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# SELF: Intensifier and ‘long distance’ effects in ASL

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ABSTRACT: I argue that the apparent long distance anaphors (LDA) in ASL is just that—apparent, and that anaphors are strictly local. I claim that the apparent LDA effect arises because the lexical item *SELF* is homophonous between a true local anaphor (*himself*) and an intensifier. Since ASL is a *pro*-drop language, the intensifier *SELF* can combine with *pro*, yielding [*pro* + *SELF*], which, for all purposes, looks like the local anaphor. That the account of the reflexive along the lines of [*pro* + intensifier] is plausible is supported by a) the theory of intensifiers (Eckardt 2002); b) the theory of ASL pronouns (Lillo-Martin & Klima 1990); and c) the theory of the null arguments in ASL (Lillo-Martin 1986). The account also independently captures the otherwise “ill-behaved” “anaphoric” constructions in other *pro*-drop languages, such as Japanese and Chinese.

## 1 Introduction: LDA in ASL

Consider the excerpt from Lillo-Martin (1995, 2006): “ASL seems to allow a reflexive pronoun, as well as non-reflexive pronoun, in embedded subject position to be co-referential with any NP in a matrix clause”:

- (1) LOWEL<sub>*i*</sub> FEEL SELF<sub>*i*</sub> / PRONOUN<sub>*i*</sub> INTELLIGENT  
 Lowel think that he/self is intelligent (Lillo-Martin 1995)

What (1) shows is that the distribution of *SELF* vs. the pronoun in ASL seems to contradict the usual complementarity between anaphors and pronouns (Binding Conditions A-B, Chomsky 1981). The question arises: why should this be so? One option considered by Lillo-Martin (although no analysis is provided) is that (1) reveals the existence of long-distance anaphora in the subject position.

Anaphoric expressions in languages generally come in three varieties: pronominals, simplex anaphors (SE-type) and complex anaphors (SELF-type). Without delving deeply into the typological cross-linguistic differences, suffice it to say that SELF-anaphors are always local (e.g. English *himself*) and SE anaphors are often long-distance (Icelandic *sig*, Chinese *ziji*):

- (2) a. Harald<sub>*i*</sub> segir að Jón komi ekki nema María kyssi sig<sub>*i*</sub>  
*Harald* says that Jon comes not unless Mary kisses self<sub>*i*</sub>  
 Harald<sub>*i*</sub> says that Jon will not come unless Mary kisses him<sub>*i*</sub> (Icelandic; Hellan 1991)
- b. Zhangsan<sub>*i*</sub> renwei Lisi<sub>*j*</sub> hai-le ziji<sub>*ij*</sub>  
*Zhangsan* think Lisi hurt-ASP self

Zhangsan<sub>i</sub> thought that Lisi<sub>j</sub> hurt himself<sub>i,j</sub>.

(Chinese; C.-T. J. Huang & Tang 1991)

At this juncture, we might be led to believe, with Lillo-Martin, that *SELF* in (1) is an instance of a long-distance SE anaphor, say of Scandinavian or Chinese type. That is, ASL *SELF* is not locally bound, and, thus, cannot be treated as English *himself*, for instance.

There are reasons to reject this hypothesis, however: cross-linguistic differences on the distribution of LDA are well documented; nonetheless, all of them share one common characteristic—subject orientation:

- (3) Wangwu<sub>i</sub> shuo Zhangsan<sub>j</sub> zengsong gei Lisi<sub>k</sub> yipian guanyu ziji<sub>i,j,\*k</sub> de wenzang.  
*Wangwu says Zhangsan give to Lisi one about self DE article*  
 Wangwu<sub>i</sub> says that Zhangsan<sub>j</sub> gave an article about him/himself to Lisi<sub>k</sub>.  
 (Chinese; Cole et al. 2006)<sup>1</sup>

Regardless of how one chooses to derive the phenomenon, it simply is not relevant for ASL: the antecedent of *SELF* in (4) is the object of the matrix clause—a behavior unattested with long-distance reflexives:

- (4) SENATE<sub>i</sub> PERSUADE WORKER<sub>j</sub> SELF<sub>i,j</sub> WILL PAY TAX HIGH  
 Senate persuaded the worker that it<sub>i</sub>/he<sub>j</sub> will pay high taxes.  
 (adapted from Lillo-Martin 1995)

Moreover, long-distance binding of *SELF* in ASL is disallowed in the object position, even when there is no Blocking Effect (Y.-H. Huang 1984, Tang 1989) —something that other LDA have no problems achieving:

- (5) Zhangsan<sub>i</sub> zhidao Lisi<sub>j</sub> renwei Wangwu<sub>k</sub> zui xihuan ziji<sub>i,j,k</sub>.  
*Zhangsan know Lisi think Wangwu most like self*  
 Zhangsan<sub>i</sub> knows that Lisi<sub>j</sub> thinks that Wangwu<sub>k</sub> likes himself<sub>k</sub>/him<sub>i,j</sub> the most.  
 (Cole et al. 2006)
- (6) MARY<sub>i</sub> THINK JOHN<sub>j</sub> KNOW PEDRO<sub>k</sub> LIKE SELF<sub>\*i,\*j,k</sub>.  
 Mary<sub>i</sub> thinks that John<sub>j</sub> knows that Pedro<sub>k</sub> likes himself<sub>\*i,\*j,k</sub>.

In principle, one could claim a new kind of LDA for ASL, but, obviously, such an approach would be undesirable. Instead, I will argue that ASL *SELF* fits well into the standard classifications of anaphoric elements. I argue that the apparent long distance behavior of the reflexive can be accounted for by treating *SELF* as being ambiguous between a true, *himself*-type, local anaphor and a complex element, namely [*pro* + *SELF*]<sup>2</sup> where *SELF* is an intensifier (in the sense of Eckardt 2002) modifying a pronoun. Hence, the latter will be pronominal, rather than anaphoric, element. A few predictions immediately arise:

- a) complementary distribution of a pronoun and *SELF* (Binding Conditions A and B (Chomsky 1981)) is not expected;
- b) the reference of [*pro* + *SELF*] should not be restricted to subject antecedents;

<sup>1</sup> Exceptions to subject orientation have been noted in literature: see Xu 1994 and Yu 1996; however, the non-subject orientation of such cases are argued by the authors to be outside the domain of Binding Theory, i.e. they are logophoric (Chao & Yu 1997).

<sup>2</sup> Mathur (1996) proposes [*pro* + *SELF*] as well; however, his analysis does not involve an adnominal intensifier. Rather, he analyzes *SELF* as a presuppositionality marker.

- c) the “LDA” *SELF* will be possible only in context that allow a *pro* and impossible otherwise;
- d) there will always be a semantic difference (to the degree that adjoining the intensifier to an X makes a difference) between two otherwise identical sentences—one with and the other without *SELF*;
- e) in positions in which (a particular meaning of) the intensifier is disallowed, the “LDA” *SELF* will be disallowed as well;
- f) ASL-type “LDA” *SELF* is expected to occur in other *pro*-drop languages that also have an intensifier that can combine with a pronominal.

I shall now proceed to, first, spelling out the theory of intensifiers that, I claim, captures the data, and, second, addressing the aforementioned predictions.

## 2 Contribution of the intensifier

At this point, I shall spell out the theory of intensifiers that, I claim, captures the facts under examination, as well as the implications of such a theory.

In short, Eckardt (2002), following Moravcsik (1972), claims that intensifiers like the German *selbst* denote an identity function from the domain of individuals to itself:

- (7) a. Let  $f$  be a function on  $D_e$ . Then  $\text{Lift}_1(f) := f: D_{((e, t), t)} \rightarrow D_{((e, t), t)}$  is defined as follows:  
If  $Q \in D_{((e, t), t)}$  is a principal ultrafilter, i.e. of the form  $Q = \lambda P(P(a))$  for some  $a \in D_e$ , then  $f(Q) := \lambda P(P(f(a)))$ . Else,  $f$  is undefined. (Eckardt 2002 [3.3])
- b.  $[[ [\text{Otto}]_{\text{EN}} \text{selbst}]] = \text{ID} ([[ \text{Otto} ]]) = [[ \text{Otto} ]]$  (Ibid. [3.2])

That is, the intensifier by itself contributes no truth-conditional meaning to the sentence. It will, however, become meaningful exactly when it is in focus (the definitions are provided in (8a-b) and exemplified in (8c)):

- (8) a.  $[[ \text{selbst} ]]_f = \{ \text{Lift}_n(f) \mid f \text{ is a contextually salient alternative to ID} \}$  for appropriate lift  $\text{Lift}_1$ – $\text{Lift}_4$ . (Ibid. [3.6])
- b. Let  $a$  be the referent of the NP linked to *selbst* and let  $\{f_1, f_2, f_3, \dots, f_k\}$  be salient alternatives to ID in the given context.  $\text{Alt}^*(a) = \{f_1(a), f_2(a), f_3(a), \dots, f_k(a)\}$  will be called the induced set of alternatives to  $a$  in  $D_e$ . (Ibid. [3.7])
- c. Nur der König SELBST warf einen Groschen in die BÜchse.  
only the king himself threw a coin into the box  
Only the king himself threw a coin into the box.

- i.  $[[ \text{selbst}_f ]]^f = \{ g \mid g \text{ maps king onto person in king's periphery} \}$
- ii.  $[[ \text{der König selbst}_f ]]^o = \text{king}$
- iii.  $[[ \text{der König selbst}_f ]]^f = \{ x \mid x = g(\text{king}) \text{ for some } g \in [[ \text{selbst}_f ]]^f \}$
- iv.  $[[ \text{der König selbst}_f \text{ warf einen Groschen in die BÜchse} ]]^o = \exists y \exists z (\text{Coin}(y) \ \& \ z = \text{box} \ \& \ \text{Throw-in}(\text{king}, y, z))$
- v.  $[[ \text{der König selbst}_f \text{ warf einen Groschen in die BÜchse} ]]^f$

=  $\exists y \exists z (\text{Coin}(y) \ \& \ z = \text{box} \ \& \ \text{Throw-in}(g \ (\mathbf{king}), y, z) \mid g \in [[\text{selbst}_t]]^f \}$

vi.  $[[\text{nur der König selbst}_t \text{ warf einen Groschen in die Büchse}]]^0$

Assertion:

$\forall p (p \in [[\text{der König selbst}_t \text{ warf einen Groschen in die Büchse}]]^f \ \& \ p \neq [[\text{der König selbst}_t \text{ warf einen Groschen in die Büchse}]]^0 \rightarrow \neg p)$

Presupposition:

$[[\text{der König selbst}_t \text{ warf einen Groschen in die Büchse}]]^0$   
 =  $\exists y \exists z (\text{Coin}(y) \ \& \ z = \text{box} \ \& \ \text{Throw-in}(\text{king}, y, z))$

vii. Paraphrase of (vi):

Nobody in the periphery of the king threw a coin into the box.

Presupposed: The king did throw a coin into the box. (Ibid. [3.13-3.13’])

A few consequences fall out from the semantics argued for by Eckardt: a) the definition in (7a) predicts exactly what the intensifier can combine with—adnominal intensifiers must modify definite expressions (the theory extends to specific indefinites); and b) how, precisely, the set of salient alternatives to the referent in a given context arises (see (8b)). That is, when the intensifier is in focus, traditional focus semantics (Rooth 1985) provides the previously noticed multitude of readings “contributed” by the intensifier: bringing the individual from the periphery to the center, the (lack of) surprise, additive vs. exclusive reading, etc.

### 3 Arguments for the intensifier analysis

#### 3.1 Non-complementarity with pronouns and lack of subject orientation

First and foremost, if the long-distance *SELF* is an intensifier and not an anaphor, we have no reason to expect either subject-orientation (cf. (4)) or complementarity with pronouns (cf. (1))—both are pronominal, and, all things being equal, both should be able to occur in the same context. The examples in the original (1) as well as (9) show this to be correct:

(1)  $\text{LOWEL}_i \text{ FEEL } \text{SELF}_i / \text{PRONOUN}_i \text{ INTELLIGENT}$   
 Lowel think that he/self is intelligent (Lillo-Martin 1995)

(9) a.  $\text{WORKER}_i \text{ POSS}_i \text{ BOSS}_j \text{ TEACH MUST THINK } [pro + \text{SELF}_{i,j}] / \text{PRONOUN}_{i,j}$

IMPORTANT

The boss<sub>j</sub> teaches the worker<sub>i</sub> to think that self<sub>i,j</sub>/he<sub>i,j</sub> is important

b.  $\text{JOHN}_i \text{ HEAR MARY}_j \text{ DECIDE } [pro + \text{SELF}_j] / \text{PRONOUN}_j \text{ WILL COME}$   
 John heard that Mary decided that she will come<sup>3</sup>

<sup>3</sup> An obvious question arises with the *i*-reference here—namely whether *SELF* can refer to JOHN. The answer, which is not predicted at first, is “no”. However, the analysis I propose solves the problem appealing to an independently argued for phenomenon, also referred to later as a “one-clause up” condition.

In contrast to the intensifier *SELF*, true local anaphor exhibits the familiar complementarity with pronouns in ASL. This is shown in (10) which involves a true reflexive predicate, and, as expected, the pronoun is excluded.

- (10) MARY IX NOT LIKE CRITICIZE SELF / \* PRONOUN  
Mary doesn't want to criticize herself

The non-complementarity between the *SELF* element and the pronoun in, say, (9), in contrast to (10) provides strong initial support for an intensifier analysis as suggested. Furthermore, the distribution of *SELF* in (9) follows bears the characteristics of intensifiers as argued for by Eckardt (2002), i.e. *SELF* obligatorily receives stress and induces an interpretation involving a set of alternatives to the individual (*pro*, in this case) it is adjoined to. This is precisely what we obtain: according to my informants, the only difference between the reflexive and the pronoun in all the “LDA” sentences above is a “strong sense of autonomy or centrality”—namely, “self rather than the other,” which is lacking in the case of pronouns. Moreover, in all the instances with preverbal “long-distance” *SELF*, the reflexive itself is accompanied by classical markers of stress in signed languages—a lean forward and pressing of lips (Wilbur 1996).

Lastly, the analysis I am pursuing here immediately explains another puzzle, namely why *SELF* can appear in contexts which otherwise only allow relative pronouns:

- (11) FUNNY WHAT IX MAN SELFG HUNTER IX REALLY WANT THAT BEAR FOR HIMSELF  
It was funny how this man, who [**himself**] was a hunter, wanted the bear for himself.  
(Fischer & Johnson 1982)
- (12) ME LOOK-FOR *e SELF<sub>i</sub>* WORK HARD, NEXT-ON-LIST *SELF<sub>i</sub>* SOCIAL WORK  
I am looking for someone who [**himself/herself**] works hard, possibly a social work
- MAJOR POSSIBLE, THAT MORE *i<sub>j</sub>* SAME JOIN RESEARCH  
major, more of this type of things, so that we could do some research together.  
(Fischer 1987)

In the sentences above, *SELF* is adjoined to the trace of a silent relative pronoun, which is type <e> (Heim & Kratzer 1997).

In sum, the facts presented in this section support the claim that preverbal *SELF* is not anaphoric<sup>4</sup>; rather, it is a pronominal construction with an intensifier adjoined—of the form [*pro* + *SELF*].

### 3.2 The “LDA” *SELF* is possible only in context that allow *pro* and impossible otherwise.

Lillo-Martin (1986, 1989), with much subsequent literature following the analysis, shows that ASL has two types of null arguments: a) the Italian-type *pro*, licensed by verbal agreement (for the class of verbs that exhibit agreement), and b) the Chinese-type null topic licensed by

<sup>4</sup> Also independently noted in Mathur (1996)

discourse. Such an angle allows for a [*pro* + intensifier] construction where only the *SELF* is overt (that is, *SELF* will not require an overt “associate”). However, the construction should be restricted to *pro*-environments. The prediction that falls out of the argumentation above is that in the contexts where *pro* is impossible, we should also not find [*pro* + *SELF*]. Let me clarify: ASL is a *pro*-drop language, but since not all verbs allow the recoverable-by-agreement *pro*, in the class of verbs disallowing agreement, only discourse *pro* (with or without *SELF*) should be possible. If we claim that the “LDA” *SELF* is, in fact, [*pro* + *SELF*], then the intensifier associated with different types of *pro* ought to show the difference.

At this juncture, the question arises as to how we could show the difference between the two kinds of *pro*. Here, extending the theory offered by Lillo-Martin & Klima (1990), I suggest that the discourse-bound [*pro topic* + *SELF*] will be identified by having obligatory locus on *SELF*, while the agreement-identified *pro subject* will allow its intensifier to appear in neutral space. In (13), a plain verb is used (no agreement-identified *pro*), and, thus, only the discourse *pro* is expected. This, in turn, translates into an obligatory locus (a.k.a. impossibility of *SELF* in a neutral location).

(13) Non-agreeing: SICK

- \_\_\_\_\_ q/t \_\_\_\_\_
- a. (YOU KNOW) JEFF<sub>i</sub> e<sub>i</sub> SICK  
Do you know Jeff? He is sick.
- \_\_\_\_\_ q/t \_\_\_\_\_
- b. DH: (YOU KNOW) JEFF<sub>i</sub> \*neu-SELF<sub>i</sub>/ SELF<sub>i</sub> SICK  
NDH: a-CL1<sup>5</sup>  
Do you know Jeff? He himself is sick.”

In (14)-(15), however, agreeing verbs, which allow for both types of *pro*, are used. In that case we expect a possibility of *SELF* being signed in a neutral location:

(14) Agreeing (for locus): COME

- a. JOHN<sub>i</sub> a-IX THINK a-SELF<sub>i</sub>/e<sub>i</sub> a-COME-b  
b. JOHN<sub>i</sub> a-IX THINK neu-SELF<sub>i</sub>/e<sub>i</sub> a-COME-b  
John thinks he himself will come.

(15) Agreeing for (person): ASK

- a. JOHN<sub>i</sub> a-IX THINK a-SELF<sub>i</sub>/e<sub>i</sub> a-ASK-b  
b. JOHN<sub>i</sub> a-IX THINK neu-SELF<sub>i</sub>/e<sub>i</sub> a-ASK-b  
John thinks he himself will come.

Thus, the distribution of *SELF* appears to be tracking the distribution of *pro*<sup>6</sup>.

<sup>5</sup> The sentence is grammatical without the classifier only if the locus for the NP is established previously by a point; this provides further support for my account:

\_\_\_\_\_ q/t \_\_\_\_\_

(13) c. (YOU KNOW JEFF<sub>i</sub> a-IX) \*neu-SELF<sub>i</sub>/a-SELF<sub>i</sub> SICK

<sup>6</sup> An important consequence falls out of the argumentation above: having suggested that the agreement will “show itself” on the [*pro* + *SELF*], I have opened the door to the possibility first argued for by Fischer

### 3.3 If an intensifier is disallowed, so is the “LDA” *SELF*

Notice that prior to this point, I have been discussing (and making claims about) the preverbal *SELF*—*SELF* in the subject position. One interesting question that I have not raised thus far concerns the post-verbal *SELF*. In principle, following the logic spelled out above, one might expect that *SELF* in (16) should be ambiguous between a locally bound anaphor (*j*-index) and a “LD” intensifier (*i*-index). However, this is not the case—*SELF* can only be a local anaphor in these contexts; it cannot be interpreted as an intensifier modifying *pro* associated with the higher subject.

- (16) LOWEL<sub>*i*</sub> WANT WORKER<sub>*j*</sub> RESPECT SELF<sub>*\*i,j*</sub>  
 Lowel<sub>*i*</sub> wants the worker<sub>*j*</sub> to respect *\*[him himself]<sub>*i*</sub> / himself<sub>*j*</sub>.  
 (Lillo-Martin 1995)*

- (17) ANDRE<sub>*i*</sub> THINK JOHN<sub>*j*</sub> KNOW PEDRO<sub>*k*</sub> LIKE SELF<sub>*\*ii,\*j,k*</sub>.  
 Andre<sub>*i*</sub> thinks that John<sub>*j*</sub> knows that Pedro<sub>*k*</sub> likes himself<sub>*\*i,\*j,k*</sub>.  
 \*Andre<sub>*i*</sub> thinks that John<sub>*j*</sub> knows that Pedro<sub>*k*</sub> likes him<sub>*i,j,\*k*</sub> / himself<sub>*k*</sub>.

One important for our analysis characteristic of the sentence above is that it reveals the true locality effect: the bound-within-one-clause nature of *SELF* in the object position, which can easily be translated into “bound in its governing category” (or whatever other mechanism derives Condition A vs. B in post-GB frameworks). That is, if *SELF* is ambiguous between the [*pro* + intensifier] and complex anaphor, there appears to be a competition for the object position—the competition which the anaphor wins. An alternative way of capturing the effect is that the intensifier (adjoined to a *pro*(nominal)) is banned from the object position. In the remainder of this section I will explore both possibilities and conclude that the former, rather than the latter, holds.

First, the restriction on the intensifier adjoined to a *pro*(nominal) in the object position — at least on the surface—seems to be cross-linguistic in nature as (18)-(20) show:

- (18) The woman<sub>*i*</sub> took care of the girl<sub>*j*</sub> herself<sub>*i,j*</sub> / her<sub>*j*</sub> herself<sub>*i,\*j*</sub>.
- (19) Hanako-ga kanojo zisin-ni kiusita. [Japanese]  
 Hanako-NOM her self-DAT kissed.  
 Hanako kissed her self.  
 i. <sup>V</sup>act of self-kissing  
 ii. *\*{not her sister, not her aunt, not her boyfriend}*
- (20) Aileli kanjian ziji / [ta ziji].  
 Ellery see self/ he self  
 Ellery saw himself.  
 i. <sup>V</sup>act of self-seeing  
 ii. *\*{not his boss, not his colleagues, etc.}* [Chinese] (Kuo 2006)

On the other hand, certain languages allow an intensifier modifying a pronominal in such an environment.

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(1975), Kegl (1987), and more recently by Nevins (2009)—that the ASL “agreement marker” is actually a pronominal clitic. I shall leave this possibility for future research, however.

- (21) a. Vanya sovral chto Petya<sub>i</sub> sebya<sub>i</sub> udalil/udarilsja<sub>i</sub> [Russian]  
*Vanya lied that Peter himself hit*  
 Vanya lied that Peter<sub>i</sub> hit himself<sub>i</sub>
- b. Vanya<sub>i</sub> sovral chto ego<sub>i</sub> samogo<sub>i</sub> kto-to udaril.  
*Vanya lied that him himself somebody hit*  
 Vanya<sub>i</sub> lied that that somebody hit him<sub>i</sub> himself<sub>i</sub>

So, the generalization that seems to emerge here is that the intensifier adjoined to a pro(nominal) object is allowed only if the lexical item for the intensifier is different from that of the reflexive (e.g. (18)-(20)). However, if the intensifier is homophonous with (parts of) the reflexive (e.g. (21)), the [pro(nominal) + intensifier] configuration is disallowed. This leads to the conclusion that there is nothing, in principle, wrong with the intensifier in the object position; problems arise if two homophonous elements will compete for the same spot. This is the case of the ASL *SELF*, and, thus, the “LDA” *SELF* is disallowed in the object position (in favor of the local anaphor) as common in languages whose (co-argument) reflexive lexical item is homophonous with that of the intensifier. This, once again, points to the lack of LDA characteristics of *SELF* as well as to its intensifier-like behavior.

### 3.4 Semantic differences

Eckardt (2002) maintains that different readings commonly associated with *selbst*<sub>ID</sub> arise because of focus semantics. There is one reading, however, that focus semantics does not capture: the assistive/ “do-it-yourself” reading.

- (22) He himself made the cake.  
 i. He, and not his wife, made the cake = intensifier reading  
 ii. He, without any help from anyone, made the cake = assistive reading

Eckardt argues that the relation between the referent and *selbst* in (22)ii. is lacking all together; rather, the assistive reading in arises from the ASSIST relation between the person and the event in which s/he is (not) the driving agent but assists the agent in performing the task—i.e. “the human pendant to the well-known INSTRUMENT role.”

- (23)  $[[selbst_{assistive}]] = \lambda e \neg \exists x (ASSIST(x, e))$  (Eckardt 2002 [4.30])

In fact, in many languages the two readings are represented by lexical items which are not homophonous (cf. Gast & Siemund 2006 for cross-linguistic data and, particularly, deClerk & van der Kooj 2005 for NGT). Along this line of argumentation, consider the following:

- (24) a. JOHN SELF MAKE PIE  
 i. John himself (and not his room-mate) made the pie  
 ii. John made the pie by himself (without anyone’s assistance)
- b. JOHN FEEL [IX SELF FINISH MEET BILL]  
 i. John thinks he himself (and not his secretary) met Bill  
 ii. John thinks that he met Bill by himself (without assistance) (Mathur 1996)



In other words in (24) *SELF* is ambiguous between an intensifier and an assistive reading, on a par with *selbst* in (25)ii.:

- (25) Maria hat die Aufgabe SELBST gelöst.  
*Maria has the problem self solved*  
 i. Maria solved the problem itself  
 ii. Maria solved the problem by herself. (Eckardt 2002 [4.27])

In ASL, however, the assistive interpretation available in (24) evaporates if the *SELF* is added to a null pronominal:

- (26) JOHN FEEL [*pro SELF FINISH MEET BILL*]  
 i. John thinks he (and not his brother) met Bill  
 ii. \* John thinks he met his brother by himself

This suggests that [*pro + SELF*] is restricted only to the intensifier environments, i.e. [[*SELF*]]<sub>ID</sub>, while [overt (pro)nominal + *SELF*] is actually ambiguous between ID and ASSIST. Although I will not offer an account of this distinction, the ASL data remain consistent with Eckardt's analysis of the difference between the two meanings of *selbst*.

Let us return to an example in which both a pronoun and a [*pro + SELF*] are possible. The account I am pursuing suggests that these two options should yield a difference in meaning. This is borne out: the point is made by Mathur (1996; p.c.) who shows that “the absence of *SELF* leaves open the possibility of an existential reading (where there is no contrastive reading)...but such a reading clashes with the context that forces a contrastive interpretation”:

- (27) a. PEOPLE / JOHN FEEL IX BECOME HUMAN WILL UNDERSTAND  
 The people/John thinks that he will become human...  
 (IX) SELF KISS PRINCESS  
 if he \*(himself, out of the people just mentioned) kisses the princess.
- b. PEOPLE / JOHN FEEL IX BECOME HUMAN WILL UNDERSTAND  
 The people/John thinks that he will become human...  
 (IX) KISS PRINCESS  
 if he (\*himself, out of the people just mentioned) kisses the princess.  
 (Mathur 1996)

Notice that (27) suggests that regardless of whether *SELF* is added to an overt or covert pronominal, the interpretation remains the same—namely the “presupposition” (in Mathur's 1996 terms) that there are alternatives to the referent available in the context; crucially, such an interpretation disappears without the *SELF*.<sup>7</sup> This provides another piece of evidence for the account of preverbal “LDA” *SELF* as an intensifier.

<sup>7</sup> The (\*) in (27b) is, perhaps, too strong. What, in fact, the judgment records is an availability but non-centrality of such interpretation. That is, consistent with the analysis pursued in this paper, unless IX is adjoined by *SELF* or stressed (i.e. focused), the set of alternatives to the referent expected with focus will not arise.

### 3.5 LDA and “LDA”

Let me provide some long-overdue context for the suggestion that [*e* + SELF] = [*e* + intensifier] is a plausible scenario. On the one hand, in many languages, intensifiers are morphologically related to reflexives. See, for instance (28) and (29):

- (28) a. She hit **herself**.  
 b. She loves the island *itself* (rather than the people or the culture).
- (29) a. Zhangsan<sub>i</sub> zhidao Lisi<sub>j</sub> renwei Wangwu<sub>k</sub> zui xihuan *ziji*<sub>i/j/k</sub>.  
*Zhangsan know Lisi think Wangwu most like self*  
 Zhangsan<sub>i</sub> knows that Lisi<sub>j</sub> thinks that Wangwu<sub>k</sub> likes himself<sub>k</sub>/him<sub>i/j</sub> the most.  
 [Chinese](Cole et al. 2006)
- b. bùzhang *ziji* huì lái huanyíng wǒmen  
*minister INT will come welcome us*  
 The minister himself will welcome us. [Chinese](Gast & König 2004)

In some languages, the distinction between the intensifier and the anaphor is difficult to see on the surface since there is only one form of each. However, other languages illustrate the point. Here again, Japanese—a language that allows null elements and has a rich inventory of anaphoric expressions—provides a clear illustration.

Japanese has three different types of anaphor: *zibun*, *zibun-zisin*, and *kare-zisin*. *Zibun* is subject oriented and can be bounded non-locally (examples in (30)-(33) adapted from Katada 1991, cited in Richards 1996):

- (30) Daremo<sub>i</sub> -ga [John-ga zibun<sub>i</sub>-o semeta to] itta.  
*Everyone-NOM John-NOM self-ACC blamed that said*  
 Everyone<sub>i</sub> said that John blamed him<sub>i</sub>.

*Zibun-zisin* is also subject-oriented but must be bound locally:

- (31) John<sub>i</sub>-ga [Bill<sub>j</sub>-ga Mike<sub>k</sub>-ni zibun-zisin<sub>\*i,j,\*k</sub>-no koto -o hanasita to] itta.  
*John-NOM Bill-NOM Mike-DAT self- GEN matter-ACC told that said*  
 John<sub>i</sub> said that Bill<sub>j</sub> told Mike<sub>k</sub> about himself<sub>\*i,j,\*k</sub>.

And *kare-zisin* also must be bound locally but can be bound by non-subjects:

- (32) John<sub>i</sub>-ga [Bill<sub>j</sub>-ga Mike<sub>k</sub>-ni kare-zisin<sub>\*i,j,k</sub>-no koto -o hanasita to] itta.  
*John-NOM Bill-NOM Mike-DAT him-self-GEN matter-ACC told that said*  
 John<sub>i</sub> said that Bill<sub>j</sub> told Mike<sub>k</sub> about himself<sub>\*i,j,k</sub>.

Now consider (33):

- (33) Taroo-ga [zibun-/ zibun-zisin-/ kare-zisin-ga soko-no itta to] itta.  
*Taroo- NOM self- NOM there went that said*

Having taken into consideration (30)-(32), and the theoretical explanations thereof, parts of (33) are surprising: assuming that binding into a finite clause is non-local, only the long-distance *zibun* should be allowed in this context. However, (33) is judged grammatical in its entirety.

On the other hand, the possibility of (33) is predicted without any further assumptions if *zisin* in (33) is an intensifier adjoining to the long distance anaphor *zibun* or a true pronoun *kare*. As such, it is expected to obligatorily induce a set of alternatives that arise from the focus semantics (as suggested by Eckardt, see (7)-(8)). This would mean that *kare zisin* in (33) can, at least in principle, but need not, refer to Taroo<sup>8</sup>. *Zibun*, however, must be bound by a subject, namely, Taroo. This is precisely what we obtain: according to my informants, the best translation of relevant parts of (33) is captured in (33').

- (33') Taroo<sub>i</sub>-ga [zibun<sub>i</sub>-zisin- / kare<sub>i</sub>-zisin-ga soko-no itta to] itta.  
Taroo said that he himself (rather than his friends) went there.

Let me add one more piece of evidence that the analysis is on the right track. It is well-known that Japanese, like ASL, has null arguments:

- (34) Taroo-wa Hanako-ni kare-ga / e sono syoku-ni kanozyo-o / e suinsensuru to itta  
*T-TOP H-DAT he-NOM / e that position-to her-ACC / e recommend that said*  
Taroo said to Hanako that he would recommend her for that position

If *zisin* in (33) is actually an intensifier, we ought to be able to re-create exactly the scenario I have proposed for ASL—namely [*e + zisin*]. Crucially, the contribution of *zisin* will be the alternatives to the individual it modifies. In that respect, (35) confirms the prediction:

- (35) Taroo<sub>i</sub>-wa [*e<sub>i</sub>*-zisin-ga soko-no itta to] itta  
*T-TOP self-NOM there went that said*  
Taroo said that he himself (rather than his friends) went there.”

Let me now summarize what I have argued in this section: that in Japanese, on a par with some 94 out of 168 languages reported by König & Siemund (2008), a reflexive can be ambiguous between an anaphoric expression and an adnominal intensifier. Further, if treated as the intensifier, the problem of long-distance binding of otherwise local anaphors in Japanese disappears. Moreover, [*e + intensifier*] scenario, at least in the subject position, creates a surface effect of LDA. That is, Japanese *zisin* works analogously to the ASL reflexive *SELF*, i.e. it contributes to the ambiguity between the local anaphor and the intensifier<sup>9</sup>.

### 3.6 Some extras: “one clause up” condition

In the preceding sections, I have argued that the apparent LDA-bound *SELF* in ASL can be accounted for by analyzing it as an intensifier adjoined to a pronominal, rather than an anaphor. One characteristic of the construction, however, has gone undiscussed: a puzzling property of *SELF* in the subject position—namely that its reference “can go up only one clause” (Lillo-Martin 1995):

- (36) LOWEL<sub>i</sub> THINK WORKER<sub>j</sub> FEEL [*pro*<sub>\*i/j</sub> *SELF*] RIGHT<sup>10</sup>

<sup>8</sup> But see section 3.6 on how far up the reference can go.

<sup>9</sup> Hole (2008) independently applies the intensifier analysis to certain cases of the Mandarin Chinese *ziji*.

<sup>10</sup> Neidle et al. (1997) argue against Lillo-Martin’s (1995) one-clause-up observation citing the following grammatical example with *SELF* referring higher than one clause:

Lowel<sub>i</sub> thinks that the worker<sub>j</sub> feels \*he<sub>i</sub> / he<sub>j</sub> right. (adapted from Lillo-Martin 1995)

At first glance, (36) appears to counter the analysis proposed thus far: if ASL allows free pro-drop, and *SELF* is an intensifier adjoined to *pro*, then [*pro* + *SELF*] in (36) is predicted to be grammatical under ether index. However, once again, the problem is only apparent. In fact, ASL is not unique here either; other languages show the same restrictions.

The one-clause restriction is well-known from the literature on *pro*:

- (37) a. Pekka<sub>i</sub> väittää [että hän<sub>i,j</sub>/*e*<sub>i,\*j</sub> puhuu englantia hyvin]  
 Pekka claims that he speaks English well  
 [Finnish] (Holmberg 2005)
- b. Maria<sub>i</sub> dijo que Susan<sub>j</sub> contó sobre Juanita<sub>k</sub> que ella<sub>i,j,k,m</sub>/*e*<sub>\*i,\*j, k,\*m</sub> estaba enojada  
 Maria said that Susan told about Juanita that she was angry  
 [Spanish]

Furthermore, there is also a cross-linguistic one-clause restriction on intensifiers:

- (38) a. Dori<sub>k</sub> thought that Susan<sub>i</sub> told everyone who knew Mary<sub>j</sub> that she<sub>i,j,k</sub>/ [she herself<sub>i,j,\*k</sub>]  
 was pregnant.  
 b. Dori<sub>k</sub> thinks that Susan<sub>i</sub> says that she<sub>i,k</sub>/ [she herself<sub>i,\*k</sub>] will pass.  
 (adapted from Bickerton 1987<sup>11</sup>)
- (39) Masahiko<sub>i</sub>- wa [Taroo<sub>j</sub>-ga [(kare)-zisin<sub>\*i,\*k,j</sub>-ga soko-ni itta to] itta to] omotteiru  
*M-TOP T-NOM (he)-self -NOM there-DAT went that said that think*  
 Masahiko thinks that Taroo said that he himself went there.  
 [Japanese]

Whatever the ultimate explanation for the following sets of data will be, it will straightforwardly carry over to [*pro* + *SELF*] in ASL, i.e. the mechanism responsible for the ungrammatical interpretations of (37)-(39)<sup>12</sup> with certain indices will derive the one-clause-up condition for the [*pro* + *SELF*] (36). Thus, yet another puzzling characteristic of the “LDA” in ASL has been shown to parallel that of intensifiers.

## 4 Conclusion

- 
- (i) [IX<sub>i</sub> KNOW [IX-1p THINK [ *e*<sub>i</sub> SELF<sub>i</sub> PEA-BRAIN]]] ([58] p.41)  
 “He/she knows I think he/she himself/herself is an idiot”

However, (i) is not equivalent to (36): IX<sub>i</sub> serves as a locus-binder for the *e*<sub>i</sub> in (i), thus exposing the crucial difference between the two examples.

<sup>11</sup> Bickerton (1987) accounts for the ungrammaticality of (38) with some of the indices based on case—arguing that such a construction is only possible with a nominative. However, (21) presents a problem for his account: the [pronoun + intensifier] cluster bears ACC (and is also allowed in any other case).

<sup>12</sup> Note that there are two types of referents to exclude here: a) anything above 1 clause up and b) some other (undefined) referent supplied by discourse. The latter is excluded by the semantics of [[*SELF*]]<sub>D</sub>: if there is no defined individual, the principal ultrafilter cannot be applied. The former is excluded on the grounds of Accessibility Theory (Ariel 1994, 2001), which captures a relationship between an anaphoric expression and the retrievability of the mental entity serving as its antecedent. However, I am presently not committed to the account; any theory that excludes the relevant indices in (37)-(39) will do.

Let me summarize what I have done here. I have offered a rather simple solution to a syntactic puzzle—a “peculiar long distance anaphor”—by appealing to an analysis of the item that is generally considered to be a reflexive as an adnominal intensifier. I was then able to cash out the analysis by showing that the problematic cases in ASL and other languages can still be subsumed by the theory of intensifiers; thus, the analysis covers the “odd” uses of the reflexive without the use of any novel mechanisms. The intensifier approach to certain cases of *SELF* predicts it to be able to combine with definites and specific indefinites, and to induce a set of alternatives to the original referent *SELF* is adjoined to. This implies that the account I am pursuing here captures the previous claims in the literature: that *SELF* acts as a “definiteness marker” (Fischer & Johnson 1982), a “specificity marker” (Wilbur 1996) and a “presuppositionality marker” (Mathur 1996). I argue that all three observations are collateral to the intensifier analysis. Thus, the original theory in Eckardt (2002) predicts the “LDA” distribution of *SELF* in ASL.

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