

# Pronoun Copying and the Realization of Copies

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## 1. Introduction

In this paper, I argue for the claim in (1).

- (1) Pronouns can spell out full copies of lexical DPs.  
(e.g. Zaenen et al. 1981; Pesetsky 1998; Sichel 2014; Harizanov 2014)

If (1) is correct, then we expect to find at least *three configurations*, depending on which copy is spelled out as a pronoun:

- (2) a. **Lowest copy:** [ ... *the book* ... *it* ... ] *Resumption*  
b. **Highest copy:** [ ... *it* ... *the book* ... ] *Clitic/subject doubling*  
c. **Intermediate copy:** [ ... *the book* ... *it* ... <~~*the book*~~> ... ] *Pronoun copying*

That (2a) and (2b) might underlie some instances of resumption and clitic doubling has been suggested in previous work (e.g. Zaenen et al. 1981; Engdahl 1985; Pesetsky 1998; Kandybowicz 2007; Harizanov 2014; Sichel 2014). This paper offers a novel instance of (2c) in the Nilotic language Dinka, in which intermediate copies left by successive-cyclic movement at the *vP* edge are spelled out as pronouns:

- (3) *Plural pronoun copying at Dinka verb phrase:*

a. **Kêek** áa-cíí Áyèn [<sub>vP</sub> **kêek** tíŋ].  
**3PL** 3PL-PRF.NS Ayen.GEN **3PL** see.NF  
'Them, Ayen has seen.'

b. Ye **kôc-kó** yíí Ból [<sub>vP</sub> **kêek** luêeel è cíí Áyèn [<sub>vP</sub> **kêek** tíŋ]]?  
be **people-which** HAB.NS Bol.GEN **3PL** say.NF C PRF.NS Ayen.GEN **3PL** see.NF  
'Which people does Bol say Ayen has seen?'

I also show that the Dinka pronoun copying patterns display an asymmetry between person and number that mirrors asymmetries in other pronoun copying constructions. In addition, the copying pattern in (3a–b) shows a systematic gap, in that it is limited to plural DPs. I argue that these asymmetries and gaps point to a theory in which pronoun copy spell-out reflects *partial spell-out*, or spell-out of just the functional layer of a DP copy.

## 2. Resumption and clitic/subject doubling

### 2.1. Resumption as pronominal spell-out of a lower copy

Much work on resumption has shown that some languages have *island-sensitive resumptive pronouns* that act like full copies of their antecedents (e.g. Zaenen et al. 1981; Engdahl 1985; Aoun et al. 2001; Boeckx 2003; McCloskey 2006; Sichel 2014; cf. Asudeh 2012). In Lebanese Arabic and Hebrew, for example, resumptive pronouns may reconstruct for variable binding (4a), and anaphor binding (4b):

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(4) *Lebanese Arabic resumptives reconstruct for variable binding:*

- a. **təlmīiz-a<sub>i</sub> l-kəs-leen** ma baddna nɣabbir [DP wala mʔallme<sub>i</sub>] [CP ʔanno l-mudirra  
**student-her the-bad** NEG want.1PL tell.1PL no teacher that the-principal.SF  
 [faħaʔət-o mn l-madrəse]  
 expelled.3SF-him from the-school  
 ‘Her bad student<sub>i</sub>, we don’t want to tell any teacher<sub>i</sub> that the principal expelled him from school.’  
 (Lebanese Arabic; Aoun et al. 2001:392)
- b. **ha-šmu’a al acmo<sub>i</sub>** [CP še-dani<sub>i</sub> xašaš mimena] hufca al yedey rani.  
**the-rumor about himself** C-dani feared from.it was.spread by Rani  
 ‘The rumour about himself that Dani feared was spread by Rani.’  
 (Hebrew; Sichel 2014:661)

2.2. *Clitic and subject doubling as pronominal spell-out of a higher copy*

A similar argument has been made for clitic doubling (e.g. Sportiche 1996; Harizanov 2014). Doubled clitics act as spell-outs of full copies (Anagnostopoulou 2003; Harizanov 2014). I illustrate with variable binding (Anagnostopoulou 2003). As has been shown for Greek, Spanish, and Bulgarian, clitic doubling allows the associate to bind from the position of the clitic (5a–b):

(5) *Clitic doubling allows object to bind into subject:*

- a. \*[DP I mitera **tu<sub>i</sub>**] sinodhese [DP **to kathe pedhi<sub>i</sub>**].  
 the mother **his** accompanied **the every child**  
 ‘His<sub>i</sub> mother accompanied every child<sub>i</sub>.’
- b. [DP I mitera **tu<sub>i</sub>**] **to** sinodhese [DP to kathe pedhi<sub>i</sub>].  
 the mother his **3MS.ACC** accompanied the every child  
 ‘His<sub>i</sub> mother accompanied every child<sub>i</sub>.’ (Greek; Anagnostopoulou 2003:207)

Another construction argued to involve this configuration is subject doubling (Holmberg and Nikanne 2008), as in colloquial Finnish:

(6) *Initial pronoun may double subject in Finnish:*

- Ne** sai **kaikki lapset** samat oireet.  
**3PL** got **all children** same symptoms  
 ‘All the children got the same symptoms.’ (Finnish; Holmberg and Nikanne 2008:326)

*Wh*-copying in languages like German and Passamaquoddy may also instantiate this configuration (Felser 2004; Bruening 2006).

3. *Ké-copying in Dinka*

If the pronouns can realize the highest and lowest copy, we might wonder about the possibility of spelling out intermediate copies as pronouns as well, such as the copies bolded in (7).<sup>1</sup>

- (7) [ ... *the book* ... <**the book**> ... <**the book**> ... <*the book*> ... ]

This section shows that a clear case of (7) is found in the Nilotic language Dinka (South Sudan), in a process I call *ké*-copying. This data comes from fieldwork on Dinka Bor, the southeastern dialect, in the Boston Dinka community.

*Ké*-copying refers to the fact that the 3rd person plural pronoun *ké(ek)* accompanies  $\bar{A}$ -movement through the edge of *vP* (8a–b).

<sup>1</sup> Whether *wh*-copying could instantiate this is a topic of debate (e.g. Fanselow and Cavar 2000; Felser 2004; Pankau 2013).

(8) *Ā-movement of plural nominal triggers pronoun copying:*

- a. **Kêek** áa-cíí Áyèn [<sub>VP</sub> **ké** tííŋ].  
**3PL** 3PL-PRF.NS Ayen.GEN **3PL** see.NF  
 ‘Them, Ayen has seen.’

*Topicalization*

- b. Bòl à-cé **ròòr** [<sub>CP</sub> cè [<sub>VP</sub> **ké** láat]] tííŋ.  
 Bol 3SG-PRF **men** PRF.3SG **3PL** insult.NF see.NF  
 ‘Bol has seen the men he has insulted.’

*Relativization*

The first task of this paper is to motivate the analysis of this phenomenon as multiple copy spell-out.

3.1. *Ké-copying is copying of a pronoun*

Let me first show that *ké*-copying involves a pronoun. The first piece of evidence for this is that the copied pronoun can take the same forms as independent occurrences of the pronoun. Like all pronouns in Dinka, the 3PL pronoun has a full (*kêek*) and reduced form (*ké*) (9a–b).

(9) *3rd person pronoun has full and reduced form:*

- a. Ròòr áa-cé **ké** tííŋ.  
 men 3PL-PRF **3PL** see.NF  
 ‘The men have seen them.’
- b. Ròòr áa-cé **kêek** tííŋ.  
 men 3PL-PRF **3PL** see.NF  
 ‘The men have seen them.’

*Ké*-copying shows the same variation:<sup>2</sup>

(10) *Ké-copying allows full and reduced forms:*

- a. Yè **kôc-kó** cíí Bòl **ké** tííŋ?  
 be **people-which** PRF.NS Bol.GEN **3PL** see.NF  
 ‘Which people has Bol seen?’
- b. **Kêek** áa-cíí Áyèn **kêek** tííŋ.  
**3PL** 3PL-PRF.NS Ayen.GEN **3PL** see.NF  
 ‘Them, Ayen has seen.’

In addition to this, we can show that copied *ké* is free-standing. It can be followed by the verb (11a), an object (11b), or nothing (11c).

(11) *Copied pronoun is free-standing:*

- a. Yè **kôc-kó** cíí Bòl [<sub>VP</sub> **ké(ek)** tííŋ]?  
 be **people-which** PRF.NS Bol.GEN **3PL** see.NF  
 ‘Which people has Bol seen?’
- b. Yè **uáan-kó** cíí Bòl [<sub>VP</sub> **ké(ek)** Áyén tuóoc]?  
 be **places-which** PRF.NS Bol.GEN **3PL** Ayen send.NF  
 ‘Which places has Bol sent Ayen to?’
- c. Yè **kôc-kó** nííér Bòl [<sub>VP</sub> **ké(ek)**]?  
 be **people-which** love.NS Bol.GEN **3PL**  
 ‘Which people does Bol love?’

If *ké* were a functional head in the extended projection of the verb, we would expect it to move along with the verb, but it does not.

<sup>2</sup> There is no constraint on which form you use, so that you can mix and match in longer chains.

### 3.2. *Ké-copying is a reflex of intermediate movement through vP*

I now show that *ké-copying* diagnoses intermediate movement through the verb phrase. *Ké-copying* happens at every *vP* edge on the path of movement:

(12) *Ké-copying targets each verb phrase edge:*

Yè **kôɔc-kó** [CP yíí Bôl [vP **\*(ké)** luêeel [CP è cǐí Áyèn [vP **\*(ké)**  
 be **people-which** HAB.NS Bol.GEN **3PL** say.NF C PRF.NS Ayen.GEN **3PL**  
 t̥iŋ]]]]]?  
 see.NF  
 ‘Which people does Bol say Ayen has seen?’

It is not limited to objects. Plural adjuncts that originate in the *vP* also trigger *ké-copying* (13a–b),

(13) *Ké-copying with plural modifiers:*

- a. Yè **uǰáan-kó** cǐí Bôl [vP **ké** Àyén tuòɔɔc]?  
 be **places-which** PRF.NS Bol.GEN **3PL** Ayen send.NF  
 ‘Which places has Bol sent Ayen to?’
- b. Ye **tóony** **kê** dǐí cǐí Bôl [vP **ké** cuǐin thâal]?  
 be **pots** PL **how** PRF.NS Bol.GEN **3PL** food cook.NF  
 ‘How many pots has Bol cooked food with?’

In addition, we see a subject/non-subject asymmetry. Extraction of a local subject cannot trigger *ké-copying*:

(14) *Subjects are not doubled by a plural ké locally:*

Yè **kôɔc-kó** cé [vP **\*(ké)** cuǐin cáam]?  
 be **people-which** PRF **3PL** food eat.NF  
 ‘Which people have eaten food?’

With long-distance subject extraction, however, a copied *ké* must appear at higher *vP* edges (15).

(15) *Plural subjects are doubled by kê in higher clauses:*

Yè **kôɔc-kó** yùukù [vP **ké** tàak [CP càam [vP **\*(ké)** cuǐin]]]?  
 be **people-which** HAB.1PL **3PL** think.NF eat **3PL** food  
 ‘Which people do we think are eating food?’

This makes sense if *ké-copying* diagnoses intermediate movement to *vP*. If subjects are generated at the edge of the verb phrase, they only undergo intermediate successive-cyclic movement to higher *vP* edges in long-distance movement.

### 3.3. *Copied ké is the spell-out of a gap*

Let me finally motivate the idea that copied *ké* realizes a gap. Dependencies with *ké-copying* are island-sensitive, as the relative clause example in (16) illustrates.

(16) *Ké-copying is island-sensitive:*

\*Yè **kôɔc-kó** cǐí Bôl ké [DP ráan [CP cé **ké** cuǐin cáam]] t̥iŋ]?  
 be **people-which** PRF.NS Bol.GEN 3PL person PRF **3PL** food eat.NF see.NF  
 ‘Which people has Bol seen someone who has eaten food with them?’

In addition, *ké-copying* chains show *reconstruction effects*. Dinka’s Condition A anaphor, which can trigger *ké-copying*, may reconstruct for local (17a), long-distance (17b), and intermediate binding (17c).

(17) *Ké-copying allows reconstruction:*

- a. **Ròth-kén<sub>i</sub>** áa-nhiárkè<sub>i</sub> **kêek**.  
**self-PL.3PL** 3PL-love.3PL **3PL**  
 ‘Themselves, they love.’ *Local reconstruction*
- b. **Ròth-kén<sub>i</sub>** áa-yùukù **ké** luêeel [CP è nhiárkè<sub>i</sub> **kêek**].  
**self-PL.3PL** 3PL-HAB.1PL **3PL** say.NF C love.3PL **3PL**  
 ‘Themselves, we say that they love.’ *Long-distance reconstruction*
- c. **Ròth-kén<sub>i</sub>** áa-yìikè<sub>i</sub> **ké** luêeel [CP è nhiéer Bòl **kêek**].  
**self-PL.1PL** 3PL-HAB.3PL **3PL** say.NF C love.NS Bol.GEN **3PL**  
 ‘Themselves, they say that Bol loves.’ *Intermediate reconstruction*

Dependencies with *ké*-copying then do not behave any differently than other movement dependencies.

Finally, there is evidence from the interaction of *ké*-copying and verb phrase V2 that suggests *ké*-copying realizes an intermediate copy. Observe that copied *ké(ek)* appears before an in situ object when a non-object is extracted (18a–b).

(18) *Ké may appear before object:*

- a. Yè **uráan-kó** cǐ Bòl [<sub>vP</sub> **ké** Àyén tuòòòc]?  
 be **places-which** PRF.NS Bol.GEN **3PL** Ayen send.NF  
 ‘Which places has Bol sent Ayen to?’
- b. Yè **tóony kê díi** cǐ Bòl [<sub>vP</sub> **ké** cuñin thaal]?  
 be **pots PL how** PRF.NS Bol.GEN **3PL** food cook.NF  
 ‘How many pots has Bol cooked food with?’

However, the Dinka verb phrase edge otherwise shows a strict V2 requirement and is strictly limited to one object. No adverbs or PPs can ever appear there, for example. Non-copied instances of *ké(ek)* obey this restriction and only appear at the *vP* edge by themselves (19a–b).

(19) *Independent ké(ek) cannot occur between subject and object:*

- a. Bòl à-cé [<sub>vP</sub> **ké(ek)** yiéén kitáap].  
 Bol 3SG-PRF **3PL** give.NF book  
 ‘Bol has given them a book.’
- b. \*Bòl à-cé [<sub>vP</sub> **ké(ek)** kitáap yiéén].  
 Bol 3SG-PRF **3PL** book give.NF  
 ‘Bol has given them a book.’

We can make sense of this pattern if *ké* realizes an intermediate copy. I posit two movement-driving features on *v*: one  $\bar{A}$ -probe for intermediate successive-cyclic movement and one  $\varphi$ -probe, which attracts a DP object. If correct, there are two copies at the *vP* edge only in the case of intermediate movement; *ké* simply spells out that copy.

I have argued that copied *ké* is the spell-out of an intermediate copy in the configuration in (20).

(20) [ ... *the books* ... **they** ... **they** ... <*the-books*> ... ]

Not only is this additional evidence that pronouns can spell out more articulated copies, it is an instance of multiple copy spell-out at the *vP* edge. As a result, *ké*-copying provides a novel argument for the idea that *vP* is a cyclic domain, in addition to CP, as proposed by Chomsky (1986 et seq.).

#### 4. Asymmetries, gaps, and partial spell-out

Having shown that pronouns can act as copies in all of the positions that movement leaves copies, the question that arises is what spell-out mechanism allows pronouns to spell out full copies. In this section, I argue that pronoun copying arises by means of *partial spell-out*. In particular, I propose that multiple copy spell-out of a DP obligatorily involves NP deletion (in the sense of Elbourne’s 2001 treatment of

E-type pronouns), because secondary copies must be as minimal as possible. If pronouns represent the functional layer of a DP (Postal 1969; Elbourne 2001), the result of this is a pronoun.

In support of this idea, I show that pronoun copying constructions may sometimes display gaps (some antecedents do not trigger copying) as well as a person-number asymmetry (copied pronouns may mismatch in person, but not number). I argue that asymmetries and gaps result from partial spell-out. Gaps arise when NP deletion does not leave enough structure to create a pronoun. A person-number asymmetry arises when NP deletion deletes person features that could appear on the pronoun.

#### 4.1. *Partial spell-out*

I first outline the partial spell-out approach. I adopt two simplifying assumptions about multiple copy spell-out and copy deletion, given in (21).

(21) **Two assumptions about copy deletion:**

1. Multiple copy spell-out arises when a morphosyntactic/morphophonological requirement prevents full deletion of a copy.
2. Provided one occurrence of every head is spelled out, as much material as possible is deleted.

(See Landau 2006 for an example of a deletion algorithm along these lines.)

Given these two assumptions, it follows that DP copies in the context of multiple copy spell-out must receive a “minimal” spell-out. Because the heads that make up the DP are already pronounced elsewhere, it is not necessary for the secondary copy to be a “faithful” copy. As long as some material remains to satisfy the first assumption alluded to in (21), subdeletion can and must apply.

In particular, I propose that DP copies in the context of multiple copy spell-out must undergo *NP deletion*, in the sense of Elbourne (2001). I adopt the structures in (22a–b) for lexical DPs and pronouns (*cf.* Déchaine and Wiltschko 2002; Moskal, to appear).



Suppose now that the only licit subdeletion operations are those that are independently employed in the grammar. In other words, I suggest that copy deletion cannot just freely carry out subdeletion to whatever heads are capable of being deleted. Rather, I posit that subdeletion is generally prohibited, but that copy deletion may employ ellipsis operations instead to achieve the effect of subdeletion. Because NP deletion/ellipsis is generally available, and secondary copies must be minimal, this operation becomes obligatory in the context of multiple copy spell-out. That DP copies copy as pronouns and not as NPs then derives from the observation that there is a process of NP ellipsis but no corresponding process of D-ellipsis.

Assume then that NP deletion applies to the structure in (22a). Because the remaining functional structure is shared with pronouns (22b), the resulting DP shell can be realized as a pronoun (encoding the idea that pronouns represent the functional layer of a DP, as in Postal 1969 and Elbourne 2001).

Importantly, however, a lexical DP to which NP deletion has applied does not look exactly like a pronoun. As evident above, I propose that there is a phrase encoding person at the core of a pronoun that is absent in DPs (see Gruber 2013 and Moskal, to appear). This means that pronoun copying is only possible in a language if the copied pronoun is capable of spelling out just D and Num. The next section argues that this difference between copied and true-born pronouns gives rise to gaps and asymmetries.

#### 4.2. *Gaps in pronoun copying*

I propose that 3rd person pronouns may vary as to whether they realize both Number and Person, or just the Number phrase. For the sake of concreteness, I adopt the notion of phrasal spell-out from

nanosyntax (e.g. Starke 2009).<sup>3</sup> Suppose, for example, that a 3rd person plural pronoun can in principle spell out 3rd person and plural at the same time, or only plural.<sup>4</sup>

(23) *Two forms of 3rd plural pronouns:*

[3, PL] → pronoun

[PL] → pronoun

Given the model of partial spell-out outlined above, this predicts that we should find gaps in pronoun copying patterns. Suppose a language with multiple copy spell-out only has 3rd person pronouns that realize person and number at the same time. In this language, NP deletion does not leave enough structure for pronoun copying. However, when the relevant DP copy is itself a pronoun, we expect pronoun copying to be possible.

This pattern, in which only pronouns participate in pronoun copying, is commonly found in *wh*-copying. Many researchers working on *wh*-copying have noted that, for many speakers, *wh*-copying is limited to *wh*-pronominals (e.g. Felser 2004:550; Pankau 2013:46–47). Such speakers allow (24a), but disallow copying with complex *wh*-phrases (24b–c).

(24) *Some speakers only tolerate copying with pronouns:*

a. **Wen** glaubst du [<sub>CP</sub> **wen** sie liebt]?

**who** believe.2SG you **who** she loves

‘Which man do you think she loves?’

b. \***Welchen Mann** glaubst du [<sub>CP</sub> **wen** sie eingeladen hat]?

**which man** believe.2SG you **who** man she invited had

‘Which man do you think she has invited?’

(German; Pankau 2013:1,47)

Craenenbroeck and Van Koppen (2002) document similar variation across dialects of Dutch. In Wambeek Dutch, both complex and pronominal subjects can be doubled by a pronoun. However, in other Dutch dialects, such as the Lapscheure or Brabant dialect, only pronouns participate in copying and never complex DPs:

(25) *Subject doubling only with pronominal subjects in Brabant Dutch:*

a. \***Die vrou** komt **zij**.

**that woman** comes **she**

‘That woman will come.’

b. **Zij** komt **zij**.

**she** comes **she**

‘She will come.’

(Brabant Dutch; Craenenbroeck and Van Koppen 2002:56)

In a partial spell-out approach, these patterns follow if 3rd person pronouns in these varieties realize both person and number.<sup>5</sup>

We might also expect to find asymmetries between the different 3rd person pronouns found in a particular language. I argue that this is the case in Dinka. Pronoun copying in Dinka is limited to plurals. It is not possible with  $\bar{A}$ -movement of a singular nominal:

(26) *No pronoun copying with extraction of a singular noun:*

a. Yè **ṅà** [<sub>CP</sub> **c̣ii** Ból [<sub>vP</sub> **ṭiiŋ**]]?

be **who** PRF.NS Bol.GEN see.NF

‘Who has Bol seen?’

<sup>3</sup> This is for ease of exposition. Everything I say here can be translated into a model that denies the possibility of phrasal spell-out. There are several ways of interpreting the idea that pronouns realize both person and number in such a model. One method is to posit operations like Fusion, or head movement. Another is to require the spell-out rules for those pronouns to have contextual restrictions referring to the presence of such structure.

<sup>4</sup> It is also possible that a 3rd person pronoun spells out only person.

<sup>5</sup> This requires that copy deletion is blind to the fact that the DP shell it leaves behind cannot always be realized.

- b. \*Yè ɲà [CP cɪ́ Ból [vP yè(en) tɪ́ɪŋ]]?  
 be who PRF.NS Bol.GEN 3SG see.NF  
 ‘Who has Bol seen?’

I propose that this reflects a difference between the 3rd person plural pronoun *kèek* and the 3rd person singular *yèen*. The morpheme *k(e)* serves as a crossparadigmatic spell-out of plural in Dinka and so I posit that the 3rd person plural spells out only [plural]. As a result, only plural lexical DPs can trigger pronoun copying. In languages with pronoun copying with all antecedents, I suggest that all 3rd person pronouns are realization only of number.

#### 4.3. A person-number asymmetry in pronoun copying

Let me now turn to pronoun copying with a pronoun antecedent. There is another number-related effect in Dinka *ké*-copying that surfaces in this case, which has its counterparts in other languages as well. In particular, *ké*-copying does not match in person when the antecedent is a pronoun.  $\bar{A}$ -movement of a 1st/2nd plural pronoun still triggers pronoun copying, but it is the 3rd person plural pronoun:

(27) *Ké-copying does not match person:*

- a. Wɔ̀ɔk cɪ́ Áyèn [vP ké(ek) tɪ́ɪŋ].  
 1PL PRF.NS Ayen.GEN 3PL see.NF  
 ‘Us, Ayen has seen.’
- b. Wèek cɪ́ Áyèn [vP ké(ek) tɪ́ɪŋ].  
 2PL PRF.NS Ayen.GEN 3PL see.NF  
 ‘You all, Ayen has seen.’

Using person-matching pronouns is ungrammatical (28a–b).

(28) *Copied pronouns cannot match in person:*

- a. \*Wɔ̀ɔk cɪ́ Áyèn [vP wɔ̀(ɔk) tɪ́ɪŋ].  
 1PL PRF.NS Ayen.GEN 1PL see.NF  
 ‘Us, Ayen has seen.’
- b. \*Wèek cɪ́ Áyèn [vP wè(ek) tɪ́ɪŋ].  
 2PL PRF.NS Ayen.GEN 2PL see.NF  
 ‘You all, Ayen has seen.’

This person-number asymmetry is not unique to *ké*-copying, but is found in all other configurations of pronoun copying as well. I start with resumption. Kandybowicz (2007) shows that, in Nupe, long-distance subject extraction must be accompanied by a resumptive pronoun (29).

(29) *Nupe resumptive with long-distance subject extraction:*

- Bagi-zi** Musa gàn [CP gànán \*(a:) nì enyà] o.  
**man-PL** Musa say C 3PL beat drum FOC  
 ‘Musa said that THE MEN beat a drum.’  
 (Nupe; Kandybowicz 2007:124)

As in Dinka, this resumptive pronoun is insensitive to person when the antecedent is a pronoun. Movement of a 1st or 2nd person singular pronoun must use the 3rd person singular resumptive (30a–b):

(30) *1st/2nd person singular subjects resumed by 3rd person singular:*

- a. **Mi** Musa gàn [CP gànán u:/\*mi: pa eci] o.  
 1SG Musa say C 3SG/1SG pound yam FOC  
 ‘Musa said that I pounded a yam.’
- b. **Wo:** Musa gàn [CP gànán u:/\*wo: pa eci] o.  
 2SG Musa say C 3SG/2SG pound yam FOC  
 ‘Musa said that YOU pounded a yam.’



Similarly, 1st and 2nd person plural pronouns are resumed by the 3rd person plural (31a–b):

(31) *1st/2nd person plural subjects resumed by 3rd person plural:*

- a. **Yi:** Musa gàn [<sub>CP</sub> gánán **a:/\*yi:/\*u** pa eci] o.  
**1PL** Musa say C **3PL/1PL/3SG** pound yam FOC  
 ‘Musa said that WE pounded a yam.’
- b. **Ye:** Musa gàn [<sub>CP</sub> gánán **a:/\*wo:/\*u:** pa eci] o.  
**2PL** Musa say C **3PL/2PL/3SG** pound yam FOC  
 ‘Musa said that YOU ALL pounded a yam.’

We can also find this person-number asymmetry when a pronoun spells out a higher copy. In their examination of Finnish subject doubling, Holmberg and Nikanne document a similar asymmetry. For some speakers, the doubled subject need not match in person (32a–d).

(32) *Finnish subject doubling can be person-insensitive:*

- a. **Se** ole-n **minä-kin** lopettanut tupakoinnin.  
**3SG** are-1SG **1SG-too** quit smoking  
 ‘I have quit smoking, too.’
- b. **Ne** ollette **te-kin** lopettanut tupakoinnin.  
**3PL** are.2PL **2PL-too** quit smoking  
 ‘You all have quit smoking, too.’

(Finnish; Holmberg and Nikanne 2008)

No speaker allows subject doubling to display a mismatch in number, however (33a–b).

(33) *Finnish subject doubling is never number-insensitive:*

- a. \***Se** ollaan **me-kin** lopettanut tupakoinnin.  
**3SG** are.1PL **1PL-too** quit smoking  
 ‘We have quit smoking, too.’
- b. \***Se** ollette **te-kin** lopettanut tupakoinnin.  
**3SG** are.2PL **2PL-too** quit smoking  
 ‘You all have quit smoking, too.’

(Finnish; Holmberg and Nikanne 2008)

Finnish then displays the same pattern as Dinka and Nupe.

That this asymmetry is found in all pronoun copying configurations is additional evidence for a unified treatment of these constructions. As with the gaps described above, I propose that this asymmetry is the result of partial spell-out. In particular, suppose that languages may vary with regard to whether the PersP at the core of a pronoun is treated as a functional head like Num(ber), or as an NP that can be deleted. In this view, pronouns can take two forms across languages:



In an NP<sub>PERS</sub> language (34a), NP<sub>PERS</sub> undergoes deletion in pronoun copying and the resulting copied pronoun matches its antecedent only in number, as in Dinka, Nupe, or Finnish.<sup>6</sup> In a PersP language (34b), copied pronouns match pronouns in all features. This happens in Yoruba (Adesola 2010) and Seereer (Baier 2014), for example.

<sup>6</sup> This also explains why 3rd person singular pronouns in Dinka do not trigger copying, since they realize both Num(ber) and NP<sub>PERS</sub>.

## 5. Conclusion

In this paper, I presented a novel instance of multiple copy spell-out at the vP edge in the Nilotic language Dinka. I argued that the counterpart to verb copying with DPs is pronoun copying and proposed a partial spell-out model, according to which NP deletion is obligatory in the context of multiple copy spell-out. This model accounts for the existence of asymmetries and gaps in Dinka and in pronoun copying constructions across languages.

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