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Focus on reflexive anaphors

This paper compares three theories for the semantics of reflexive anaphors (*herself*) in English. Based on the distribution of stress in examples like (1) and (2) (from [1]), it is argued that reflexive anaphors should be treated as reflexivizing functions, rather than variables.

(1) A: Lucie praised Oscar.
B1: No, ZELDA praised herSELF.
B2: No, ZELDA praised herself. #

(2) A: Lucie praised herself.
B1: No, ZELDA praised herSELF. #
B2: No, ZELDA praised herself.

Focus theory I assume that stress assignment is read off the distribution of F(ocus)-features on syntactic structures (*focus respresentations*) and that the distribution of F-features is determined by information packaging. I follow [2] in assuming that the only relevant notion is that of *Givenness* in (3), and that competing focus representations are subject to an economy principle. I adopt the economy principle in (4) (based on Heim's (1991) Maximize Presupposition, cf. [3]). (4) simultaneously forces a preference for fewer F-markers and wider focus domains (i.e. the domain of evaluation of Givenness, the clause in all the examples in this paper)(cf. [4]). The stress assignment rules in (5) (cf. [4]) regulate the mapping from focus represenations to accent. To illustrate, consider (6). Stress assignment in B1 and B2 is compatible with the three focus representations in table (7). All are entailed by A's utterance and are, thus, *Given*. Maximize Presupposition, then, favors (7a), since it entails (7b) and (7c).

(3) An Utterance U counts as *Given* iff it has a salient antecedent A and, modulo ∃-type shifting, A entails the Existential F-closure of U.

(4) If α and β are focus representations of an Utterance U that are both Given, and the Existential F-closure of α entails the Existential F-closure of β, pick α.

(5) i. F-marked constituents are stronger than non-F-marked constituents.
ii. Within an F-marked constituent, apply default prosody.

(6) A: Max ordered a soup.
B1: No, OSCAR ordered a soup.
B2: No, OSCAR ordered a SOUP. #

(10) A: Lucie praised Zelda.
B1: No, ZELDA praised herSELF.
B2: No, ZELDA praised herself. #

(7)	**Focus representation**	**Existential F-closure**	**Givenness**	**MaxPres**
a.	$[\text{OSCAR}]_F$ ordered a soup.	*Someone ordered a soup.*	OK	←
b.	$[\text{OSCAR}]_F$ ordered $[\text{a SOUP}]_F$	*Someone ordered something*	OK	
c.	$[\text{OSCAR}]_F$ $[\text{ordered a SOUP}]_F$	*Someone did something*	OK	

The theories *Theory 1 Reflexives as pronouns (e.g. [5])* According to this theory reflexives (like pronouns) are translated into variables that can either be bound or remain free ($[\![\text{himself}_1]\!]^g = [\![\text{him}_1]\!]^g = g(1)$). This ambiguity gives rise to two (relevant) Existential F-closures for B2. As shown in tables (8) and (9) (for (1) and (2), respectively) the theory correctly predicts the stress pattern, at least as long as Maximize Presupposition is calculated at the level of the bound-referential ambiguity. The theory fails, however, with the variant of (1) in (10)(above).

(8)	**Focus representation**	**Existential F-closure**	**Givenness**
a.	$[\text{ZELDA}]_F$ praised $[\text{herSELF}]_F$	*Someone praised someone.*	OK
b.	$[\text{ZELDA}]_F$ praised herself *(ref)*	*Someone praised Zelda*	*
c.	$[\text{ZELDA}]_F$ praised herself *(bound)*	*Someone praised herself*	*

(9)	**Focus representation**	**Existential F-closure**	**Givenness**	**MaxPres**
a.	$[\text{ZELDA}]_F$ praised $[\text{herSELF}]_F$	*Someone praised someone.*	OK	
b.	$[\text{ZELDA}]_F$ praised herself *(ref)*	*Someone praised Zelda*	*	
c.	$[\text{ZELDA}]_F$ praised herself *(bound)*	*Someone praised herself*	OK	←

By allowing the referential construal of the reflexive, Theory 1 predicts the stress pattern in (10B2). This is shown in (11). We need a more restrictive theory, then, that excludes (11b).

(11)	**Focus representation**	**Existential F-closure**	**Givenness**	**MaxPres**
a.	$[\text{ZELDA}]_F$ praised $[\text{herSELF}]_F$	*Someone praised someone.*	OK	
b.	$[\text{ZELDA}]_F$ praised herself *(ref)*	*Someone praised Zelda*	OK	←
c.	$[\text{ZELDA}]_F$ praised herself *(bound)*	*Someone praised herself*	*	

Theory 2 Reflexives as bound variables (e.g. [6]) This is a variant of Theory 1 that poses the syntactic requirement that the variable must end up being bound . The deaccented VP *praised herself* can now only end up meaning *λx. x praised x*. The theory gives the right results for both (1) and (2), as shown in tables (12) and (13), respectively. Since the offending referential construal in (11b) is not available, table (12) also correctly predicts the pattern in (10).

(12)	**Focus representation**	**Existential F-closure**	**Givenness**
a.	$[\text{ZELDA}]_F$ praised $[\text{herSELF}]_F$	*Someone praised someone.*	OK
b.	$[\text{ZELDA}]_F$ praised herself	*Someone praised herself*	*

(13)	**Focus representation**	**Existential F-closure**	**Givenness**	**MaxPres**
a.	$[\text{ZELDA}]_F$ praised $[\text{herSELF}]_F$	*Someone praised someone.*	OK	
b.	$[\text{ZELDA}]_F$ praised herself	*Someone praised herself*	OK	←

Theory 3 Reflexives as reflexivizing functions (e.g. [7]) The empirical success of Theory 2 can also be achieved by a theory that builds the binding requirement in the semantics of the reflexive. Reflexives are reflexivizing functions that take a relation as an argument and return a reflexivized property ($[\![\text{himself}]\!] = \lambda R \lambda x.\ R(x)(x)$). Since the VP *praised herself* again means *λx. x praised x*, the Existential F-Closures we end up with are the same as in (12) and (13). Theories 2 and 3 are so far empirically equivalent. The next section decides between the two. **Prosodic asymmetry** Givenness requires the VP in (14B) to be F-marked and default prosody applies within it. [3] demonstrates that default prosody is sensitive to the semantic distinction between functions and their arguments, as summarized in (17). The stress pattern of (14B) is explained since *ordered* is the functor and *a soup* its argument. I argue that Theory 3 readily explains why stress is different in (15B). If *herself* is the functor and *praise* the argument, (15B) falls under (17b). Theory 2, on the other hand, where *herself* is an argument of type e, wrongly predicts the VP to fall under (17a) and display the same pattern as (14B). One might want to argue that *herself* is subordinated because it is an anaphor, and, thus, necessarily *Given*. It is argued that, even after granting the necessary adjustments that will have to be made to the focus theory adopted here, there is no obvious notion of *Givenness* that can capture both (15B) and (16B).

(14)A:What did Zelda do? B:Zelda [ordered a SOUP]$_F$ (15)A: What did Zelda do? B:Zelda [PRAISED herself]$_F$ (16) A:What did every girl do? B:Every girl [PRAISED herself]$_F$

(17) a. When a functor A precedes its complement B, the functor may be on a par with its argument or may be prosodically subordinated.

b. When a functor A follows the complement B, A is prosodically subordinated.

References [1]Jacobson, P. 2000. Paychecks, stress, and variable-free semantics. In *Proceedings of SALT 10*. Ithaca, NY: Cornell University. [2]Schwarzschild, R. 1999. GIVENness, AvoidF and other constraints on the placement of accent. *Natural Language Semantics* 7:141-177. [3]Wagner, M. 2005. Prosody and recursion. MIT Dissertation. [4]Büring, D. 2008. What's new (and what's given) in the theory of focus? to appear in the Proceedings of BLS 2008. [5]Roelofsen, F. 2008. Anaphora resolved. ILLC Dissertation. [6]Heim, I. and A.Kratzer. 1998. *Semantics in Generative Grammar*. Blackwell. [7]Szabolcsi, A. 1992. Combinatory grammar and projection from the lexicon. In *Lexical matters*, ed. A.Szabolcsi and I.Sag. Stanford: CSLI.