Self as a minimal disposition

Discussions of the meaning of *self* began in antiquity and continue to this day. In contemporary linguistics, the mainstream view holds that the meaning of *self* is trivial – it denotes either an identity function or an identity relation. In this paper, we propose an alternative to the mainstream view, according to which *self* expresses a minimal disposition of an entity. This view goes back to Aristotle, who defines key aspects of the soul in terms of powers (*De Anima*, Aristotle 1941). Our focus here is on *self*-intensifiers.

Background. *Self*-intensifiers are usually divided into three groups according to their interpretation: (a) additive, which convey that there is another individual who participated in the same type of event, as in (1)a; (b) substitutional, which can be paraphrased using *instead of*, as in (1)b; and (c) autonomous, which express that the agent performed the action without help, as in (1)c (Browning 1993; Siemund 2000; Hole 2002, a.o.).

(1) a. Don't tell me how difficult it is to learn German. I have learned it myself.   (additive)
  b. I wanted my wife to learn German and help me, but in the end I learned it myself. (substitutional)
  c. Nobody has taught me German. I have learned it myself.   (autonomous)

The most influential semantic analysis of *self*-intensifiers was proposed by Eckardt (2001). According to this analysis, *self* denotes a lifted identity function, as in (2)a, and activates focus alternatives to the identity function, as in (2)b (Rooth 1992). These focus alternatives are incorporated into the meaning of the sentence by the emphatic assert operator, which adds the presupposition that the ordinary sentence is less likely than its focus alternatives, as in (2)c (Krifka 1995). In this system, the sentence *I have learned German myself* asserts that the speaker has learned German (see (2)d) and presupposes that this event is contextually less likely than the event of any other relevant individual learning German (see (2)e).

(2) a. $[\![\text{self}_F]\!]^o = \text{Lift(ID)} = \lambda Q_{e,et}\lambda y\lambda x.Q(\text{ID}(x), y)$, where ID: $D_e \to D_e$
  b. $[\![\text{self}_F]\!]^f = \{ \text{Lift}(f) \mid f$ is a contextually salient alternative to ID $\}$
  c. EmphAssert $([\![S]\!]^o, [\![S]\!]^f)$ in context c
    Assertion: $[\![S]\!]^o$
    Presupposition: $\forall p \in [\![S]\!]^f \neq [\![S]\!]^o : [\![S]\!]^o <_c p$, where $p <_c q$ iff p is less likely than q in c
  d. Assertion: $[\![$ I learned German myself$_F]\!]^o = \text{learn(the speaker, german)}$
  e. Presupposition: $\forall p \in [\![$ I learned German myself$_F]\!]^f \neq [(2d)] : [(2d)] <_c p$

For Eckardt, the different meanings of (1)a and (1)b arise from the choice of alternatives of *self*, which in turn are determined by context and world knowledge. The additive meaning in (1)a arises when the alternatives specify who else performed the action, while the substitutional meaning in (1)b arises when the alternatives specify who carried out the action instead of the agent. Sentences with the autonomous meaning, as in (1)c, involve *self* with a separate denotation, which conveys that no individual aided the agent, i.e., $[\![\text{self}_{\text{autonomous}}]\!] = \lambda e.\neg\exists x[\text{ASSIST}(x, e)]$. Later accounts have improved on Eckardt's analysis by (i) elaborating on focus placement and syntactic structure (or QUD), and (ii) unifying the autonomous reading with the other two readings.

Problem. Mainstream analyses are well-suited to account for *self*-intensifiers in agentive sentences, in which the associate of *self* is an animate subject performing an intentional action, as in (1). However, they cannot account for the restrictions on the use of *self*-intensifiers with inanimate subjects, particularly with the autonomous interpretation. German examples in (3)b,c show that *self* can contribute the autonomous interpretation with inanimate subjects, but only under certain conditions ((3)a with an animate subject serves as a baseline) (e.g., Hole 2002; Gast 2006).

(3) a. Die Polizisten versperren den Tal-eingang selbst.   (German)
    'the policemen block-up the valley-entrance themselves'   (autonomous)
  b. #Die Berge versperren den Tal-eingang selbst.
    'the mountains block-up the valley-entrance themselves'   (autonomous)
  c. Der Stern wurde nicht von einem schwarzen Loch zerstört, er zerstörte sich selbst.
    'the star was not by a black hole destroyed, it destroyed REFL itself'   (autonomous)

The problem is that mainstream analyses cannot explain the unacceptability of (3)b. There is no difficulty

in generating focus alternatives to the mountains in (3)b: the river, the woods, and so on could also block up the valley entrance. Nor is there any reason why the mountains' blocking up the valley entrance could not be contextually less likely than other alternatives – that is, the presupposition of EmphAssert is satisfiable.

Proposal. To account for the difference between (3)b and (3)c, we propose that *self* denotes a minimal dispositional property of the entity it associates with. The sentence in (3)c is acceptable because the star has a dispositional property to destroy itself, where a dispositional property is, roughly, the intrinsic structure in virtue of which the event can be brought about (see below). In contrast, the sentence in (3)b is unacceptable because blocking up the valley entrance is not a manifestation of the mountains' (minimal) dispositional property. That is, the event is not due to the mountains' internal structure; blocking up the valley entrance can be done by any sufficiently spread object, independently of its internal structure. In other words, *self* can be used only with dispositional event descriptions – which is the case in (3)c, but not in (3)b.

Dispositional properties are usually described using adjectives such as *fragile* and *irascible*. There is a considerable amount of debate concerning dispositions in the philosophical literature (see Choi and Fara 2021 for an overview). For our semantic analysis of *self*, we use components of the standard conditional view, according to which dispositions are intrinsic properties of an object that satisfy the following condition: x is disposed to M when C iff x has an intrinsic property B such that, if it were the case that C, then C and B would jointly cause x to M (e.g., Lewis 1997).

For our analysis, we retain the two main components of Eckardt's approach, namely that *self* introduces focus alternatives, and that these alternatives are incorporated into the meaning of a sentence by means of an emphatic operator, which we assume to be EVEN, defined in (4):

(4) EVEN(p) is defined only if $\forall q \in \text{ALT} : q \neq p \rightarrow p \Rightarrow_{c,s} q$, where '$p \Rightarrow_{c,s} q$' = p asymmetrically contextually Strawson entails q. When defined, EVEN(p) = p.

Unlike in Eckardt's approach, we propose that *self* can only be used with dispositional event descriptions; that is, event descriptions that have the denotation in (5) and convey that the individual x has a disposition d to V that is manifested in the event e (Pross 2019). With such event descriptions, *self* modifies the Voice head that introduces the stimulus condition, asserting that the stimulus condition is minimal; see (6).

(5) $\lambda x \lambda d \lambda e. V(x)(d) \wedge \text{MANIFEST}(e)(d)$ (d = disposition)

(6) $[\![\text{Voice}_{\text{STIMULUS}} \text{ self}_F]\!]$ = $\lambda d \lambda e.\text{STIMULUS}(C_{min})(d)(e)$, where $\text{STIMULUS}(C_{min})(d)(e) = 1$ iff C_{min} is a minimal condition in the presence of which a dispositional property d manifests itself in the event e described by V

The meaning of (3)c is shown in (7), using English glosses and an intransitive structure for simplicity. We propose that (3)c has the LF in (7)a, in which the modified Voice head combines with the dispositional event description. The sentence asserts that the event of the star destroying itself is a manifestation of the star's disposition under a minimal condition; see (7)b. The focus on *self* introduces alternatives to the minimal condition, according to which the destruction of the star could be influenced by other factors, e.g., the gravitational force from a supernova; see (7)c. These alternatives are incorporated into the meaning of the sentence by EVEN, resulting in the presupposition in (7)d. This presupposition captures the autonomous reading that the destruction of the star is caused by its intrinsic property and not influenced by other factors.

(7)   a. [EVEN [[Voice$_{\text{STIMULUS}}$ self$_F$] the star destroyed **refl**]]
         b. Assertion: $\exists d \exists e : \text{destroy-refl}(\text{star})(d) \wedge \text{MANIFEST}(e)(d) \wedge \text{STIMULUS}(C_{min})(d)(e)$
         c. ALT: $\{ \exists d \exists e : \text{destroy-refl}(\text{star})(d) \wedge \text{MANIFEST}(e)(d) \wedge \text{STIMULUS}(C')(d)(e) \mid C_{min} \subset C' \}$
         d. Presupposition: $\forall p \in \text{ALT} : p \neq [(9)\text{b}] \rightarrow [(9)\text{b}] \Rightarrow_{c,s} p$

We explain (3)a by saying that *self* modifies the agentive Voice head – Voice$_{\text{AGENT}}$ – which also has a dispositional component (Shepherd 2021). The example (3)b is unacceptable because the event description here is not dispositional, and the Voice head it combines with does not have a dispositional component that *self* could modify. The other readings of *self* in (1) are accounted for by using higher-level dispositions: a disposition to bring about the result of an action for the substitutional reading in (1)b, and a speech act disposition for the additive reading in (1)a.

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