
 b. before you did  $\lambda x. x$  notice the INTER( $x$ ); ~~presupposition: the INTER( $x$ ) =  $a_e$~~



In this example, unlike in examples like (13) with third person DPs, the constraints on INTER are obeyed since INTER only relates discourse participants. However, if the antecedent pronoun triggers the same presupposition as the elided pronoun, only a strict reading arises. A supersloppy reading requires ignoring the presupposition as represented in (19)b. Since the reading is in fact available in (18), we can conclude on the basis of this example that supersloppy readings, just like sloppy readings, involve presupposition weakening in bound pronouns.

But according to the experimental data presented in Charnavel (2019), the reverse configuration exemplified in (20) yields the opposite conclusion.

(20) You helped me even when I did not [ $\star$  help you].

Here, the indexical *me*, unlike *you* in (18), can't seem to be construed as an indexical e-type pronoun to give rise to a supersloppy reading. Given that the constraints on INTER are obeyed, this seems to suggest that the person presuppositions triggered by the indexical pronoun must be interpreted in the ellipsis site as shown in (21).

(21) a. You helped me  $\lambda x. x$  help the INTER(x); presupposition: the INTER(x)  
 $=s_c$   
 b. even when I didn't  $\lambda x. x$  help the INTER(x); presupposition: the INTER(x)  
 $=s_c$

But how can we reconcile the diverging conclusions reached in (19) and (21)? In Charnavel (2019), I suggest two possible explanations. One hypothesis I detail is that the asymmetry between the judgements of (18) and (20) is real and reveals an asymmetry in the presuppositions of first and second person pronouns. Under this line of analysis, presuppositions of elided bound pronouns cannot be ignored under supersloppy readings, and the reason why they seem to be in examples like (18) is that the presupposition triggered by a second person feature is weaker than that triggered by a first person feature (as shown in (22)<sup>7</sup>) as independently supported by some facts mentioned in Charnavel (2019).

(22) a.  $[[I_i]]^{c,g,w} = g(i)$  presupposition:  $g(i) = s_c$   
 b.  $[[you_i]]^{c,g,w} = g(i)$  presupposition:  $g(i) = s_c$  or  $a_c$

The second possibility I entertain in Charnavel (2019) is that the contrast between (18) and (20) is not real but due to confounds in the data that are not minimal pairs. In section 3, we will see that our new French data support the latter hypothesis, thus leading us to the conclusion that supersloppy readings, just like sloppy readings, involve presupposition weakening of bound pronouns.

#### 2.4. Second open issue: supersloppy readings in focus constructions

<sup>7</sup> More precisely, person features can be treated as the following partial functions:

(i) a.  $[[1st]]^c = \lambda x: x$  includes  $s_c. x$   
 b.  $[[2nd]]^c = \lambda x: x$  includes  $s_c$  or  $a_c. x$

So far, we have only discussed examples of supersloppy readings in ellipsis constructions. But given that we have reduced them to sloppy readings of indexicals, which have mostly been discussed in focus constructions like (8) (i.e. in constructions involving a focus particle like *only* or *even*), it seems that we should expect supersloppy readings to also arise in focus constructions like (23).

- (23) a. Only I love you.  
b. Only you love me.

In fact, as discussed in Charneval (2019), the predictions made by our indexical e-type analysis for this type of example remains unspecified for two reasons. First, we have seen in the previous subsection that there is conflicting evidence regarding the status of person presuppositions in focus alternatives. If they can be ignored, both (23)a and (23)b should be interpretable supersloppily as *you don't love me* and *I don't love you*, respectively. But if the person presuppositions must persist in focus alternatives, only (23)a could give rise to such a supersloppy reading (cf. (18) vs. (20)).

Second, we have seen that INTER is context dependent. But can alternative contexts be considered in focus constructions? In other words, can *only* quantify over contexts? If so, (23)a-b can be interpreted more broadly than stated above, as indicated in (24).

- (24) Only I love you. [Nobody else loves their interlocutor]

The results obtained from Charneval's (2019) experimental data do not help us discriminate between these hypotheses, on the contrary. First, they reveal that the judgements of data like (24) have an intermediate status (i.e. significantly better than e.g. (6) and significantly worse than e.g. (1)) as illustrated in (25)-(26).

- (25) *Situation: Tom is talking to his partner Sue in a ballroom dancing class involving ten other couples.*  
*Tom to Sue: "Only I didn't make you fall over."*  
*Intended interpretation: ? All the other dancers made their partner fall over.*

- (26) *Situation: Sue is talking to her partner Tom in a ballroom dancing class involving ten other couples.*  
*Sue to Tom: "Only you made me swirl."*  
*Intended interpretation: ? The other dancers in the class did not make their partner swirl.*

Second, they show that data restricted to the interpretation discussed in (23) (i.e. where no alternative context is considered) are degraded:

- (27) *Samantha is on the phone with her mother.*  
*Samantha's mother to Samantha: "Only I call you regularly."*  
*Intended interpretation: ✗ You don't call me regularly.*

- (28) *Samantha is on the phone with her mother.*

*Samantha to her mother:* “Only you call me regularly.”

Intended interpretation: ✗ I don’t call you regularly.

To account for the intermediate judgements in (25)-(26), I propose in Charnavel (2019) that the readings in such sentences do not derive from the indexical e-type analysis presented in subsection 2.2, but from a complex focus analysis. Complex focus requires focusing two elements as exemplified in (29) (from Krifka 1991) where focused elements are F-marked.

(29) John only introduced Bill<sub>F</sub> to Sue<sub>F</sub>.

Here, the focus particle *only* associates with both *Bill* and *Sue* and thus quantifies over pairs of individuals (pragmatically determined). Similarly, we can assume that when reading sentences (25)-(26) (the questionnaires were written), participants stressed both *I* and *you* and this double focus allows *only* to quantify over relevant pairs of dancers, thus yielding a supersloppy reading without any quantification over context. Moreover, the intermediate status of the judgments can be assumed to be due to the pragmatic work required for restricting the focus alternatives to relevant pairs of individuals.

In Charnavel (2019), I presented three arguments supporting the complex focus analysis against the indexical e-type analysis for examples like (25)-(26). First, the judgments obtained in (25)-(26) do not differ from those obtained in sentences like (30) involving two proper names instead of two indexicals.

(30) *The teacher Paul is talking to his wife about the dancers of his ballroom dance class.*

*Paul to his wife:* “Only Tom made Sue swirl.”

Intended interpretation: ?The other dancers in the class did not make their partner swirl.

This is predicted by the complex focus analysis, which requires the same kind of pragmatic work in (30) and in (25)-(26) to construct the relevant set of alternatives, but not by the indexical e-type analysis, which excludes non-indexicals as arguments of INTER.

Second, examples like (31) involving an indexical and a proper name also obtained intermediate judgments.

(31) *Sue is complaining to Paul, the ballroom dancing teacher, about her partner Tom.*

*Sue to Paul:* “Only Tom made me fall.”

Intended interpretation: ? No other dancer in the class made their partner fall.

For the same reasons provided in (30), this supports the complex focus analysis against the indexical e-type analysis, which we saw predicts parallel examples in ellipsis (see e.g. (13)) to be unacceptable. In fact, note that Jacobson (2012) specifies that example (14), which is similar to (31), is infelicitous only if *me* is not stressed.

Third, examples like (25)-(26) were rated as acceptable as examples like (32) in which there is no c-command relationship between the two indexicals – a configuration which we saw precludes supersloppy readings in ellipsis constructions (see (12)). Again, only an analysis under which both *you* and *me* are focused can account for this result.

- (32) *For Father's Day, Carla and her friends prepared gifts for their fathers.*  
*C's father to C: "Only the gift you made made me laugh."*  
 ? The gifts made by Carla's friends didn't make their fathers laugh.

In sum, these three observations show that supersloppy readings in focus constructions such as (25)-(26) should not be analyzed as resulting from an e-type construal, but from complex focus. This explains the contrasts observed between focus constructions and ellipsis constructions, to which a complex focus analysis cannot apply due to elision of one of the indexicals.

However, the unacceptability of (27)-(28), repeated below as (33)-(34), remains puzzling.

- (33) Only I call you regularly. [ $\times$  You don't call me regularly]  
 (34) Only you call me regularly. [ $\times$  I don't call you regularly]

First, we saw that at least (33) is predicted to be acceptable by the indexical e-type analysis (as well as (34) if person presuppositions can be ignored in focus alternatives). Second, the complex focus analysis also predicts (33)-(34) to be acceptable as long as both *I* and *you* are interpreted as focused and the relevant alternatives are pragmatically restricted to the actual discourse participants. Why then are both sentences rated as unacceptable? In Charnavel (2019), I speculated that this result may be due either to the multiplicity of possible readings (strict reading, supersloppy reading arising with complex focus, and supersloppy reading deriving from the indexical e-type analysis) or to the pragmatic work required for restricting the alternatives to discourse participants only. I further suggested that such data should be further tested so as to control for the presence or absence of focus on the second indexical, by using either oral questionnaires or languages with non-stressable indexicals. The goal of the next section is to present the result of such further testing in French, where the existence of clitics reveals that an e-type construal is also available in focus constructions.

### 3. What French reveals about supersloppy readings

As we reviewed in the previous section, the two issues left open by Charnavel (2019) are interrelated: the predictions made by the indexical e-type analysis in focus constructions partially depend on whether person presuppositions are assumed to be obligatorily or only optionally present in focus alternatives. Given that the morphosyntactic properties of French are particularly well suited to further testing focus constructions, we will proceed as follows to tackle the two problems independently. First (in section 3.1), we will reexamine cases of focus constructions

in French in which the status of person presuppositions does not affect the predictions. Only then, after we have demonstrated the availability of indexical e-type construals in focus constructions, will we be able to discuss the problem raised by person presuppositions (in section 3.2). The new light shed by the French data on these two issues will allow us to refine the analysis of supersloppy readings and what it implies about the theories of indexicals and e-type pronouns (in section 3.3). Finally, we will discuss a new issue raised by the French data that we will have to leave open (in section 3.4).

Note that unless otherwise noted, all French data in the remaining of the paper were collected in a large-scale online questionnaire following the same methodology as in Charnavel (2019: 465-466). To test the availability of supersloppy and strict readings in French ellipsis and focus constructions, sentences varying along relevant conditions were inserted in short dialogs and introduced by brief contexts intended to make the target reading (supersloppy or strict) pragmatically plausible. 144 native French speakers were asked to rate the naturalness of the intended interpretation on a 6-point continuous scale. The results were statistically analyzed by computing means, standard deviations and t-tests for relevant pairs of conditions (in which case the p-value is indicated; as is standard, significance is assumed to be reached below 0.05). Further details and all tested items can be found in the Appendix.

### 3.1. Solving the second problem: supersloppy readings in focus constructions

We saw that whether or not presuppositions of bound indexicals are assumed to be interpreted in focus alternatives, the interpretation shown in (35)a (cf. (27)) is predicted to be available by the indexical e-type analysis.

- (35) Only I call you.  
 a. You don't call me  
 b.  $\llbracket VP \rrbracket^{c.g.w} = \lambda x. x \text{ call the INTER}(x)$ ; (presupposition: the  $\text{INTER}(x) = a_c$  (or  $s_c$ ))

Under the e-type construal of *you* shown in (35)b, INTER here relates discourse participants both in the ordinary meaning and in the focus meaning, since the only individuals considered are the actual discourse participants. If presuppositions of bound pronouns are assumed to weaken in focus alternatives, the interpretation in (35)a follows from any lexical entry for *you* ((16)b or (22)b). If they are assumed to persist in focus alternatives, the interpretation follows from the lexical entry in (22)b (as indicated as a possible analytical option in (35)b). But contrary to predictions, Charnavel's (2019) English data suggest that (35)a is unacceptable (see (33)). As we saw, the result is all the more surprising since it also goes against the prediction made by the complex focus analysis, which is not in question.

French is particularly well suited to re-testing the prediction because in French, indexicals can be expressed as non-focusable clitics in some configurations.

This property makes it possible to test the indexical e-type hypothesis independently of the complex focus hypothesis, as illustrated in (36).<sup>8</sup>

(36) *Françoise is on the phone with her friend. She is complaining.*

C'est toujours comme ça : de nous deux, il n' y a que moi qui  
it is always like this of us both it not there has that me who  
t' appelle !  
you.CL call<sup>9</sup>

“It is always like this: between the two of us, I am the only one who call you.”

Intended interpretation: you never call me. [mean: 5.54; SD: 0.72]

The indexical *you* is here expressed as the clitic *te*, whose vowel is elided due to its position before a verb starting with a vowel. In these conditions, *te* cannot be stressed,<sup>10</sup> and the possibility of complex focus is therefore excluded: only the first person pronoun *moi* is focused here (in fact, *moi* is the strong form of the pronoun), which associates with the exclusive focus expression *ne...que* (lit. ‘not... that’, i.e. ‘only’).<sup>11</sup> Thus, only the indexical e-type analysis can give rise to the intended interpretation.

<sup>8</sup> For presentation purposes, contexts and intended interpretations, presented in French in the questionnaire I made (see Appendix for details), are here translated into English. Note that like in Charnavel (2019), I indicate the average score across sentences and participants in the relevant condition (mean) and the average standard deviation (SD), and I used strict readings as controls. Further note that I here concentrate on the data of the questionnaire that bear on the two problems we examine, but the other conditions were also tested (as shown in the Appendix) and confirm Charnavel’s (2019) findings. For instance, they support Charnavel’s (2019: 476-477) hypotheses against Rebuschi’s (1994, 1997) that, if contexts are appropriately controlled for (to respect the reciprocity condition discussed in section 3.2), both strict and supersloppy readings can be available in the same configuration, and the distance between the two indexicals is irrelevant.

<sup>9</sup> Abbreviations used in this paper include: CL: clitic, ADJ: adjective, FEM: feminine, IND: indicative, INF: infinitive, SUBJ: subjunctive.

<sup>10</sup> It is generally difficult to focus clitics, but this is not impossible as mentioned in e.g. Cardinaletti & Starke (1994: 48-49). That’s why I specifically chose an environment where the absence of focus can be explicitly indicated (by the elision of the vowel).

<sup>11</sup> In this example, I use *ne...que* (literally ‘not... that’) as the counterpart of English *only* in order to maximize the naturalness of examples while minimizing the possibility of confounds. In French, an exclusive construction can be expressed in various ways shown in (i)a-e including the focus particles *seul(ement)* and *ne...que*.

- (i) a. Seule moi t' appelle.  
only.ADJ.FEM me you.CL call.IND  
b. Moi seule t' appelle.  
me only.ADJ.FEM you.CL call.IND  
c. Je suis la seule à t' appeler.  
I am the.FEM only.ADJ.FEM to you.CL call.INF  
d. Je suis la seule qui t' appelle.  
I am the.FEM only.ADJ.FEM who you.CL call.IND/SUBJ  
e. Il n' y a que moi qui t' appelle.  
it not there has that me who you.CL call.IND/SUBJ  
‘Only I call you’/‘I am the only one who call you’.

This interpretation was experimentally tested, and as indicated in (36), it turns out that it is clearly acceptable (mean: 5.54 out of 6); in fact, (36) did not contrast in acceptability with the French counterparts of ellipsis examples like (1) ( $p = 0.64$ ). This demonstrates that the indexical e-type analysis is available in focus constructions too, as expected under the common assumption mentioned above that both ellipsis and focus constructions involve focus alternatives (Merchant 2001, i.a.).

Why then was the English counterpart of (36) (see (27)) rated as unacceptable? It's unlikely that the unacceptability is due to ambiguity as I first suggested in Charnavel (2019): as shown there, strict and supersloppy readings of indexicals can perfectly co-exist; and it's not clear why the fact that supersloppy readings could arise under two possible construals (complex focus and e-type construals) would be a problem. More likely is the second suggestion I made in Charnavel (2019), attributing the low rating to the amount of pragmatic work required for restricting focus alternatives to the relevant ones (see e.g. Kim et al. 2015). Specifically, to obtain the interpretation in (27), it is necessary to restrict the domain of alternatives to the discourse participants, so that the addressee is the only alternative intended to be excluded. I take the issue to be that by default, the use of an exclusive particle triggers the expectation that more than one alternative should be relevant; otherwise, the same message can be expressed using explicit exclusion of the alternative (i.e. in (27): *you don't call me regularly* instead of *only I call you regularly*). Participants thus judge sentences like (27) as not very natural because they are reluctant to consider the addressee as only alternative. To avoid the issue in (36), I added explicit mention of the relevant alternatives in the previous discourse (i.e. *de nous deux* 'between the both of us').<sup>12</sup>

Two other French constructions confirm that if we control for the absence of double focus and if we favor the restriction of pragmatically relevant alternatives to

---

The adjectival counterpart of the adverb *seulement* is used in (i)a-b because the element it associates with is a pronoun, which can precede or follow *seul*. In (i)c-d, *seul* is used with a definite article and an infinitive, indicative or subjunctive relative clause (cf. Partee 1989 for English and Kratzer 2009 for German). *Ne...que* in (i)e implies the use of an indicative or subjunctive relative clause. I chose option (i)e for two reasons. First, I run a small study testing the availability of strict readings using these variants (included at the end of the Appendix), which revealed that options c-e were overall judged more natural than options a-b. Second, option (i)e minimizes the risk of confounds as compared to options (i)c-d. As discussed in Kratzer (2009), Wurmbrand (2017) and Bassi (2019), the variants in (i)c-d differ with respect to the availability of sloppy readings in various languages; this is crucially relevant to the indexical e-type analysis, under which supersloppy readings involve a bound variable as under sloppy readings. Criteria argued to be relevant include gender (of the adjective or/and the definite article) and verbal morphology. Option (i)e excludes the gender variable and reduces the verb morphology variable in excluding infinitival relative clauses. Furthermore, I selected verbs that exhibit syncretism between first and third persons and between subjunctive and indicative to further reduce the potential role of this variable (see Kratzer 2009).

<sup>12</sup> Certainly, the context of use that is mentioned before the dialog in (27) introduces only the speaker and the addressee (Samantha and her mother). But this is not sufficient to trigger the expectation that they should be the only alternatives to consider: speaker and addressee are necessarily relevant in a dialog, and Samantha and her mother are neither introduced as specifically relevant to the action at stake (i.e., calling regularly), nor mentioned in the previous discourse of the dialog itself.

discourse participants only, supersloppy readings are easily accepted. First, cleft constructions like (37) were also included in the French questionnaire and judged as perfectly natural, i.e. as not differing in acceptability from examples like (1) ( $p=0,8$ ).

(37) *Susanne is on the phone with her friend. She is complaining.*

C'est toujours moi qui t' appelle.

it is always me who you.CL call

‘It’s always me who calls you’.

Intended interpretation: you never call me.

[mean: 5.64; SD: 0.67]

Here, the same strategy is used as in (36) to guarantee that the second person indexical *t'* cannot be focused (only *moi* is, because it is clefted), so that the intended interpretation can only derive from the e-type construal of this indexical, not from complex focus (see Hedberg 2013 for complex focus in English cleft constructions).<sup>13</sup> Moreover, the issue discussed above regarding the pragmatic restriction to the two discourse participants does not arise because no exclusive particle is used: it is the cleft construction that triggers focus alternatives, which does not seem to require the evocation of more than two alternatives by default. Furthermore, *toujours* (‘always’) quantifies over times or situations: even if only one individual is excluded, many situations are considered involving a call between the speaker and the addressee. In this respect, note that the discourse in (36) also introduces situations (*c'est toujours comme ça* ‘it is always like this’), which makes more natural the restriction of the focus domain to two alternative individuals.

The second type of example confirming the availability of indexical e-type analysis in focus constructions is illustrated in (38) (hence the title of the present article), which did not require experimental testing as the interpretation is non-ambiguous and the example is uncontroversially acceptable.

<sup>13</sup> Furthermore, a closer investigation of cleft constructions confirms that they do not exhibit the properties of complex focus described in section 2.4: the supersloppy interpretation is significantly more acceptable in examples like (37) than in examples like (i) ( $p=0.015$ ), in which the second indexical is not c-commanded by the first one (cf. (32) vs. (12)), and in examples like (ii) ( $p=0.02$ ), in which the focused element is a third person pronoun instead of an indexical (cf. (31) vs. (13)).

(i) Ce ne sont jamais les élèves de mon école qui t' écrivent une carte.  
it not are never the students of my school who you.CL write a card  
‘The students in my school are never the ones who write you a card.’

*Intended interpretation:* The students in your school are always the ones who write me a card.

(ii) C'est toujours lui qui m' appelle !

it is always him who me.CL call

‘He is always the one who calls me!’

*Intended interpretation:* I am never the one who call him.

Note that (ii) involves reciprocity between the referent of a third person pronoun and the referent of a first person pronoun – a case that is not specifically illustrated in Charnavel’s (2019) ellipsis examples. But it falls into the same category as examples like (13) in the sense that its interpretation requires construing *me* as a non-indexical e-type pronoun (i.e. as e.g. *his partner*). The fact that the example is degraded even if there is reciprocity involved (see discussion in section 3.2) makes the argument stronger. See fn. 26.



- (38) a. *Romeo to Juliet*: « Je t' aime. "I love you."  
I you.CL love  
b. *Juliet to Romeo*: – Moi aussi, je t' aime. » "I do love you  
too."  
me too I you.CL love

Here, *moi* is associated with the additive focus particle *aussi* ('also/too'), which presupposes that there is at least one contextually salient alternative to its prejacent that is true (see Rullmann 2003, i.a.). As in previous examples, this requires interpreting the indexical clitic *t'* as an e-type pronoun depending on *moi*, given that *t'* cannot be focused.

In sum, the fact that in French, indexicals can be expressed as non-focusable clitics in some configurations allows us to settle our second issue: supersloppy readings can also derive from the indexical e-type analysis in focus constructions, since they also arise even when double focus is impossible. This supports the common view that ellipsis and focus constructions are to be treated uniformly: as argued in e.g. Merchant (2001), the identity conditions in ellipsis can be reduced to well-formedness conditions on focus alternatives; if the e-type construal of indexicals licenses supersloppy readings in ellipsis constructions, it should thus also license these readings in focus constructions.

### 3.2. Solving the first problem: person presuppositions in focus alternatives

So far, we have only examined French focus constructions in which a first person indexical c-commands a second person indexical (and not vice versa), because as explained in section 2.3, this configuration allows us to remain neutral with respect to the problem of presupposition weakening. The reverse configuration does not, as shown in (39).

- (39) Only you call me.  
a. I don't call you  
b.  $\llbracket VP \rrbracket^{c,g,w} = \lambda x. x \text{ call the INTER}(x)$ ; (presupposition: the  $\text{INTER}(x) = s_c$ )

Here, interpretation (a) is only available if the person presuppositions of the e-type pronoun are assumed to be ignored in focus alternatives, since the presupposition triggered by first person features is incompatible with that triggered by second person features under any reasonable hypothesis of person presuppositions (see discussion in section 2.3). Testing this configuration in French, where we now know that the indexical e-type analysis applies to focus constructions, should thus allow us to settle the issue. To this end, examples such as (40)-(41), which minimally differ from examples (36)-(37), were included in the questionnaire.

- (40) De nous deux, il n' y a que toi qui m' appelles.  
of us both it not there has that you who me.CL call  
'Of the two of us, only you call me.'  
*Intended interpretation*: I never call you. [mean: 5.44; SD: 1.08]
- (41) C'est toujours toi qui m' appelles.

it is always you who me.CL call  
 ‘You are always the one that call me.’  
*Intended interpretation:* I never call you. [mean: 5.63; SD: 0.67]

In both cases, it is a second person indexical (the strong pronoun *toi*) that is focused, whether it associates with the exclusive focal expression *ne...que* as in (40) or it is clefted as in (41). And in both cases, the first person indexical (the clitic with elided vowel *m'*) is non-focusable just like in (36)-(37). Crucially, the supersloppy interpretations indicated in (40)-(41) were rated as acceptable as in (36)-(37) ( $p=0.97$ ) (and as acceptable as ellipsis examples such as (1);  $p=0.73$ ).

This clear result demonstrates that person presuppositions of indexical e-type pronouns can be ignored in focus alternatives to yield supersloppy readings. Supersloppy readings thus behave like sloppy readings in this respect, which supports the hypothesis that they involve similar analytical ingredients (i.e. indexical binding). Put it differently, supersloppy readings buttress the hypothesis that indexical binding<sup>14</sup> should be analyzed as deriving from person presupposition weakening in focus (as in e.g. Sauerland 2013) because like sloppy readings, supersloppy readings are restricted to constructions involving focus alternatives. This adds another argument against feature transmission (as in e.g. Kratzer 2009), which is unrelated to focus.

Why couldn't this conclusion be reached based on the English data presented in Charnavel (2019)? Focus examples such as (28) were confounded by the same two factors as those we discussed in relation to (27): double focus cannot be excluded in these examples, and the intended restriction of alternatives to the two discourse participants is disfavored by the choice of a construction involving *only*, which we can assume preferably quantifies over more than two alternatives. But what about ellipsis examples such as (18)-(20) repeated below as (42)-(43)?

(42) I noticed you before you did [✓notice me].

(43) You helped me even when I did not [✗ help you].

In Charnavel (2019), I suggested – following an anonymous reviewer's remark – that part of the issue may be due to the fact that (42) and (43) do not minimally differ. I agree and further assume that the pragmatics of the situation is not sufficiently well controlled in such examples. In Charnavel (2019), I show that supersloppy readings only arise in situations involving a specific interaction between the discourse participants, such as love, conflict or negotiation: they are significantly degraded (as compared to (1),  $p<0,001$ ) in dialogs like (44) that do not bear on the relation between the interlocutors.

(44) *Claire is talking to a neighbor.*  
 a. (*Claire to the neighbor*) “I came across your daughter yesterday.”  
 b. (*the neighbor to Claire*) “I did, too.”

<sup>14</sup> From now on, I use the expression ‘indexical binding’ descriptively. Under the analysis I adopt, binding is not literally indexical, since the indexical presupposition is assumed to weaken in focus alternatives.

*Intended interpretation:* I came across your daughter yesterday, too. (=the neighbor came across Claire's daughter yesterday). [mean: 3.24; SD: 2.03]

Inspired by the recent discussion in Balachandran (2022), I more specifically hypothesize that supersloppy readings require that the reciprocity between the two discourse participants be under discussion. Thus, the contrast between (44) and (1) results from the fact that it is much less natural to construct (44)a as implicitly answering the question *did we come across each other's daughter today?* than (1)a as implicitly answering the question *do we love each other?* Under my indexical e-type hypothesis, this requirement derives from the constraints on indexical e-type construals: the interpretation of an indexical pronoun as an e-type pronoun involving the INTER relation requires that the interlocutor relation be at stake in the discourse. This constraint can be seen as the counterpart of the formal link requirement in regular e-type construals, according to which the hidden description used in e-type pronouns must be explicitly present in the previous discourse (see Heim 1990, i.a.).<sup>15</sup>

This hypothesis predicts that if we control for the pragmatics accordingly and make the pairs of examples minimal, we should be able to observe supersloppy readings in reversal configurations such as (42)-(43). This prediction was tested in the French questionnaire where dialogs such as (45) were included. Note that in French, only TP-ellipsis is licensed (vs. VP-ellipsis in English, see e.g. Lobeck 1995).

- (45) a. *Moi, je t' ai repérée, et toi ?* [mean: 5.62; SD: 0.59]  
       *me I you.CL have spotted and you*  
       *'I spotted you, did you?'*
- b. *Toi, tu m' as repérée, mais moi non.* [mean: 5.08; SD: 1.63]  
       *you you me.CL have spotted but me no*  
       *'You spotted me, but I didn't.'*

Here, sentences (a) and (b) minimally differ, unlike in (42)-(43) where different verbs and different adverbial clauses were used. Furthermore, the example is constructed so as to favor a question under discussion bearing on reciprocity between discourse participants. First, the first indexical (the binder) is focused in both the antecedent (where a strong pronoun is doubled with a weak pronoun) and in the elided proposition (where the strong pronoun is stressed), which favors contrastive focus. Second, the antecedent and the elided proposition are connected through coordination, not subordination. This matters as coordination induces some symmetry between the antecedent and the elided proposition that favors the expression of reciprocity; subordination, however, arguably disfavors the evocation

<sup>15</sup> There is arguably a notable difference between the two constraints with respect to explicitness: in the case of indexical e-type construals, the *interlocutor* description must not be explicitly mentioned in the discourse, but only at stake; but in the case of regular e-type construals, descriptions such as *wife* must be explicitly mentioned: being at stake (e.g. because of the mention of related expressions like *married*) is not sufficient (see e.g. Heim 1990; but see further discussion in fn. 21). This difference may come from the fact that person indexical e-type construals are possible only with one description (i.e. INTER); furthermore, this description cannot be expressed by a word in English or French (the word *interlocutor* denotes a relation that is not restricted to discourse participants).

of reciprocity, especially depending on the type of relation expressed by the subordinator. In fact, we can assume that the degradedness of example (43) partially comes from the fact that *even when* expresses a concessive relation that is less conducive to the evocation of reciprocity than a time relation as in (42), and even less so than coordination as in (45).<sup>16</sup>

In these conditions, we crucially observe that there is no significant contrast between (45)a and (45)b ( $p=0.4$ ) and that (45)a-b are as acceptable as the French counterparts of (1) ( $p=0.12$ ). These results corroborate the conclusion we reached based on focus constructions like (40)-(41): supersloppy readings support the hypothesis that person presuppositions can be ignored in focus alternatives, and the conflicting evidence provided by the English data in Charnavel (2019) is due to independent factors.

### 3.3. Analytical consequences

As shown by the crucial data points reviewed in the previous two subsections (see Appendix for the remaining experimental French data, which simply confirm the English data), the morphosyntactic specificities of French, as well as some further control of the data, allow us to clarify the empirical picture of supersloppy readings and thus refine their analysis. In this subsection, we further explore the analytical consequences of our French results.

<sup>16</sup> As shown in the Appendix, reversal configurations were also tested in French minimal pairs involving subordination such as (i).

- (i) *Laura and her sister are watching the video of their ballet performance and try to identify the dancers. Laura exclaims:*
- a. Je t' ai repérée avant toi ! [mean: 3.25; SD: 2.03]  
 I you.CL have spotted before you  
 'I spotted you before you did!'  
*Intended interpretation:* I spotted you before you spotted me.
- b. Tu m' as repérée avant moi ! [mean: 3.67; SD: 1.72]  
 you me.CL have spotted before me  
 'You spotted me before I did!'  
*Intended interpretation:* You spotted me before I spotted you.

Contrary to what we observed in (42)-(43), the results show no significant contrast between (i)a and (i)b ( $p=0.6$ ), which confirms that the absence of minimal pairs in (42)-(43) is partially responsible for the puzzling result in English. Furthermore, such French examples are significantly more degraded than examples like (45)a-b ( $p<0.001$ ), which supports the hypothesis that subordination is less suited than coordination to supersloppy readings due to the reciprocity requirement; further note that the first indexical is not focused in these examples (vs. (45)), which may disfavor the intended contrast between both indexicals. Finally notice that in French, only some subordinators such as *avant/après* ('before/after') or comparative markers (*plus/moins/aussi* 'more/less/as') license ellipsis, and due to the fact that French only licenses TP (vs. VP) ellipsis, such structures are potentially ambiguous between a subject and an object interpretation of the indexical above the ellipsis site (i.e. *I spotted you before you spotted me/yourself* vs. *I spotted you before I spotted you* – which is contradictory), and between a phrasal or a reduced clause construal of the complement of the connector (i.e. *before you* vs. *before you (spotted-me/yourself)*). Such ambiguities may explain the intermediate results and the high standard deviation scores.

First, as already mentioned, these results confirm that supersloppy readings and sloppy readings of indexicals should be analyzed uniformly based on a presuppositional analysis of person features. The English results already supported the hypothesis that supersloppy readings, like sloppy reading, derive from indexical binding. In Charnavel (2019), this led me to adapt an analysis of indexical sloppy readings to supersloppy readings, by assuming that supersloppy readings involve complex indexical variables (i.e. e-type pronouns). Two further facts led me to specifically adopt the semantic approach of indexical binding treating person features as presupposition triggers that can weaken in focus alternatives (Jacobson 2012, Sauerland 2013, i.a.): binding occurs between two indexicals that mismatch in features, and the feature of the bindee must be interpreted (that's why supersloppy readings can only arise in case of dependency between discourse participants – which I analyzed as requiring an indexical hidden description). Both facts are compatible with the semantic approach, but incompatible with the morphosyntactic approach of indexical binding relying on feature transmission (Kratzer 2009, i.a.).

However, the English results also raised doubts on the mechanism of person presupposition weakening, and could not confirm the prediction made by the semantic analysis that supersloppy readings should not only occur in ellipsis constructions, but also in constructions involving focus particles. Crucially, our French results clarify both points. They first demonstrate that supersloppy readings can indeed arise in constructions with focus particles (see section 3.2). Supersloppy readings, like sloppy readings of indexicals (see e.g. Bassi 2019), thus arise in all constructions involving focus alternatives, namely in both ellipsis and focus constructions, and only there. This argues in favor of the semantic approach of indexical binding, which derives this fact since person presupposition weakening only happens in focus alternatives; on the contrary, feature transmission assumed in morphosyntactic approaches incorrectly predicts sloppy and supersloppy readings to arise more broadly. Second, the French data buttress the semantic approach of indexical binding by demonstrating that person presuppositions of indexical e-type pronouns can indeed be ignored in focus alternatives, just like person presuppositions of bound indexical pronouns (see section 3.3). In sum, the French data confirm all predictions made by an analysis of supersloppy readings that relies on the semantic approach of indexical binding, thus supporting Charnavel's (2019) proposal.

There is nevertheless one feature of Charnavel (2019)'s analysis that remains unclear. To see it, let's review how the analysis of supersloppy readings parallels that of sloppy readings using example (17) (see (46) below) and an English adaptation of example (45) (see (47) below).

- (46) a.  $I_i$  [ $VP_1$  did  $my_i$  homework], but my classmates didn't [ $VP_2$  ... ].  
 b.  $[[my_i]]^{c,g,w} = g(i)$ ; presupposition:  $g(i) = s_c$   
 c.  $[[VP_1]]^{c,g,w} = \lambda x. x$  do  $x$ 's homework ; presupposition:  $x = s_c$   
 d.  $[[VP_2]]^{c,g,w} = \lambda x. x$  do  $x$ 's homework ; ~~presupposition:  $x = s_e$~~

- (47) a.  $I_i$  [ $VP_1$  noticed  $you_k$ ], but you didn't [ $VP_2$  ... ].  
 b.  $[[you_k]]^{c,g,w} = [[the\ INTER(pro_i)]]^{c,g,w}$ ; presupposition:  $g(k) = a_c$   
 c.  $[[VP_1]]^{c,g,w} = [[notice\ the\ INTER(pro_i)]]^{c,g,w} = \lambda x. x$  notice the INTER( $x$ );  
 presupposition: the INTER( $x$ ) =  $a_c$   
 d.  $[[VP_2]]^{c,g,w} = \lambda x. x$  notice the INTER( $x$ ); ~~presupposition: the INTER( $x$ ) =  $a_e$~~

In both (46) and (47), the second indexical in the antecedent is interpreted as triggering a context-dependent presupposition (see b). In both cases, this presupposition is ignored in the ellipsis site (see d), which licenses binding by a non-indexical in (46), and binding by a different indexical in (47). But there is a difference: in (47), it is not the variable that is bound (i.e.  $x$ ) that triggers the presupposition, but the complex variable containing it (i.e. the  $\text{INTER}(x)$ ). This is justified by the fact that it is the whole pronoun (i.e. *you*) that carries a person feature. But this raises the following problem: under semantic approaches, it is assumed (although admittedly not explained) that only person features of bound pronouns can be ignored in focus alternatives. Furthermore, notice that under the analysis illustrated in (47), the person feature of *you* is in fact interpreted twice: not only does it trigger the presupposition just mentioned, but I also hypothesized that it is this feature that explains why the hidden description must be restricted to the indexical function  $\text{INTER}$  (see section 2.2).

Both problems can be ironed out if we make the following more parsimonious hypotheses. First, the person feature of *you* is only interpreted once as constraining the construal of the e-type pronoun. In other words, the use of the hidden description  $\text{INTER}$  to interpret *you* as an e-type pronoun contributes to encoding the person presupposition of *you* as shown in (48) (revising (11)), where the referential constraints on the arguments of  $\text{INTER}$  are noted as a presupposition.

$$(48) \quad \llbracket \text{INTER} \rrbracket^{c,g,w} = \lambda x. \lambda y. y \text{ is an interlocutor of } x; \text{ presupposition: } x \text{ and } y \in \{s_c, a_c\}$$

Any other description (e.g. *spouse* as in (14)) cannot encode the presupposition because it does not require – but only allows – its arguments to be discourse participants. Second, I hypothesize that the variable contained in the e-type pronoun is not a bare variable (see *pro* in (47)c), but a variable with (the relevant) person presupposition: specifically, *you* is not interpreted as *the*  $\text{INTER}(pro)$ , but as *the*  $\text{INTER}(me)$ . This has several welcome consequences. Firstly, the combination of the presuppositions triggered by  $\text{INTER}$  and that triggered by *me* ensures that the person feature of *you* is ultimately interpreted in the same way under an e-type construal and under a regular construal (as restricting the referent to the actual addressee). Secondly, this entails that the presupposition to be ignored in focus alternatives is the presupposition triggered by the bound variable itself (i.e. *me* argument of  $\text{INTER}$ ) as shown in (49) revising (47).<sup>17</sup>

$$(49) \quad \begin{array}{l} \text{a. } I_i [\text{VP}_1 \text{ noticed } you_k], \text{ but } you \text{ didn't } [\text{VP}_2 \dots]. \\ \text{b. } \llbracket you_k \rrbracket^{c,g,w} = \llbracket the \text{ INTER}(me_i) \rrbracket^{c,g,w}; \quad \text{presupposition: } g(i) = s_c \\ \text{c. } \llbracket VP_1 \rrbracket^{c,g,w} = \llbracket notice \text{ the } \text{ INTER}(me_i) \rrbracket^{c,g,w} = \lambda x. x \text{ notice the } \text{ INTER}(x); \\ \quad \text{presupposition: } x = s_c \\ \text{d. } \llbracket VP_2 \rrbracket^{c,g,w} = \lambda x. x \text{ notice the } \text{ INTER}(x); \text{ presupposition: } x = s_e \end{array}$$

<sup>17</sup> The presupposition of  $\text{INTER}$  is not predicted to weaken in focus alternatives, given that under semantic accounts, only presuppositions of bound pronouns can weaken (and other purely presuppositional elements, under Sauerland's 2013 account; but see McKillen 2016 for problems).

Finally, this hypothesis implies that *you* can be interpreted as *the* INTER(*me*) (or *me* as *the* INTER(*you*)) in any syntactic configuration, while the previous hypothesis implied that this was only possible under binding; only the pragmatics (discussed in section 3.2) constrains this construal. If we only observe it in ellipsis and focus constructions, it's because it does not make any truth-conditional difference in other cases: for example, the addressee of the context and the addressee of the speaker of the context always refer to the same individual; conceiving two parameters of the context as independently depending on the context or as depending on each other only has truth-conditional differences in case of binding.

This proposal makes predictions for e-type construals of third person pronouns, which can carry gender and/or number features: e-type construals of pronouns carrying gender or number features should be restricted to involving a hidden description yielding the relevant gender or number presuppositions. More precisely, I assume a hierarchical view of features where only strong features (e.g. first person) trigger a presupposition while weak ones (e.g. third person) only implicate one due to competition (see e.g. Sauerland 2008). The prediction thus only concerns e-type construals of pronouns carrying strong gender or number features. It can be tested in examples such as (50)-(51) manipulating gender by adapting Jacobson's example (14).

(50) Cette année, tout le monde était censé venir avec son bébé,  
 this year all the people was supposed come with his baby  
 mais seul Michel est venu avec {lui / # elle}.  
 but only Michel is come with him / her  
 'This year everyone was supposed to bring their baby, but only Michael brought {it/#her}.' [his baby]

(51) Cette année, tout le monde était censé venir avec sa fille,  
 this year all the people was supposed come with his daughter  
 mais seul Michel est venu avec elle.  
 but only Michel is come with her  
 'This year everyone was supposed to bring their daughter, but only Michael brought her.' [his daughter]

In both (50)-(51), the intended interpretation requires construing the feminine pronoun *elle* as an e-type pronoun depending on *Michel*. We observe<sup>18</sup> that this is only possible in (51) in which the previous discourse contains the description *filles* ('daughter'), not in (50) containing the description *bébé* ('baby'). This contrast supports our prediction. Given that the feminine gender feature of *elle* is marked (unlike the masculine feature), we can assume that it triggers the presupposition that its referent is female.<sup>19</sup> According to our hypothesis, an e-type construal of *elle* thus

<sup>18</sup> This type of data (involving gender or number features) was not included in the questionnaire. The contrast I report is based on my own intuitive judgments as well as those of a few native speakers I consulted. It would be interesting to further test such data using the same type of questionnaire I used for testing supersloppy readings.

<sup>19</sup> In French (vs. English), gender features can be grammatical (e.g. the word for 'table', *table*, carries a feminine feature). I ignore this complication here by restricting myself to examples where the target pronouns refer to human beings; in this case, the gender

requires using a hidden description that can guarantee that this presupposition remains satisfied. This is the case of *fille* ('daughter') in (51), which entails that its referent is female, but not of *bébé* ('baby') in (50), which does not entail anything regarding the gender of the referent.<sup>20 21</sup>

The prediction is similarly borne out in cases involving number as illustrated in (52)-(53).

- (52) Cette année, tout le monde était censé venir avec son bébé,  
 this year all the people was supposed come with his baby  
 mais seul Michel est venu avec {lui / # eux}.  
 but only Michel is come with him / them  
 'This year everyone was supposed to bring their baby,  
 but only Michael brought {it/#them}.' [his baby/#his babies]
- (53) Cette année, tout le monde était censé venir avec ses enfants,  
 this year all the people was supposed come with his kids  
 mais seul Michel est venu avec eux.  
 but only Michel is come with them  
 'This year everyone was supposed to bring their kids,  
 but only Michael brought them.' [his kids]

This time, it is the plural pronoun *eux* that is intended to be construed as an e-type pronoun depending on *Michel*. This interpretation is only possible when the previous discourse involves a plural description as in (53) (*ses enfants* 'his kids' vs. *son bébé* 'his baby' in (52)), thus confirming that the strong number feature of the pronoun must be encoded by the hidden description.

In sum, the clarification of the roles of person presupposition resulting from our novel French data allows us to clarify not only the analysis of supersloppy readings, but also the theory of indexicals and that of e-type pronouns. The

---

features restrict the gender of their referent, like in English. Furthermore, note that unlike in English, the feminine pronoun in French is not used by default (e.g. in generic texts mentioning babies), but can only be used for human beings when the referent is actually (perceived as) female.

<sup>20</sup> In examples like (50)-(51), French allows another option, i.e. to use the preposition with a null object as in (i), which makes even the masculine pronoun slightly degraded for some speakers.

- (i) ...mais seul Michel est venu avec. 'lit... but only Michael came without.'

The contrast between the feminine and the masculine pronouns is thus even clearer in examples where a null object is not licensed as in (ii).

- (ii) Sur la photo, tout le monde était censé se placer derrière son bébé,  
 on the picture all the people was supposed CL stand behind his baby  
 mais seul Michel s' est placé derrière {lui / # elle}.  
 but only Michel CL is stood behind him / her  
 'On the picture, everyone was supposed to stand behind their baby, but only  
 Michael stood behind {him/#her}.'

<sup>21</sup> This may also have consequences on the analysis of the formal link requirement. For example, note that the reported contrast mentioned in fn. 15 between *wife* and *married* as (im)possible licensors for an e-type reading of *her* can derive from the gender presupposition requirement just hypothesized.



arguments against Kaplan's fixity hypothesis are now stronger: not only can indexicals be bound, they can also be interpreted as (context-dependent) descriptions. We also have stronger arguments for the presuppositional analysis of indexicals that reconciles their bindability with their context-dependency, since context dependency (as assumed by Kaplan) remains one of their defining properties (as reflected by the constraints on e-type construals). Finally, supersloppy readings show that the feature information of pronouns must be retained in their e-type construal, thus suggesting that it must be transferred to the hidden description, with consequences on e-type pronouns beyond indexicals.

### 3.4. A new open issue: crosscontextual alternatives in focus constructions?

Our French experimental data have thus allowed us to settle the two issues that I had to leave open in Charnavel (2019) due to inconsistencies in my English data. That said, we will see in this last subsection that the French data open a new issue.

We saw in section 2.4. that English data such as (25)-(26) (repeated below as (54)-(55)) can be argued to derive from a complex focus analysis where both indexicals are stressed, thus inducing pairs of individuals as alternatives.

(54) *Situation: Tom is talking to his partner Sue in a ballroom dancing class involving ten other couples.*

*Tom to Sue: "Only I didn't make you fall over."*

*Intended interpretation: ? All the other dancers made their partner fall over.*

(55) *Situation: Sue is talking to her partner Tom in a ballroom dancing class involving ten other couples.*

*Sue to Tom: "Only you made me swirl."*

*Intended interpretation: ? The other dancers in the class did not make their partner swirl.*

The indexical e-type analysis was thus hypothesized to be restricted to examples like (27)-(28) (repeated below as (56)-(57)) where the only relevant alternatives are the two discourse participants. Although the English results were puzzling, we showed that the French results support the hypothesis that the indexical e-type analysis can indeed derive the supersloppy interpretations in (56)-(57).

(56) *Samantha is on the phone with her mother.*

*Samantha's mother to Samantha: "Only I call you regularly."*

*Intended interpretation: ✗ You don't call me regularly.*

(57) *Samantha is on the phone with her mother.*

*Samantha to her mother: "Only you call me regularly."*

*Intended interpretation: ✗ I don't call you regularly.*

As we mentioned in passing, these hypotheses entail that no quantification over contexts is involved although *only* quantifies over alternatives and INTER requires context-dependent arguments. But to test whether this conclusion can be

generalized, examples like (54)-(55) need to be tested in French, where we can discriminate between a complex focus analysis and an indexical e-type analysis.

To this end, examples such as (58)-(59) were included in the French questionnaire.

- (58) *Clément takes part in a speed-dating event. After having a look at the other couples, he told his interlocutor:*

Dans cette soirée, il n' y a que moi qui t' écoute vraiment.  
 in this evening it not there has that me who you.CL listen really  
 'In this event, only I am really listening to you'.

*Intended interpretation:* None of the other men is really listening to his own interlocutor. [mean: 4.39; SD: 1.75]

- (59) *Clément takes part in a speed-dating event. After having a look at the other couples, he told his interlocutor:*

Dans cette soirée, il n' y a que moi qui chante pour toi.  
 in this evening it not there has that me who sing for you  
 'In this event, only I am singing for you'.

*Intended interpretation:* None of the other men is singing for his own interlocutor. [mean: 3.96; SD: 2.11]

Both examples (58)-(59) involve two discourse participants contrasting with other pairs of interlocutors with respect to some property. But while both discourse participants are expressed with strong pronouns (*moi* and *toi*) in (59), which can be focused, the second indexical in (58) is a non-focusable clitic *t'* as in examples of section 3.1. Thus, only example (59) is in principle amenable to a complex focus analysis; the supersloppy reading in (58) can only derive from an indexical e-type analysis.

The results reveal that (58)-(59) are comparable in ratings to their counterpart English examples (e.g. (54)-(55)); both (58) and (59) obtained intermediate judgments. This is expected in (59), where a complex focus analysis predicts intermediate judgments as discussed in section 2.4 regarding English examples like (54)-(55). But the result for (58), which does not significantly differ ( $p=0.68$ ) from that for example (59), is more surprising. It suggests that an indexical e-type analysis can apply to focus constructions not only when the alternatives are restricted to discourse participants as in examples like (56)-(57) discussed in section 3.1, but also when they involve non-discourse participants as in (58)a.

This hypothesis is corroborated by the fact that examples like (60) (with no c-command relation between the indexicals, cf. (32)) are significantly more degraded than (58) ( $p=0.02$ ).

- (60) *Nicole and her partner take ballroom dancing classes. At the end of the class, the teacher asks each couple to comment on their performance. Nicole's partner tells her:*

Il n' y a que la chorégraphie que j' ai choisie qui t' a fait  
 it not here has that the choreography that I have chosen that you.CL has made  
 rire.  
 laugh

‘Only the choreography I chose made you laugh.’

*Intended interpretation:* The choreographies the other dancers chose did not make their partner laugh. [mean: 2.75; SD: 2.03]

As discussed in section 2.4, the absence of contrast between the English counterparts of (60) and (58) (i.e. (32) and (25)) supports a complex focus analysis. Conversely, the contrast between (60) and (58) supports an indexical e-type hypothesis for (58).

Specifically, these results suggest that the pragmatically relevant alternative individuals to the referent of the focused indexical *moi* (i.e. the other men taking part in the speed-dating event) should be attributed the property in (61).

(61)  $\llbracket \textit{really listen to the INTER}(me_i) \rrbracket^{c.g.w} = \lambda x. x \textit{ really listen to the INTER}(x)$

Given that the function INTER presupposes that its argument are members of the context, this implies that the supersloppy interpretation in (58) requires alternative contexts to be accessed, so that each alternative dating man can be construed as the speaker of an alternative context.

One argument I provided in Charnavel (2019: 474) against this hypothesis is the exclusion of supersloppy readings in ellipsis contexts in which the reply is not addressed to the original speaker.<sup>22</sup> This was supposed to show that the context variable cannot remain open in focus alternatives. But the fact that the two interlocutors must remain the same in the original utterance and in the reply does not entail that the context is fixed: even in that configuration (see (1)) does the context change since speaker and addressee switch.<sup>23</sup>

Another argument I provided in Charnavel (2019: 493) is that overgeneration would result from letting the alternatives to a focused name be a set of individual characters as is the case if *only* quantifies over contexts. But we can here adopt the same solution that Beaver & Clark (2008: 95-102) propose on a similar problem in the domain of intensions. To avoid double-counting of individuals in the alternative set, we can simply assume that the relevant set of individual characters is pragmatically constrained by contextual covers (cf. conceptual covers in Aloni 2000): in each context, each individual should instantiate one and only one character. This hypothesis is supported by the slight deviance of (58) as compared to basic

<sup>22</sup> The scenario I provided (imagined by Bevington 1998: 100) is as follows: two lovers (Paul and Julie) are watching a movie, in which one of the characters says *I love you* to another character; Paul turns to Julie and says *I do, too*. As reported in Bevington (1998) and Charnavel (2019), only the strict reading is available in this situation. In my revised view, the exclusion of the supersloppy reading is due to an independent factor related to pragmatic rules of dialog coherence.

<sup>23</sup> As acknowledged in Charnavel (2019: 486), the fact that location indexicals like *here* can also trigger supersloppy readings in ellipsis contexts further shows that the context variable cannot be saturated before copy into the ellipsis site. This fact was confirmed by the French questionnaire. It also revealed that supersloppy interpretations in focus constructions were as available with location indexicals (e.g. *ici* ‘here’) as with person indexicals (e.g. (58)–(59)). But given that *ici* is not a clitic, this fact does not specifically support an indexical e-type analysis.

supersloppy cases like (1), which can be attributed to the pragmatic work required to access the relevant alternatives.<sup>24</sup>

All these considerations thus suggest that quantification over contexts may after all be available in languages like French or English that lack indexical shifting in attitude contexts (cf. Cable 2005, Kratzer 2009 vs. Schlenker 2003, Anand 2006, i.a.). But I will here leave this issue open for further research because two further pieces of data challenge this conclusion.

First, we saw that the unacceptability of example (60), which does not involve c-command between the two indexicals, supports the indexical e-type hypothesis for such examples. But unexpectedly, similar examples with strong pronouns instead of clitics obtained similar ratings ( $p=0.76$ ) as shown in (62).

(62) *Christel has just discussed with her friends the relation between their partners and their family. Christel reports the conversation to her partner:*

Il n' y a que les gens de ma famille qui ne font jamais de  
it not there has that the people of my family who not make never of  
remarques sur toi.  
remarks on you

'Only the people in my family never make comments about you.'

*Intended interpretation:* The people in the other families make comments about their partner. [mean: 3.22; SD: 1.88]

This result may undermine the argument mentioned above based on the contrast between (60) (with clitics and no c-command) and (58) (with clitics and c-command) by suggesting that another factor than the absence of c-command may also be responsible for the degradedness of examples like (60). Nevertheless, it is to be noted that while (60) and (58) (with clitics) significantly differ in ratings ( $p=0.02$ ), (62) and

(59) (with strong pronouns) do not ( $p=0.11$ ), which is compatible with the complex focus analysis. The contrast between (58) and (60) and the absence of contrasts between (59) and (62), (60) and (62), and (58) and (59) suggest that another variable is at stake to be clarified. In this respect, remember that examples with focusable indexicals in English (see e.g. (27)-(28)) that are predicted to be amenable to both complex focus and indexical e-type analyses unexpectedly turned out to be degraded. Examples with strong pronouns in French fall in the same category.<sup>25</sup>

Second, the results of the French questionnaire reveal no significant difference ( $p=0.77$ ) between (58) and examples like (63) in which only the focused element does not refer to a discourse participant.

<sup>24</sup> Similarly, I argued in section 2.4 that the pragmatic work required to construct the relevant alternative pairs in (25)/(54) is responsible for the contrast with (1). This hypothesis extends to (59), and suggests that the cost of pragmatic work is comparable in the case of complex focus (e.g. (59)) and quantification over contexts (e.g. (58)).

<sup>25</sup> In relation to this issue, it would thus be interesting to test French examples with strong pronouns that do not involve cross-contextual alternatives, that is, the counterpart of examples (36)-(37) with clitics.

- (63) *Alexandra attends an English class. The teacher asks every student to have a small conversation with their neighbor. Alexia complains about her neighbor:*

Il n' y a qu' elle qui ne m' écoute pas !

it not there has that she who not me.CL listen not

'Only she is not listening to me.'

*Intended interpretation:* all the other students are listening to their own neighbor. [mean: 4.03; SD: 1.99]

We saw that in English, the absence of contrast between (31) (with proper name and indexical) and (25)-(26) (with two indexicals) supports an analysis in terms of complex focus against an indexical e-type analysis. Similarly, the absence of contrast between (58) and (63) could undermine the indexical e-type analysis for (58). That said, this result may come from the fact that the focused element in (63) is not a proper name as in (31), but a pronoun (*elle*) and can thus itself be construed as an e-type pronoun (i.e. as the hidden description *my neighbor*). In that case, a supersloppy interpretation can arise as long as the possessive can act as the relevant binder as independent data suggest (see Charnavel 2019: fn. 23).<sup>26</sup>

In sum, our French data, which show that supersloppy readings are available with non-focusable clitics in the case of cross-contextual alternatives, suggest that quantification over contexts is possible in focus constructions. But some data points, which are not straightforwardly explained by this hypothesis, would need to be further tested before this conclusion can be strengthened and elaborated upon. I leave this to further research.

#### 4. Conclusions

To conclude, the availability of non-focusable clitics in French<sup>27</sup> allows us to refine the analysis of supersloppy readings proposed in Charnavel (2019) on the basis of English data. French data reveal that this analysis, which is based on indexical e-type construal, is not only available in ellipsis constructions, but also in focus constructions. They further show that this analysis can directly borrow ingredients from semantic analyses of indexical binding (i.e. person presupposition weakening in

<sup>26</sup> This could furthermore explain why examples like (ii) in fn. 13 are not fully unacceptable (although they are significantly worse than examples like (37) as mentioned in fn. 13, they are significantly better than examples like (6)). In such examples, the third person pronoun can similarly be construed as a hidden description containing an indexical (e.g. *him* as *my partner*).

<sup>27</sup> Of course, any other language able to express indexicals with non-focusable elements would be suited to make the same point. It would be interesting to further test the hypothesis in such other languages.

focus alternatives). The analytical parallel between supersloppy and sloppy readings of indexicals proposed by Charnavel (2019) comes out stronger.

These new results thus strengthen the arguments against Kaplan's fixity theory of indexicals. The interpretation of indexicals is not always fixed, because indexicals do not necessarily directly depend on the context, but can also depend on each other. That's why they can be bound and construed as descriptions even if one of their specificities remains their context-dependency as argued by Kaplan.

Furthermore, our revised analysis of supersloppy readings based on French data provides new insight into the theory of e-type pronouns. This analysis relies on the hypothesis that indexicals can be construed as e-type pronouns, contrary to what is usually assumed, as long as their person information is not lost. This entails that in general, the featural information of pronouns must be retained under e-type construals, which constrains the choice of hidden descriptions. This hypothesis opens new perspectives on the debate about the formal link requirement (see e.g. Heim 1990).

### Acknowledgments

For helpful feedback on the development of my work since the publication of Charnavel (2019), many thanks to the audiences of YYC Pronouns workshop in Calgary (2019), colloquia in Geneva (2020, 2022) and Lausanne (2022), and the online workshop on "Romance Languages: Recent Contributions to Linguistic Theory" (2022). I am also grateful to all the participants who completed my online French experiments. Finally, a special thanks to Roberta Pires de Oliveira and Cilene Rodrigues for organizing the workshop on Romance languages and editing the present volume based on the contributions of this workshop.

### References

- Aloni, Maria. 2000. *Quantification under Conceptual Covers*. Ph.D. thesis, University of Amsterdam.
- Anand, Pranav. 2006. *De de se*. Ph.D. thesis, Massachusetts Institute of Technology.
- Anand Pranav, & Andrew Nevins. 2004. Shifty Indexicals in Changing Contexts. In *Proceedings of SALT 14*, 20-37.
- Balachandran, Lalitha. 2022. Reciprocal Questions and the Pragmatics of Argument Reversing Verb Phrase Ellipsis. To appear in the *Proceedings of Sinn und Bedeutung* 26.
- Bassi, Itai. 2019. Fake Indexicals and their Sensitivity to Focus. In Maggie Baird & Jonathan Pesetsky (eds.), *Proceedings of the North Eastern Linguistics Society* 49, 111-124. Amherst, MA: GLSA, Dept. of Linguistics.

Beaver, David I., & Brady Z. Clark. 2009. *Sense and sensitivity: How focus determines meaning* (Vol. 12). John Wiley & Sons.

Bevington, Barbara. 1998. *Indexical Expressions: Syntax and Context*. Ph.D. thesis, The City University of New York.

Cable, Seth. 2005. *Binding Local Person Pronouns without Semantically Empty Features*. Ms., Cambridge, MA: Massachusetts Institute of Technology.

Cardinaletti, Anna, & Michal Starke. 1994. The typology of structural deficiency – On the three grammatical classes. *Working Papers in Linguistics* 4(2), 41-109. University of Venice.

Charnavel, Isabelle. 2019. Supersloppy Readings: Indexicals as Bound Descriptions. *Journal of Semantics* 36, 453-530. [10.1093/Jos/Ffz014](https://doi.org/10.1093/Jos/Ffz014)

Chung, Sandra. 2000. Close encounters with pronouns in VP ellipsis. In Sandy Chung, Jim McCloskey & Nathan Sanders (eds.), *The Jorge Hankamer Webfest*. <https://babel.ucsc.edu/jorgewebfest/chung.html>.

Cooper, Robin. 1979. The interpretation of pronouns. In Frank Heny & Helmut Schnelle (eds.), *Syntax and Semantics 10: Selections from the Third Groeningen Round Table*, 61-92. New York; Academic Press.

Cooper, Robin. 1983. *Quantification and Syntactic Theory*. Reidel. Dordrecht.

Elbourne, Paul. 2001. E-type anaphora as NP deletion. *Natural Language Semantics* 9: 241-88. <https://doi.org/10.1023/A:1014290323028>

Engdahl, Elisabet. 1986. *Constituent Questions*. Reidel. Dordrecht.

Evans, Gareth. 1977. Pronouns, quantifiers and relative clauses. *Canadian Journal of Philosophy* 7: 467-536. <http://doi.org/10.1080/00455091.1977.10717030>

Evans, Gareth. 1980. Pronouns. *Linguistic Inquiry* 11: 337-62.

Geach, Peter T. 1962. *Reference and Generality*. Cornell University Press. Ithaca, NY.

Hardt, Daniel. 1993. *Verb Phrase Ellipsis: Form, meaning, and processing*. Ph.D. thesis, Philadelphia: University of Pennsylvania.

Hedberg, Nancy. 2013. Multiple focus and cleft sentences. In Katharina Hartmann & Tonjes Veenstra (eds.), *Cleft Structures* (Linguistik Aktuell), 227-250. Amsterdam: John Benjamins.

Heim, Irene. 1990. E-type pronouns and donkey anaphora. *Linguistics and Philosophy* 13: 137-77. <https://doi.org/10.1007/BF00630732>

- 
- Heim, Irene. 1991. *Classnotes from Seminar on Control*. MIT Press. Cambridge.
- Heim, Irene. 2008. Features on bound pronouns. In Daniel Harbour, David Adger & Susana Béjar (eds.), *Phi Theory: Phi Features Across Modules and Interfaces*, 35-56. Oxford University Press. Oxford.
- Heim, Irene, & Angelika Kratzer. 1998. *Semantics in Generative Grammar*. Blackwell. Oxford.
- Jacobson, Pauline. 1977. *The Syntax of Crossing Coreference Sentences*. Ph.D. Thesis, UC Berkeley. Published by Garland Press (Outstanding Dissertations in Linguistics Series), New York: 1980.
- Jacobson, Pauline. 2012. The direct compositionality and “Uninterpretability”: The case of (sometimes) “Uninterpretable” features on pronouns. *Journal of Semantics*: 1-39. <http://doi.org/10.1093/jos/ffs005>
- Johnson, Kyle. 2001. What VP ellipsis can do, and what it can't, but not why. In Mark Baltin and Chris Collins (eds.), *The Handbook of Contemporary Syntactic Theory*, chapter 14, 439-479. Malden, Mass: Blackwell Publishers.
- Kaplan, David. 1989. Demonstratives. In Joseph Almog, John Perry & Howard Wettstein (eds.), *Themes from Kaplan* [original manuscript in 1977], 481-614. Oxford University Press. New York.
- Karttunen, Lauri. 1969. Pronouns and variables. In Robert Binnick, Alice Davison, Georgia Green & Jerry Morgan (eds), *Fifth Regional Meeting of the Chicago Linguistics Society*, 108-15. University of Chicago, Chicago, Illinois.
- Kim, Christina S., Gunlogson, Christine, Tanenhaus, Michael K., & Jeffrey T. Runner. 2015. Context-driven expectations about focus alternatives. *Cognition* 139, 28-49. [10.1016/j.cognition.2015.02.009](https://doi.org/10.1016/j.cognition.2015.02.009)
- Kratzer, Angelika. 2009. Making a pronoun: fake indexicals as windows into the properties of pronouns. *Linguistic Inquiry* 40: 187–237. <http://www.mitpressjournals.org/doi/pdf/10.1162/ling.2009.40.2.187>
- Krifka, Manfred. 1991. A compositional semantics for multiple focus constructions. In Steven Moore & Adam Zachary Wyner (eds.), *Proceedings of SALT 1*: 127–58. Ithaca, NY: Cornell Working Papers in Linguistics 10.
- Lobeck, Anne C. 1995. *Ellipsis: Functional heads, licensing, and identification*. Oxford University Press on Demand.
- McKillen, Alanah. 2016. *On the Interpretation of Reflexive Pronouns*. Ph.D. thesis, McGill University.



Merchant, Jason. 2001. *The Syntax of Silence: Sluicing, Islands, and Identity in Ellipsis*. Oxford, NY: Oxford University Press.

Rebuschi, Georges. 1994. When tu is my alter ego (and vice versa). In Natàlia Catala & Maria Bargalló (eds.), *Proceedings of the IV Colloquium of Generative Grammar*. Università Rovira i Virgili, 267-93. Tarragona.

Rebuschi, Georges. 1997. Quirky dependence: discourse pronouns and predicate ellipsis. In Francis Corblin, Danièle Godard & Jean-Marie Marandin (eds.), *Empirical Issues in Formal Syntax and Semantics. Selected Papers from the Colloque de Syntaxe et de Sémantique de Paris (CSSP 95)*, 171-91. Peter Lang. Berne.

Rooth, Mats E. 1985. *Association with Focus (Montague Grammar, Semantics, Only, Even)*. University of Massachusetts Amherst.

Rullmann, Hotze. 2003. Additive particles and polarity. *Journal of Semantics* 20(4): 329-401. <https://doi.org/10.1093/jos/20.4.329>

Sag, Ivan. & Jorge Hankamer. 1984. Toward a theory of anaphoric processing. *Linguistics and Philosophy* 7: 325–45.

Sauerland, Uli. 2008. Implicated presuppositions. In Anita Steube (ed), *The Discourse Potential of Underspecified Structures*, 581-600. Berlin; New York: Walter De Gruyter.

Sauerland, Uli. 2013. Presuppositions and the alternative tier. In Todd Snider (ed.), *Proceedings of the 23rd Semantics and Linguistic Theory Conference (SALT 23)*: 156-73. Ithaca, NY: CLC Publications

Schlenker, Philippe. 2003. A plea for monsters. *Linguistics and Philosophy* 26: 29-120. <https://doi.org/10.1023/A:1022225203544>

Schlenker, Philippe. 2018. Indexicals. In Sven Ove Hansson & Vincent Hendricks (eds.), *Introduction to Formal Philosophy*, 297-321. Springer International Publishing, Cham.

Wurmbrand, Susi. 2017. Feature sharing or how I value my son. In Claire Halpert, Hadas Kotek & Coppe van Urk (eds.), *The Pesky Set: Papers for David Pesetsky*, 173-182. Cambridge, MA: MIT Working Papers in Linguistics 80.