Polarity and granularity properties of *some* polarity items and minimizers

In this paper, we argue for a unified analysis of Positive Polarity Items (PPIs) formed with *some*, such as *something, someone, some NP*, and nominal minimizers, such as *a damn thing, a red cent, a drop*. Our analysis capitalizes on Strawson's (1974) observation that the use of *some NP* involves inferences about the availability of a more precise identification of NP. We show that opposite polarity properties of *some*-PPIs and nominal minimizers are derivable from pragmatic requirements on the granularity of the context structure where they can be used.

***Some*-PPIs and nominal minimizers are mirror images of each other.** In the literature, *some*-PPIs are often contrasted with weak Negative Polarity Items (NPIs) like *any* (e.g., Szabolcsi 2004; Nicolae 2012). We begin with the claim that *some*-PPIs should rather be contrasted with nominal minimizers, which have the distribution of strong NPIs (e.g., Collins and Postal 2014). In positive episodic sentences, such as in (1), we can only draw a distinction between *some*-PPIs and both weak and strong NPIs (which are not acceptable there). However, there are three arguments which demonstrate that *some*-PPIs are mirror images of nominal minimizers, but not of weak NPIs.

(1) Mary called someone/*a living soul/*anyone.

First, *some*-PPIs are anti-licensed by Anti-Additive (AA), but not simple Downward Entailing (DE) operators, (2a), whereas minimizers are licensed by AA but not simple DE, (2b). Weak NPIs are licensed under both AA and simple DE operators, (2c), e.g., van der Wouden 1997.

(2) a. Nobody/at most five men called someone. (*nobody>some, ✓at most>some)
b. Nobody/*less than five people gave a red cent to the beggar.
c. Nobody/less than five people gave any money to the beggar.

Second, *some*-PPIs and minimizers are subjects to the opposite locality requirements, not affecting weak NPIs, (3), e.g., Szabolcsi 2004; Homer 2011.

(3) a. Mary doesn't have some money/a red cent/any money. (*not>some)
b. John didn't say that Mary had some money/ *a red cent/any money. (✓not>some)

Third, in the infinitival complement of *want*, (anti-)licensing of *some*-PPIs and minimizers, but not weak NPIs, is sensitive to the interpretation of an action as intentional versus accidental (e.g., Szabolcsi 2010; Goncharov 2020). Here, we also have a mirroring pattern: *some*-PPIs are acceptable with accidental, but not intentional actions, whereas minimizers are acceptable with intentional but not accidental actions, (4).

(4) a. I don't want to call someone/eat something. (*not>some)
b. I don't want to offend someone/break something. (✓not>some)
c. I don't want to give a red cent/any money to the beggar.
d. I don't want to win ??a red cent/any money in this lottery.

Motivation for our analysis: additional inferences of *some*-PPIs and nominal minimizers. We connect two intuitions regarding *some*-PPIs and minimizers. The first intuition comes from Strawson (1974), who points out that *some NP* brings in the inference that there is a more precise way of identifying the referent described by NP than the one presented in the utterance. This additional inference of *some* explains why *I was stung by a wasp* or *I was stung by some insect* are good while *#I was stung by some wasp* sounds odd (The oddness comes from the difficulty to find a more precise way of identifying a wasp than its species). The second intuition comes from analyses of minimizers as expressing the minimal property of NP (e.g., Krifka 1995). Thus, the difference between *Mary didn't receive any present* and *Mary didn't receive any present at all* is that the first sentence, unlike the second one, is felicitous in the situation where Mary received some insignificant present (say, a postcard).

Analysis: polarity is derivable from granularity. We assume van Rooij's (2011) system of granularity that is meant to capture human ability to reason and communicate at different levels of contextual precision (see also Hobbs 1985 a.o.). For example, we can think of a road

as a line when we are planning a trip, as a surface when we are driving, and as a volume when we are repairing potholes. Granularity is captured as a *refinement* of a context structure $M = \langle I, C, V \rangle$, where I is a set of individuals, C is a set of contexts, and V are valuation functions. We will also need an equivalence relation $\sim_P$ with respect to some predicate P, which may come out very differently in different context structures. Let us assume a set of context structures $\mathcal{M}$, s.t. for all $M, M' \in \mathcal{M}$, $I_M = I_{M'}$, $C_M = C_{M'}$, but $V_M \neq V_{M'}$. We define a refinement relation as follows: M' is a refinement of M with respect to some predicate P only if $\exists x \in I$ s.t. $M \models x \sim_P y$, but $M' \not\models x \sim_P y$ (there is a pair of individuals that is equally P in a more coarse-grained model, but is not equally P in a more fine-grained model). The refinement thus defined has the following property: $V_M(\sim_P) \supseteq V_{M'}(\sim_P)$ (an equivalence class in a more coarse-grained model contains more elements of I than an equivalence class in a more fine-grained model). We use this property to derive the distribution of *some*-PPIs and minimizers in a parallel fashion. In particular, we propose that *some*-PPIs and minimizers are regular indefinites and their truth-conditions are as in (5a) and (6a). Additionally, *some*-PPIs and minimizers have the conditions of use in (5b) and (6b), each a logical negation of the other.

(5) Conditions for *some* P:
   a. $M \models \exists x \in I : P(x) \wedge Q(x)$
   b. there is a more fine-grained w.r.t. P model M' in $\mathcal{M}$, s.t. $M' \models \exists x \in I : P(x) \wedge Q(x)$

(6) Conditions for *a* P_{min} (minimizer):
   a. $M \models \neg\exists x \in I : P(x) \wedge Q(x)$
   b. for all more coarse-grained w.r.t. P models M' in $\mathcal{M}$, $M' \models \neg\exists x \in I : P(x) \wedge Q(x)$

The condition in (5b) accounts for the oddness of *wasp*-sentences by requiring the existence of a more fine-grained (w.r.t. wasp identification) talk where *I was stung by a wasp* is true. The condition in (5b) also accounts for the positive polarity property of *some*, since the negated truth-conditions (i.e., $M \models \neg\exists x \in I : P(x) \wedge Q(x)$) contradict (5b) – recall that $V_M(\sim_P) \supseteq V_{M'}(\sim_P)$. Similarly, the condition in (6b) accounts for the minimality inference of nominal minimizers, for there is no talk – however coarse-grained w.r.t. P (even if we include postcards in our contextual understanding of what counts as a present) – where *Mary received a* P_{min} is true. The condition in (6b) accounts for the negative polarity property of minimizers by inducing a contradiction between the positive truth conditions (i.e., $M \models \exists x \in I : P(x) \wedge Q(x)$) and (6b).

Accounting for other (anti-)licensing properties of *some*-PPIs and minimizers. The first and third properties where *some*-PPIs and nominal minimizers show the mirror image behaviour can be explained if we assume Gajewski's (2011) approach to the strong/weak NPI distinction. According to this approach, strong NPIs need to be in DE environment w.r.t. truth-conditions *as well as* non-truth-conditional content, whereas for weak NPIs, it is sufficient that only truth-conditions are DE. Extending this idea to *some*-PPIs, we say that *some*-PPIs are anti-licensed only if both truth-conditions and non-truth-conditional content are DE. Notice that the condition in (5b) is unsatisfiable only in AA contexts or equivalently in contexts where both truth-conditions and non-truth-conditional content are DE. Similarly, the condition in (6b) is satisfiable only in AA contexts. To account for the sensitivity of *some*-PPIs and nominal minimizers to the interpretation of an action as intentional versus accidental, we follow Goncharov (2020), who argues that the accidental interpretation comes with a presupposition, which in case of PPIs acts as a rescuer and in case of minimizers as an intervener.

Discussion. The analysis proposed here achieves three goals: i) it captures the parallelism between *some*-PPIs and nominal minimizers, setting them aside from weak NPIs; ii) it accounts for polarity properties of *some*-PPIs and minimizers; and iii) by the same mechanism, it explains the additional inferences found with *some*-PPIs (the presence of a more specific way of identification) and minimizers (the minimality inference). We discuss how our analysis provides a way to reconcile exhaustification-based accounts of polarity sensitivity (e.g., Chierchia 2013) and referential accounts (e.g., Giannakidou 2011).

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