

Sloppy non-pronominals in Focus contexts, Focus Binding, and ellipsis

Introduction. Since at least Geach 1962, it is standardly assumed that non-pronominal elements cannot have a sloppy (bound-variable) reading in focus contexts; cf. the contrast in (1) from Geach. However, Roeper (2006) discovered a curious pattern that proved this generalization false. Some of Roeper's examples for which judgments are robust are in (2); (2a), for example, can be uttered in a friends reunion after 20 years, and the object is read sloppily. The significance of Roeper's discovery is that it invalidates textbook analyses of binding, which predict that only pronominal elements are allowable hosts for sloppy readings. This work offers a formally explicit account of sloppy non-pronominals, something that (as far as we are aware) hasn't been carried out yet. Such an account has to do two things: (i) devise a mechanism able to generate them in the first place, and (ii) constrain that mechanism so as to not overgenerate them everywhere (to respect Geach's original observation). We start with establishing empirical generalizations regarding what we believe are the relevant differences between the constructions in (2) and cases like (1a); this is necessary in order to tackle task (ii) later.

- (1) a. Only Satan pities Satan (**✗** *sloppy*) b. Only Satan pities himself (**✓** *sloppy*)
(2) *Examples based on Roeper 2006 where a non-pronominal has a **sloppy** reading*
a. Only Mary still looks like **Mary** (*the rest don't look like **they** used to 20 years ago*).
b. In a foreign culture, only Mary can act like **Mary** (*the rest can't be **themselves***).
c. In front of British royalty, only Fred still talks like **Fred** (*others put on a phony accent*).
d. Only a very odd person still looks like **a very odd person** after using modern make-up techniques (*ordinary people don't look ordinary*). (*sloppy indefinite*)
e. In these old pictures, only the living room still looks like **the living room**. (*slop' definite*)

What makes Roeper's cases special? First, the sentences in (2) all exhibit a 'predicate of comparison' (Moltmann 1997): *looks like, acts like* etc. Second (and more importantly), while the focused subject and the object are structurally identical, they don't exactly refer to the same thing. In particular, they refer to different 'manifestations' of an individual. We propose (3) as the crucial generalization.

- (3) **Generalization:** A non-pronominal N can have a sloppy reading in focus contexts only if it refers to a different **manifestation** than the one referred to by N's antecedent.

'Manifestations' (or 'slices'/'stages') of an individual are different facets of that individual in different situations, positions, times etc. This concept captures the intuition that noun phrases sometimes do not describe the whole individual but rather parts or aspects of it (Carlson 1977; Landman 1989; Geist 2019, a.o.). All the sentences in (2)—independently of *only* and sloppiness—make a claim about different manifestations (in time, situation, etc.) of the same individual; e.g. (2a) says that Mary-now looks the same as Mary-20-years-ago (*a temporal shift isn't required; 2a could also be uttered in a custom party, conveying that Mary is the only one who looks in the custom like the typical way they look*). In contrast, in (1a) it is apparently impossible (even with the help of heavy contextual clues) to construe the two occurrences of 'Satan' as referring to two different manifestations of him. We suggest that the reason for that is that (1a) doesn't involve a predicate of comparison. Why should that matter? note that predicates of comparison have the logical property that if their two arguments refer to the exact same thing, the clause is logically trivial. For instance, anyone looks exactly like they do at any point in time; So if different 'stages' of Mary *weren't* referred to in (2a), that sentence would be trivial and unusable. There is no similar risk of triviality in (1a). We thus propose a last-resort principle: a manifestation-shift is impossible if the reading would be logically contingent without the shift, (4).

- (4) Two structurally-identical DPs in the same minimal clause must refer to the same manifestation of the relevant individual, unless the sentence would then convey logical triviality, in which case one of them can covertly shift the reference to a different (contextually-supplied) manifestation.

Formal analysis of sloppiness. We follow the lead of Kratzer 1991 and Bassi 2019 who encode certain focus dependencies using a special mechanism—*Focus Binding*—and we extend it to deal with sloppy non-pronominals. In this system focused constituents carry indexed F-variables, interpreted by a special assignment function h , (5)-(6), and focus alternatives are delivered by abstracting over h 's, (7). Kratzer proposed that at LF, any element having the same (ordinary) denotation as a focused constituent is allowed to trigger co-varying alternatives, by carrying an occurrence of the same F-index. While Kratzer and Bassi speculate that a second occurrence of the same F-index can only ever exist in ellipsis sites (Kratzer) or be a pronoun (Bassi), we propose to eliminate this stipulation and allow any two elements in focus contexts to be F-coindexed, whether the second is overt/lexical or not, though only the linearly first of them is prosodically accented/stressed. The schematic LF of the sister of *only* in (2a) is in (8), which derives the sloppy reading because it generates the co-varying alternatives in (9) (for more details of the semantics see Büring 2016:ch.10). F-coindexation structures are freely generated, and the result is interpretable as long as F-coindexed elements have the same ordinary value (if two non-codenotational elements are F-coindexed, the result will never satisfy the condition in (10)).

$$(5) \quad \llbracket \alpha_{F_i} \rrbracket^{g,h} = \begin{cases} h(i), & \text{if } i \in \text{dom}(h); \\ \llbracket \alpha \rrbracket^{g,h}, & \text{otherwise} \end{cases} \quad (6) \quad \llbracket \text{Mary}_{F_i} \text{ laughed} \rrbracket^{g,h} = \begin{cases} h(i) \text{ laughed}, & \text{if } i \in \text{dom}(h); \\ \text{Mary laughed}, & \text{otherwise} \end{cases}$$

(7) **Focus Alternatives (ALT):** For any constituent α (and ordinary assignment g),
 $ALT^g(\alpha) := \{ \llbracket \alpha \rrbracket^{g,h} : h \text{ is some focus-assignment function} \}$

(8) $[\text{Mary}_{F_1}]$ still looks like $[\text{Mary}_{F_1}]$ (9) $ALT^g(8) = \{x \text{ still looks like } x : x \in D_e\}$

(10) For any constituent α and assignments g , $\llbracket \alpha \rrbracket^g \in ALT^g(\alpha)$ (Rooth 1992:90)

Preventing overgeneration. Given this system, why can't (1a) realize a F-coindexation structure? We propose a certain economy condition, which requires the lexical content of (non-focused) F-coindexed material to **delete whenever possible**, in such a way that (1a) could never phonologically realize a structure analogous to (8). Here are the details. First, the semantic differences identified earlier between Roeper and non-Roeper cases have a syntactic reflex: reference to a shifted manifestation for an NP is brought about by a **covert operator MANIF(estation)_c** inside the NP, which maps an individual to one of its contextually-salient parts. The full structure of (2a) is thus in (11) (a compositional semantics will be provided). If reference to shifted manifestations is represented syntactically, the principle in (4) which heavily restricts it translates to the claim that $MANIF_c$ cannot be syntactically inserted in non-Roeper cases like (1a). Therefore, were (1a) to have a sloppy reading, its structure would have to be without $MANIF_c$, as in (12) where **the two NPs are identical**. Note we take proper names to be NPs with silent THE (Matushansky 2006; Fara 2015). Finally, we propose as a core stipulation the principle in (13). Since the NP that dominates the object $Mary_{F_1}$ in (11) does not have an identical antecedent, due to the presence of $MANIF_c$, it doesn't delete. ' $Mary_{F_1}$ ' alone is not an allowable target for deletion according to (14). So pronouncing 'Mary' satisfies (13). But in (12) there is identity at the NP level, so (13) dictates that the object must delete. We may assume that a DP headed by THE and followed by deleted NP results in a pronoun (cf. Elbourne 2001), in which case (12) must be realized with 'himself'; in any case the object 'Satan' is unrealizable. We correctly predict that (1a) cannot convey sloppiness.

(11) only $[\text{DP THE } [\text{NP } \text{Mary}_{F_1}]]$ still looks like $[\text{DP THE } [\text{NP } \text{Mary}_{F_1} \text{ MANIF}_c]]$

(12) only $[\text{DP THE } [\text{NP } \text{Satan}_{F_1}]]$ pities $[\text{DP THE } [\text{NP } \text{Satan}_{F_1}]]$

(13) **Chain Realization:** For each non-first element N in a chain of F-coindexed XPs: the smallest **deletable** constituent E that dominates N *must elide, if E has an identical antecedent*.

(14) **Deletable constituents** (Lobeck 1995 a.o.): The sister of D (NP; maximal projection of N) is a deletable constituent. Smaller constituents in the NP are not deletable.

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