

A bound-variable analysis of the adverbial emphatic reflexive, or How I wrote this paper myself

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1 Introduction

This paper proposes an account of the semantics and pragmatics of adverbial uses of English emphatic reflexives (ERs). The main claim of the paper is that insofar as their purely truth-conditional import is concerned, ERs should be seen as ordinary instances of reflexive pronouns. While ordinary reflexives are arguments of the sentence's main predicate, the ER in adverbial position provides the individual argument to a covert two-place relational predicate, referred to here as *P*. *P* denotes a lack of co-agency in any event where the possibility of a co-agent existed, and is undefined otherwise. This view is argued to be superior to previous approaches to the adverbial ER (cf. Eckardt 2001, Hole 2002, Bergeton 2004, König 1991, König and Siemund 2000) as it paves the way to a fully unified semantics of English reflexive pronouns in all their occurrences. Furthermore, in regards to the pragmatics of adverbial ERs, the paper shows that the assumption of an inherently exclusive hidden predicate allows us to provide a unified view of their “assistive-exclusive” reading and “delegative-exclusive” readings (cf. Eckardt 2001).

In the next section, I will discuss some of the difficulties involved in developing an account for emphatic reflexives. In section 3, I will give details of a proposal to resolve them, and in section 4 I will discuss another prominent interpretation of ERs, related to focus particles, to which my account may ultimately extend.

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2 The problems of emphatic reflexives

It is rather challenging to understand the semantics of emphatic reflexives in general, and their adverbial occurrences in particular. ERs present puzzles for the current view of a variety of modules of the grammar and use of language: lexical semantics of pronouns, the basics of compositional semantics, the semantics and syntax of binding, focus interpretation, presupposition and implicature¹, and the effects of utterance context on interpretation.

To the best of my knowledge, all previous approaches have attempted to address the problems that ERs present to only one of the above-mentioned modules, thus failing to provide a comprehensive understanding of their uses and interpretation. Accounts merely capitalizing on contextual factors and effects (cf. Kemmer 1995, Zribi-Hertz 1989, Cohen 1999) fail to provide an understanding of the issues regarding compositionality, binding, and the lexicon. Those that instead attempt a compositional semantic analysis (cf. Eckardt 2001, Hole 2002) must resort to lexical ambiguities to account for the variety of inferences associated with ERs.

The following subsections separately discuss the challenges ERs present in each of the above-mentioned areas. The focus of the discussion will primarily be on their adverbial occurrences.

2.1 Problem 1: Emphatic reflexives do not seem to be arguments

The first and most evident problem to be addressed is to what degree emphatic uses of reflexives can be reconciled with ordinary reflexive anaphors.

- (1) John washed himself.
- (2) John bought a car HIMSELF.

Himself in (1) functions semantically as the first argument of the predicate *washed*. The reflexive form indicates that the obligatory interpretation is at some level equivalent to John, either through variable binding (traditionally) or predicate reflexivization (cf. Reinhart and Reuland 1993). However, in (2), it does not seem possible to consider *himself* to be an argument, as all of the argument positions of the predicate are already filled. Similar to (1), though, the same “coreference” requirement is present: *himself* must ultimately coincide with John.

There are two main logical options for resolving this state of affairs. Option 1 would posit an ambiguity: reflexives in their emphatic uses have a different denotation than in their ordinary anaphoric uses (cf. Moravcsik 1972, Eckardt 2001). Option 2 maintains that reflexives always have the same denotation, that of a variable over individuals available for binding.

¹For the present account, I will use the term *implicature* without taking a stand on whether the invited inference is better considered to be a conventional implicature or a presupposition.

Option 1 has the advantage of allowing for a straightforward understanding of the differences between emphatic and ordinary anaphoric uses. Emphatics are not semantic arguments, but rather denote identity functions, as originally proposed by Moravcsik (1972) and formalized in Eckardt (2001). The emphatic reflexive (or equivalent intensifier; Eckardt’s study is on German *selbst*) takes its antecedent as an argument and returns its referent.

- (3) a. $[[\text{himself}]] = \text{ID} = \lambda x . x$
 b. $[[\text{John himself}]] = \text{ID}([[\text{John}]]) = \text{John}$

This provides an understanding of the obligatory “anaphoric” connection between John and the emphatic reflexive. The identity function provides a way to create a unified analysis of emphatics across languages like German, Danish, and Dutch, where the emphatic constructions consist of only the “self” part of what is the *himself* in English, without the “pronominal” morphological component.² König and Gast (2004) refer to these as “invariant” cases, since they are not marked for gender or other features. Binding would seem not to be possible for invariant emphatics. However, for English and languages where the emphatic has a pronominal component (“pronominal intensifiers” in König and Gast), it is undesirable to have an ambiguity when binding is available to serve the same purpose. If the parser encounters what looks like an anaphoric pronoun, its first instinct must be to look for a binder. Only in the case of non-pronominal “self” items will it be necessary to look for a referent through some other means.

Option 2 is based on binding, and thus directly accounts for the required anaphoric connection. It has the natural advantage of unified approaches: a single form corresponds to a single meaning. It must still account for the compositionality issue, of course, by explaining how an item denoting an individual can be integrated into a structure when there appears to be no function for which it can be an argument.

An attempt in this direction seems to be outlined in Reinhart and Reuland (1993), which label ERs as “focus logophors”, as distinguished from logophors (or long-distance reflexives) expressing perspective, such as the well-known “picture-of” cases. However, there are cases of logophors where perspective is arguably not a factor. In (4), for example, *over* is considered an independent predicate for which *the carpet* and *itself* are coindexed arguments.

²It has also been said that the identity function serves to explain so-called *centrality effects*. Centrality is the sense that the emphasized NP, whether it is emphasized through *selbst* or emphatic reflexives, is “central” among the set of focus-generated alternatives; for example “the king himself” is central within a government (Eckardt 2001). Since the item denoting the function is focused, its alternatives are other functions which pick out related or salient referents. For example, the alternatives to *himself* in “John himself”, which has the denotation $\text{ID}(\text{John})$, are *Wife-of(John)*, *Friend-of(John)*, *Parent-of(John)*, and so on, with the restrictions that these are “natural” functions and that they can be designed to return only one unique individual. Because John is the argument to all these functions, they (and their referents) are alleged to center around him. This is arguable because both the generation of either related functions or related individuals must be due to their contextual salience. I am therefore not concerned with centrality effects in this paper, and I consider that they cannot be used to independently justify the identity function analysis.

The latter must therefore be expressed as reflexive. Perspective is of greater relevance in (5), where the arguments of *of* are not coindexed, but *herself* is preferred.

(4) Max₁ rolled the carpet₂ over itself₂. (1993:689)

(5) Lucie₁ saw a picture₂ of her₁/herself₁. (1993:661)

Reinhart and Reuland’s choice of terminology points to a common semantics of ERs and logophors. What they do not explicitly address is how the above view on logophors can be extended to solve the compositionality problem that ERs exhibit when they are not introduced by an overt predicate or preposition. The present paper proposes a solution for these cases.

In an attempt to unify the invariant and the pronominal emphatics, Bergeton (2004) provides a third view by arguing that the overt *himself* in English is never a pronoun but always an intensifier of a distinct noun phrase, which can be a proper noun or a pronoun, on a par with stressed *selbst* in German and other languages. Whenever the *himself* seems to contribute to a reflexive construction, the thesis claims that it is an intensifier of a null reflexive pronoun, effectively claiming that the only genuine reflexive pronouns in English are unpronounced. Logophor cases like (6) are therefore actually intensified pronouns, where the pronoun itself is deleted via an independent rule.

(6) The letter was sent to Mary and ~~me~~ myself.

This view shares some advantages of the previously mentioned option in that it removes any ambiguity of “self”. From the semantic point of view, though, this does amount to denying the ER’s status as a bound variable (or predicate reflexivizer). The element that is actually bound in a reflexive construction is null and unpronounced.

The analysis is further supported by historical considerations regarding English reflexivization. I will refrain here from a comprehensive discussion of these considerations, which falls beyond the scope of this paper, as does a broader criticism of Bergeton’s thesis. Although the thesis does take seriously the fact that in English, unlike in German, a component of this form (the *him* in *himself*) is clearly pronominal, it relies on an ambiguity of pronouns. Sometimes *him* is interpreted as a pronoun and sometimes it is not. I believe that the proposal is therefore less than appealing.

2.2 Problem 2: Varying inferences; The semantics and pragmatics of ER

If the syntactic literature is primarily concerned with the relationship between ordinary and emphatic uses of reflexives, the semantic literature on the topic is concerned with another problematic aspect of ERs: utterances involving ERs invite inferences that sentences without them don’t, as an intuitive comparison of (7) and (8) suggests. Additionally, sentences with ERs do not appear to

be fully equivalent to sentences where their correlate NP is focus-marked, as a comparison between (8) and (9) suggests.

- (7) John bought a car. \neq
- (8) John bought a car himself. \neq
- (9) JOHN bought a car.

These inferences exhibit a wide degree of variation, so at times they seem comparable to the inferences introduced by *even* or *also*, at other times similar to contrastive particles like *instead*, and sometimes like none of the above (see discussion in Cohen 1999 and section 4.1 in this paper). This variability has been shown to depend on contextual factors, but also crucially on the syntactic position of the ER.

- (10) John bought a car himself.
- (11) John himself bought a car.

The most prominent interpretation of (10) is exclusive, meaning that nobody helped John to buy a car. (11) lacks this exclusive sense, but may convey the same implicatures of *even*: a scalar implicature, expressing the unlikelihood of John being the one to buy a car, as well as an additive implicature, making it only felicitous in a context where other people have bought cars. In this paper, however, I will focus on the adverbial case in (10). (10) has what looks like an exclusive implicature, reminiscent to the one triggered by *only*, but different in crucial respects (to be illustrated below). What is important is that this second type of implicature appears to be systematically absent in (11).

To further complicate the issue, “exclusivity” appears to come in two distinct flavors, as pointed out in Eckardt (2001): delegative and assistive exclusivity. The delegative case may be thought of as denying the existence of an alternative agent (someone who might have done the action for the antecedent of the ER) while the assistive denies additional participants in the same activity.

- (12) John wrote the letter himself.
Delegative: He did not delegate the letter writing to someone else.
Assistive: Nobody helped him write the letter.

It is clear that a semantic/pragmatic account of the adverbial ER must therefore explain where exclusive inferences come from, as well as relate the assistive vs. delegative interpretations. Although the latter does depend on context to a degree, exclusivity in general appears to be present independently. Given this, I propose that the explanations of these two aspects belong to two different domains: exclusivity is encoded in the semantics while the availability of delegative vs. assistive readings is an entirely pragmatic effect.

Previous accounts differ from mine in that they either view both issues as pragmatic in nature (Cohen 1999) or they view exclusivity as pragmatically

derived and the variability between assistive and delegative readings as an instance of lexical semantic ambiguity (cf. Eckardt 2001 and Bergeton 2004). Specifically, in Cohen’s view, *no* generalizations can be made about the invited inferences or felicity conditions of the ER, except that the emphatics indicate comparison, which is to say, contrast with some reference to a scale of likelihood. The pragmatic view has its place in that discourse context is indeed relevant to the interpretation of ERs, and Cohen’s theory does not require special lexical ambiguities. However, the theory as a whole is far too weak, offering no predictions of the particulars of their distribution but only a descriptive generalization.

For Eckardt, on the other hand, most exclusive readings, including the delegative reading of (12) are the equivalent of “instead-of”. The antecedent of the ER has failed to delegate the performance of the action to another person, and is thus an agent of the action instead of that person. The fact that the other individual would have done the action *for* the agent is not relevant in this characterization. Therefore, Eckardt must claim the existence of a separate “assistive *selbst*” to account for the assistive reading, where the antecedent of the ER was always intended as the agent, but merely did not have help in the action.

$$(13) \quad [[selbst]] = ID$$

$$(14) \quad [[selbst_{assistive}]] = \lambda e \neg \exists x (ASSIST(x, e))$$

Bergeton also recognizes the assistive reading (and in fact does not distinguish it from other types of adverbial exclusivity), and proposes a similar ambiguity. He suggests that while Danish *selv* is an intensifier in other readings, when it is sentence-final, it is simply a manner adverbial analyzed as semantically equivalent to *alone*. However he does not go into detail about how the exclusive reading should be derived from *selv* in this “secondary predicate construction” (2004:89).

3 The proposal

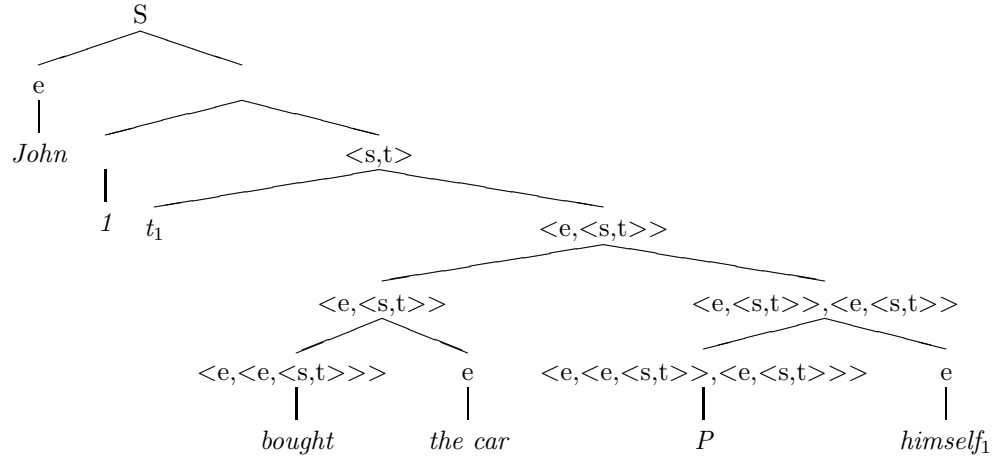
3.1 The semantics of the adverbial ER

This section provides an answer to Problem 1, introduced in section 2.1: how can we integrate an ER as an argument? Unlike German, ERs in English and other languages have the surface form of a reflexive pronoun. Instead of stipulating a distinct lexical entry for ER, such as Eckardt’s (2001) identity function, I propose that ERs denote bound variables which, like Reinhart and Reuland’s (1993) logophors ((4) and (5)), are integrated into the sentence by means of a predicate that is distinct from the sentence main predicate. The difference is that this predicate is silent in ERs, while overt in logophors. As for the semantics of this predicate (let us call it P), I propose that it denotes a relation whose arguments are an individual and a one place predicate (denoted by the sentence VP). To the extent that the presence of a predicate with such properties can

be assumed, it addresses the compositionality problem that a bound variable analysis faces. The variable denoted by the ER is the first argument of such a predicate, just as logophors and ordinary reflexives are arguments of overt predicates (cf. Reinhart and Reuland 1993) or verbs respectively.

In the following structure s indicates an event type, which undergoes existential closure over the entire sentence.

(15)



If we agree that a P with these properties would provide a solution to the compositionality problem, we must establish what P could most plausibly mean. I suggest that P excludes the participation of other individuals as co-agents in an action, while making reference to the conditions under which co-agency is possible.

- (16)
- a. $[[P]] = \lambda x . \lambda F . \lambda y . \lambda e . F(y)(e) = 1$ and there is no z different from x s.t. $joined-agent(z, e) = 1$
 - b. For every z of type e and every event e , $joined-agent(z,e)$ is defined iff e is an activity or accomplishment in which another individual may participate.
If defined, then $joined-agent(z,e)$ is true iff z contributes to the execution of e .

The idea of a predicate or preposition occurring with an exclusive ER has precedent. König and Gast (2004) identify intensifiers with prepositions in African languages, though they describe the preposition as “basically meaningless.”

- (17) Podoko
awura letre maye ya baklazara [ba mudara maya]
open letters my I always [with head my]=INT
“I always open my letters myself”.

(Gast et al. 2003)

Leaving aside the question of whether *ba* in (17) means anything, we see that *joined-agent* is defined to contribute meaning only in those cases where the exclusive implicature is present. It creates a means by which another individual can participate in the event as a co-agent, which we take to mean an individual who contributes some type of assistance in the event. The predicate P further contributes the assertion that no such individual exists. This therefore represents a partial response to Problem 2 (see section 2.2), as it is the basis of the exclusive implicature, although I will go into more detail on this point in the next section.

The lexical entry above makes two important and desirable predictions. First, exclusivity is unavailable for predicates that are Vendler achievements and states. Second, it rules out the possibility of an NP or pronoun referring an individual who is not the agent as an argument of P.³

(18) #John bought a car P Bill.

If *joined-agent*(Bill,*e*) were true for this car-buying event *e*, the sentence would ultimately result in a contradiction, since P specifies that there can be no individual different from the agent (John) for which *joined-agent* is true. Therefore (18) is ruled out.

Let us return to the question of aspectual classes. First, note that *joined-agent* is defined only for activity and accomplishment predicates, where the event they describe must occur over a period of time (cf. Vendler 1957). Hole (2002) has observed that the exclusive reading is unavailable for stative predicates, yet the restriction seems to reflect not an agentive / non-agentive distinction, but rather durative / non-durative. The durative nature of activities and accomplishments provides the window of opportunity for the potential participation of another individual. *Joined-agent* is therefore crucially undefined for stative and achievement predicates, for which there is no span of time under discussion. If we assume that coordinating with another individual, or making use of their assistance, takes time, we predict that examples like (21) and (22) will be impossible: (21) is independent of time, and (22) is instantaneous.

(19) Activity: John (always) buys cars himself.

(20) Accomplishment: John built the house himself.

(21) State: #John lives himself.

(22) Achievement: #John won the race himself.

The correct aspectual classification of a predicate is not always clear. Although we may normally understand buying a car to mean going out and shopping for it, buying it may also be viewed as a punctual event: in one moment the

³Furthermore, it is also possible to implement this proposal within Bergeton's account. There seems no reason why we cannot say that a null reflexive pronominal element may serve as an argument of P, with the same restrictions. However, to preserve the simplicity of the current account I will maintain the standard bound variable analysis.

car is not yours, in the next it is. The reverse is also true. In many achievement predicates it is possible to infer a durative context leading up to the moment where the telos has been achieved; for example, John may well have had help in *preparing* to win the race in (22). However the actual winning of the race occurs in a single instant. In that reading, the exclusive implicature is unavailable.

(23) #At 3:07pm, John won the race himself.

Classification difficulties may also be the source of variable interpretations in activity predicates like (19). Without *always*, we may find that *John buys cars himself* by default suggests an additive context in which other people buy cars. This arguably reflects a stative reading of (19), e.g., John is the kind of guy who buys cars.

However, there are also cases of events that are activities or accomplishments but that do not have an exclusive reading. For these, it is not possible for another individual to participate in the event due to its inherent solitary nature.⁴ *Joined-agent* is undefined for such cases, although they are still acceptable in the additive reading (discussed in section 4).

(24) #John ran a mile himself.

(25) #John (always) runs himself.

Again, it may be necessary to be vague about whether (25) is better considered to be the kind of action to which another individual cannot contribute, or a state where no time period is defined during which another individual could contribute.

The definition of P crucially limits to exclusive reading to just those positions where it is found. Since it must take an individual and a function as an argument, it must adjoin to a VP, and cannot adjoin to the subject DP. Indeed, we never find the exclusive reading in the adnominal ER as the definition predicts. It is also important to note that P must occur as high enough in the structure to take an entire VP into account, but below any aspectual functional projection. P is seemingly not sensitive to progressive or perfective aspect, but the Vendler class of a predicate is sometimes made clear by other arguments to the verb. If the sentence tries to elicit the activity sense of buying a car (negotiating, comparison shopping, et cetera), the speaker might say that he bought a car “for a few hours”.

3.1.1 By oneself

Let us take a moment to comment on relationship between P and the predicate *by*, as in *by oneself*, as it is tempting to consider (26) as a possible paraphrase of (10). Yet there are key differences that preclude equivalence.

⁴For these cases, a similar type of coercion is possible, from an ostensibly solitary predicate to one which does allow the participation of others. For example, drinking is not an action in which another individual could serve as a co-agent, yet “I drank the coffee myself” seems fine. This is due to the fact that the reading in this case suggests a quantity of coffee that a number of people would normally have shared.

(26) John bought a car by himself.

In general we may say that *by*, in addition to being overt, has a less restricted distribution. *By oneself* is used if a speaker does not wish to make any commitment about what the role of another individual might have been, but only to say that the subject was unaccompanied. (26) contributes no information on whether John had help buying the car without a specialized context. Another difference between the two is that *by oneself* does not have the condition on the aspectual classification of the predicate.

(27) John ran a mile by himself.

(28) John (always) runs by himself.

What *by* and P have in common is that they are both predicates which take an individual as an argument, which must be a pronoun coindexed with the subject or agent. In neither case is it possible to have a full NP, or pronoun not referring to *John*, as an argument; for P, as we have seen, this would yield a contradiction arising from within its definition. In addition, borrowing further from Reinhart and Reuland, we see from (32) that if the individual arguments to P are coindexed, they must be reflexive-marked. This would seem to be true for *by* also.

(29) #John lives by Mary.

(30) #John bought a car Mary.

(31) #John₁ lives by him₁.

(32) #John₁ bought a car him₁.

3.2 The assistive vs. delegative alternation

Here I will address Problem 2, or how we may obtain a variety of inferences all of which may be characterized as exclusive in some way. As we recall from section 2, Eckardt discusses a difference between the delegative-exclusive reading, in which the antecedent didn't have something done for her, and the assistive-exclusive reading, in which the antecedent did not have help. She analyzes this difference in terms of a lexical ambiguity of ERs: when they are interpreted as an identity function, they can generate delegative readings, but if their second lexical entry (14) above is selected, then they generate assistive-exclusive readings. The choice of denotation, and thus the type of exclusivity, is determined by context. My view diverges from Eckardt's in that I claim that there is no reason to consider assistance to be different from alternative agency for the adverbial ER. Therefore there is no need for distinct, and ambiguous, lexical entries that produce the different readings.

The explanation centers on the fact that *joined-agent* is inherently vague and context dependent in a number of respects. The semantics require only

that the other individual contributed to, or assisted in, the execution of the event, without specifying how and to what extent. If John had not bought the car himself, but rather had bought it with his father, what was his father's exact contribution? We may think of the possibilities as ranging on a continuum from accompaniment for moral support, to a more helpful contribution such as paying or giving advice, to the extreme of performing the action for John, perhaps even without his presence. Even in this latter case, John is viewed in some sense as the agent, as becomes clear when one looks at examples like (33) (see discussion below). This range seems difficult to account for in the definition of a single predicate like *joined-agent*, especially given that some possibilities are more likely than others.

Context and type of event must therefore determine where the excluded individuals would have been on this assistance continuum. Given this, the assumption that the truth-conditional semantics involves only a vague predicate is sufficient to account for the variability in exclusive interpretations (assistive vs. delegative). Here are some examples of how these "interpretations" follow from the interaction of the weak requirements of *joined-agent* together with contextual factors and our world knowledge regarding the event denoted by the VP.

Aside from help, another person's contribution to an activity might make that person effectively an agent. If another individual was there to pay for the car, he might be considered an agent of that activity. While "exclusive" normally refers to the no-help or no-accompaniment reading for emphatics, a pure (i.e. not delegative) no-alternative-agent reading is theoretically possible for the adverbial as well.

(33) John built the house himself.

But it is plain that even in (33), we are saying that John wasn't helped by anyone with his house-building needs, that is, nobody did it for him - not that nobody did it simply instead of him, which Eckardt claims is the chief "exclusive" reading.

(34) #John built the house himself, not some construction company.

(35) John built the house himself, without a construction company.

(34) is best expressed (perhaps only expressed) by the adnominal reflexive. If we want to make a clearer statement about who the agent should have been, the reflexive and some version of P must be adjoined to the agent DP, although I leave the technicalities to a future study.

(36) John himself built the house, not some construction company.

In other words, the adverbial exclusive at best expresses that there was no secondary, helping agent, leaving it ambiguous over how much help that individual would have provided, and (33) is really another example of the delegative-exclusive case. World knowledge tells us that unless we know something about

John’s construction skills, he probably would not have built the whole house himself. (33) thus excludes help from the delegative end of the assistance continuum. Car buying is a different matter, as are many other activity predicates. It is in fact less likely that one would fully delegate the purchase of a car to another person except under very particular circumstances. From this we conclude that *himself* excludes individuals providing a type of help from somewhere earlier on the continuum, people who could have given, say, financial assistance.

We have seen something similar with *by oneself*, and the same may be found in *alone*.

(37) John bought a car alone.

John might be literally alone, but due to the nature of car buying, this is not likely. He might simply be without his family, or paying for the car alone. As in the case of *alone*, if *joined-agent* were true for an individual other than the primary agent, that individual may have participated in a number of ways including, but not necessarily, assistance (or lack of).

To summarize up to this point, the adverbial reading is normally exclusive in both the no-help and the no-secondary-agent sense, due to the fact that is adjoined to the VP, although the specific type of exclusivity is determined by context. Due to the exclusive component of P, the adverbial ER excludes additional participants in the action, as opposed to other possible agents of the action.

3.2.1 On cross-linguistic applications

The adverbial exclusive reading is extremely common; it is possible in “nearly all” of the 102 languages sampled in the typology of König and Gast (2004:2). However as we have seen, cross-linguistically, lexical items serving the same emphatic purpose are not reflexives or pronominal forms at all, and it is not obvious how this analysis would apply to such languages.

(38) Dutch
 mijn post maak ik altijd zelf open
 my letters make I always INT open
 “I always open my letters myself.”
 (Gast et al. 2003)

(39) German
 Maria hat die Aufgabe SELBST gelöst.
 Maria has the problem INT solved
 “Maria solved the problem by herself.”
 Eckardt (2001:401)

There are many languages besides English, however, where a pronoun is an element of an intensifier.

(40) French
 j'ouvre mes lettres moi-même
 I-open my letters I-INT
 "I open my letters myself"
 (Gast et al. 2003)

(41) Spanish
 mis cartas las abro siempre yo mismo
 my letters them I.open always I INT.SG.MASC
 "I always open my letters myself."
 (Gast et al. 2003)

For the invariant cases, we might assume there is a way to interpret them so that they refer to an individual, and the rest of this analysis would follow as for English. However, the analysis presented here is really intended to apply only to languages like English. For languages like German and Dutch, Eckardt's identity function analysis may well be correct. This duality should not be so very difficult to accept, as different languages frequently express the same information needs via different devices.

4 Open questions: Adnominal ERs and other interpretations of adverbial ERs

In this section I will briefly discuss the case where the adverbial ER does not have an exclusive implicature, but rather an additive implicature. This is in fact the predominant interpretation of the adnominal ER, and I believe these cases can ultimately be unified. For now, I will simply introduce the facts of additive readings with the intention that they be handled via the silent predicate / *joined-agent* analysis in a future study.

4.1 ERs and focus particles

Other interpretations of the ER, which do not involve exclusivity, share two characteristics: first, they are available in both the adnominal and adverbial construction, and second, they involve focus. It is possible to see a parallel between ERs and focus particles, such as *even*, *also*, and *too*. This has been the motivation for several previous studies of emphatics (e.g., König 1991, Cohen 1999), especially because *self* and *even* share the same form in many languages, such as French *même* and Danish *selv*.

Emphatics have often been directly identified with *even*, so in order to understand the common implicatures, it is necessary to discuss *even* in more detail than in section 2.2. In the Karttunen and Peters (1979) analysis, *even* triggers focus and creates both a scalar implicature (scale of likelihood) and an existential / additive implicature, both applying to propositions in the focus semantic value. I will first briefly discuss the former. Scalar implicature is the information that emphatics express a particularly unlikely state; the asserted

proposition is the one least likely to be true of all the focus-generated alternatives. The source of the scalar implicature for ERs is debated. According to Eckardt (2001), the unlikelihood of the asserted proposition is contributed by an additional emphatic operator, *Emph.Assert* (Krifka 1995). On the other hand, Bergeton (2004) and others believe that a scale of likelihood is not basic to emphatics at all, although he offers only a very few examples in support. I do not agree with his intuitions on scalarity, however, and I generally do agree with those who say that the scalar implicature is common to at least all of the additive cases.

Although the idea of surprise or unlikelihood is often the first that comes to mind for ERs, additivity is more relevant to the present account, and in the following section I will focus on that and not scalarity.

4.2 Additivity and the ER

The additive contribution is that at least one proposition in the focus value of a sentence is true in addition to the proposition expressed by its ordinary semantic value. Again, this frequently applies to the adnominal ER, which is adjoined to the DP containing its antecedent. We see the adnominal reflexive in (42).

(42) John HIMSELF bought a car

The emphatic may also appear sentence-medially with the same effect. According to Bergeton (2004) this is a case of Q-floating, where the DP has moved up from the spec-VP and stranded its adjunct.

(43) John has HIMSELF bought a car.

Both the adnominal and adverbial ER may be paraphrased as *even* or *also*, depending on the context. They cannot be used felicitously in the additive sense unless other propositions have already been expressed, or are about to be, which are true for alternatives generated by focus on the ER (cf. Rooth 1992). However, the additive implicature can be suspended by appropriate context. For example, the predicate in (44) does not easily accommodate the idea of alternative agents buying one unique car, although this is technically possible if “the car” is not a unique car but, for example, a particular make.

(44) John bought the car himself.

(45) Bill bought the Toyota Camry. John bought the Camry himself.

There are two cases where the adverbial ER may introduce an additive implicature. The first is when alternative agents are explicit in the context.

(46) My parents bought a car last year, and this year I bought a car myself.

The second case is the reading that is found when *joined-agent* is undefined (see section 3.1). These include stative and achievement predicates as well as those durative events to which another individual cannot contribute. Like additive focus particles, it is infelicitous to utter these in out of the blue contexts.

(47) John has a car himself.

(48) Leif is a fluffy cat himself.

In these cases, other car owners or cats must be under discussion. It is true that the “out of the blue test” is not very reliable, as even the clearest exclusive example, (10), could seem a little odd without the mention of other parties. The important distinction is that in the exclusive case the other possibilities are those people who could have helped John buy a car, but didn’t, whereas in the case of an additive implicature, the other people did buy cars.

5 Conclusion

In this paper I have proposed a theory for deriving the exclusive implicature of the adverbial emphatic reflexive, which has only one stipulation: the reflexive is integrated into the structure as an argument of a silent relational predicate P, which excludes the participation of individuals other than the primary agent in the domain of actions for which it is defined. This account has the potential to unify all occurrences of reflexives, whether they are emphatic, logophoric, or ordinary reflexive anaphors, while removing the need for an ambiguous lexical entry for emphatics or intensifiers. Future work will extend this analysis to cover the additive readings characteristic of the adnominal ER.

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