

## THE SEMANTICS AND PROSODY OF POST-NOMINAL FOCUS PARTICLES

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The sentence (1) contains an example of an adnominal emphatic reflexive (adnominal ER), namely *himself*.

- (1) **The Provost himself** will chair the committee.

The formal semantics literature offers two main approaches to the meaning of this construction, both incorporating a semantics for focus. The FOCUS SENSITIVE OPERATOR approach (e.g. König 1991, Siemund 2000) claims that *himself* is one of a handful of post-nominal focus operators that include English *only* and *alone*. These operators have scope over the associating nominal (e.g. *The Provost*) and evoke alternative individuals.

- (2) FOCUS SENSITIVE OPERATOR  
[[ [ the Provost ]<sub>F</sub> ~ ] himself ] will chair the committee  
Alternative set: {the President, the VP-Academic, the Dean of Science...}

The FOCUSED ASSERTION OF IDENTITY approach (e.g. Eckardt 2001, Hole 2002, Gast 2006) maintains that *himself* is an identity function *ID()*, returning the value of whatever nominal argument is supplied to it. On this approach, *himself* is invariably focused and it is in this capacity that it contributes meaningfully to the interpretation of the sentence. Alternatives to the identity function are other relational predicates, e.g. functions from individuals to other individuals.

- (3) FOCUSED ASSERTION OF IDENTITY  
[the Provost [himself]<sub>F</sub> will chair the committee ] ~ ]  
Alternative set: {ASSISTANT-TO(the Provost), NOMINEE-OF(the Provost), WIFE-OF(the Provost) ... }

The goal of this paper will be to defend the FOCUS SENSITIVE OPERATOR approach<sup>1</sup>, which may be extended to other postnominal focus operators. Section 2 distinguishes the adnominal ER from other ERs and discusses the syntax of these and other postnominal focus particles. In Section 3, I address criticisms of the FOCUS SENSITIVE OPERATOR approach. Some of the criticisms are primarily syntactic in nature, some semantic, some pragmatic, and some concern the interface principles between these modules. The form of nearly all of the criticisms is that the adnominal ER simply does not behave like a focus sensitive operator should. My claim is that there is no convincing

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<sup>1</sup> For a specific account of the adnominal ER, the reader is referred to Howell (in progress).

evidence that the adnominal ER is not a focus-sensitive operator. Responding to these criticisms is therefore more than formal exercise, but an investigation and review of what a focus sensitive operator may or may not be, at least in English.

## 1. Preliminaries

### 1.1 What Adnominal Emphatic Reflexives Aren't

Non-emphatic reflexives always occur as an argument of a verb, while emphatic reflexives *never* occur as arguments, but rather as adjuncts. The verb *serve* requires an internal argument and the reflexive in (4) can therefore only be interpreted as this argument. The verb *swerve* may occur with just an external argument; in (5) the external argument is *John*, and so the reflexive is most naturally interpreted as an adjunct. Prosodically, the non-emphatic reflexive is deaccented: it is realized with less prominence than the verb, in much the same way (perhaps exactly the same) as a non-reflexive pronoun (cf. *John served him*). The emphatic reflexive is more typically realized with the same prominence as a non-pronominal argument or adjunct (cf. *John swerved the car*, *John swerved anxiously*).

- (4) John served **himself**.  
 (5) John swerved **himself**.     ≈ ‘John swerved also’

As further evidence of the distinctness between emphatic and non-emphatic reflexives, consider the co-occurrence of reflexive forms in (6B).

- (6) A: John served **himself**.  
       B: And Tom served **himself himself**.

Emphatic reflexives further divide into three categories: agentive, additive and adnominal.

The agentive ER, illustrated in (7), signals the direct involvement of an agent and is distinguished both syntactically and semantically. Syntactically, the agentive ER has the distribution of a verbal adjunct according to tests of adjuncthood (ellipsis in 8a, pseudo-clefting in 8b).<sup>2</sup>

- (7) John built the house **himself**  
 (8) a. My sister had her kids rake up leaves, but I did \*(so/it) **myself**  
       b. What I did **myself** was rake the leaves

The agentive ER is sensitive to aktionsart, occurring only with Vendler-Dowty accomplishment predicates. As indicated by the glosses in (9-12), the felicity of

<sup>2</sup> Limitations of space prohibit a more complete discussion of the distinguishing syntactic, semantic-pragmatic and prosodic properties of the agentive and additive ER. The reader is referred to Howell (in progress).

the agentive ER depends on the existence of unique subevents; activities are homogeneous and states either homogenous or inherently non-eventive and are therefore incompatible with the agentive ER. Achievements are composed of an activity and a state.<sup>3</sup> The examples in (10-12) may however be improved if the predicate is understood as substituting for an accomplishment predicate: for example, *found his hotel*, *got to sleep* and *performed an act of kindness*, respectively. This suggests a pragmatic rather than semantic restriction.

- (9) Accomplishment                      John **built the house** himself.  
 ≈ ‘At least one subevent of house building is such that John was the agent’
- (10) Achievement                        # John **arrived in Detroit** himself.  
 ≈ ‘At least one subevent of arriving in Detroit is such that John was the agent’
- (11) Activity                                # John **slept** himself.  
 ≈ ‘At least one subevent of sleeping is such that John was the agent’
- (12) State                                    # John **is a terrific guy** himself.  
 ≈ ‘At least one subevent of being a terrific guy is such that John was the agent’

The agentive ER is also distinguished from other ERs by its compatibility with degree modifiers.

- (13) Degree modifiers  
 John built the house (**mostly / half / partially / all**) **himself**.  
 ‘Most / half / part / all of the subevents of building the house were such that John was the agent.’  
 ≠ ‘John built most / half / part / all of the house’

The additive ER, as the label suggests, is an additive particle, similar to additive focus particle *also*.<sup>4</sup> Syntactically, it is an adjunct like the agentive ER and may precede or follow the verbal projection (cf. ellipsis and pseudo-clefting in 14).

- (14) a.     John will wash the dishes, and Tom will (do so) **himself**  
 a'.     John will wash the dishes, and Tom will **himself** (do so)  
 b.     What Tom will do **himself** is wash the dishes  
 b'.     What Tom will **himself** do is wash the dishes

As Jackendoff (1972) has noted for other additive particles, the additive ER may follow a first but not a second auxiliary.

- (15) John knows what it means to be honoured, because

<sup>3</sup> See Tavano (2006), König & Gast (2006) and Ahn (2008) for related discussion.

<sup>4</sup> Browning (1993) goes so far as to label them ‘also-reflexives’.

he is **himself** being (**\*himself**) honoured

Unlike the adnominal ER, the additive ER associates with an argument in subject position only (cf. 16) and semantically has propositional scope. The rest of the proposition must be salient of some other individual and prosodically the remaining proposition must be realized with less prominence. The additive ER is therefore infelicitous in “all-new”/ “out-of-the-blue” contexts, as in (17).

(16) John knows what it means to receive an award from the academy, because the academy gave **John** an award (**\*himself**)

(17) A: What’s new?                      B: # Tom is being honored **himself**.

## 1.2 Syntactic Distribution

The adnominal ER is distinguished from the other two categories of ER in its syntactic distribution. With its associated nominal, the adnominal ER may occur in most argument positions, as illustrated in (18).<sup>5</sup>

- (18) a. **John himself** will sleep.  
 b. **John himself** has grown up quickly.  
 c. I saw **John himself**.  
 d. I gave **John himself** the torch.  
 e. I gave John **the torch itself**.  
 f. The torch was lit by **John himself**.  
 g. I built the house with **John himself**.  
 h. I persuaded **John himself** to attend the party.  
 i. I promised **John himself** to attend the party.  
 j. I remember **John himself** building the house.

Syntactically, we’ll say that a pre-auxiliary ER is adnominal and a post-auxiliary ER is additive. Consider the distribution of postnominal DP-modifying *only* and pre-auxiliary VP-modifying *only*. Examples without overt auxiliaries like (19) are string-ambiguous. The presence of the auxiliary disambiguates the particle’s syntactic position (cf. 20-21).

- (19) The President *only* persuaded Congress.  
 a. = ‘No one other than the President persuaded Congress’  
 b. = ‘The President persuaded no individuals other than Congress’

- (20) The President **only can** persuade Congress.  
 a. = ‘No one other than the President can persuade Congress’  
 b. ≠ ‘The President can persuade no individuals other than Congress’

<sup>5</sup> The distinction between additive ERs and adnominal ERs in subject position is more subtle; when the adnominal ER is focused, it may produce a (more restricted) additive reading. The FOCUSED ASSERTION OF IDENTITY approach takes to be the only available reading (cf. 3); see Section 3.2.3 for counterexamples.

- (21) The President **can only** persuade Congress.  
 a. ≠ ‘No one other than the President can persuade Congress’  
 b. = ‘The President can persuade no individuals other than Congress’

An exception to the generalization that [XP himself] may occur in all different argument positions is the Saxon genitive, which not compatible with the adnominal ER.

- (22) a. \* I met **John himself’s** daughter.  
 b. \* They objected to **Tom himself’s/Tom’s himself** doing it.

I will not offer an explanation for this distributional restriction. It is worth noting, however, that post-nominal focus operators *only* and *alone* share this same distribution.

- (23) a. **John only/alone** will sleep.  
 b. **John only/alone** has grown up quickly.  
 c. I saw **John only/alone**.  
 d. I gave **John only/alone** the torch.  
 e. I gave John **the torch only/alone**.<sup>6</sup>  
 f. The torch was lit by **John only/alone**.  
 g. I built the house with **John only/alone**.  
 h. I persuaded **John only/alone** to attend the party.  
 i. I promised **John only/alone** to attend the party.  
 j. I remember **John only/alone** building the house.
- (24) a. \* I met **John only’s/ John alone’s** daughter.  
 b. \* They objected to **Tom only’s / Tom alone’s** doing it.

### 1.3 Agreement and C-Command

The adnominal ER is also distinct in forming a constituent with its associate. Siemund (2000) applies a battery of constituency tests to establish their syntactic relationship, including the following. Again, the postnominal focus operators *only* and *alone* behave identically.

- Stand-alone  
 (25) Who mowed the lawn? John **himself/only/alone**.

<sup>6</sup> In addition to post-nominal *only* and post-nominal *alone*, there also exists a post-verbal *only* and post-verbal *alone* which are potentially string-ambiguous. Post-verbal *only* is similar in meaning to pre-verbal *only*.

(i) The torch was lit by John *only*, not carried.

Post-verbal *alone* is more similar to the agentive ER, indicating lack of assistance/delegation or accompaniment.

(ii) I gave John the torch *alone*. i.e. no one helped me or no one else was present.

Object NP deletion

- (26) a. The children ate the cake **itself/only/alone**  
 b. The children ate \_\_\_ (**\*itself/\*only/\*alone**)

Pronoun replacement

- (27) a. The director **himself/only/alone**, who ...  
 b. Paul **himself/only/alone** thinks that he ...

Topicalization

- (28) Ben Nevis **itself/only/alone**, I would like to climb \_\_\_.

Like all reflexives, the adnominal ER must agree in phi-features, namely person, number and gender, with its associate. It is this requirement which is responsible for the co-occurrence restrictions listed in (29).

- (29) a. the cake **itself** / \*himself / \*herself / \*themselves / \*ourselves  
 b. the boys \*itself / \*himself / \*herself / **themselves** / \*ourselves

We might also reasonably assume that the agreement is syntactically licensed by c-command of the adnominal ER by its associate (cf. Principle A of standard binding theory)<sup>7</sup>. Other postnominal focus operators in English lack agreement morphology; indeed, focus operators in Germanic are notoriously uninflected (cf. Siemund 2000:14). One need only look as far as French, however, to observe agreement in a postnominal focus marker similar to English *alone*. The French form *seul*, which like *alone* may also occur as a predicative adjective or verbal modifier, must agree in number and gender with the associating nominal (e.g. 30).

- (30) a. Lui **seul**/\*seule/\*seuls/\*seules sait pourquoi.  
 ‘He alone knows why.’  
 b. Elles \*seul/\*seule/\*seuls/**seules** savent pourquoi.  
 ‘They (f.) alone know why.’

### 3. Criticisms of the Focus-Sensitive Operator Approach

#### 3.1 Focus and C-Command

Against the FOCUS-SENSITIVE OPERATOR approach, Eckardt (2001) asserts that the putative focus operator does not c-command its putative associate.<sup>8</sup> While this is a plausible assertion for the additive and agentive ER, which adjoin to a verbal projection and do not c-command an external argument, it remains to be shown that this relation does not hold of the English adnominal ER.

Moreover, it is no longer clear that c-command is even a prerequisite for all cases of association with focus. In a survey of a variety of focus sensitive

<sup>7</sup> Although see discussion of additive ER in Howell (in progress). Unlike the adnominal ER, it is not obvious how the additive ER might c-command its associate.

<sup>8</sup> Eckardt’s analysis is based on German stressed *selbst*.

constructions, Beaver & Clark (2008) observe that while many focus sensitive constructions are lexically specified for focus (conventional association), and require an operator to c-command its associate, many focus sensitive constructions do not.

The exclusive particle *only*<sup>9</sup>, for example, must c-command its associate, while the quantificational adverb *always*<sup>10</sup> does not. This behavior is shown by extraction of the putative focus associate from a variety of different contexts.

In (31), *always* may associate with *what*, yielding the reading in (a), or *his mother*, yielding the reading in (b). In (32) by contrast, *only* cannot associate with *what* with the reading in (a), although it can associate with *his mother* to give the (b) reading. According to Beaver & Clark, an operator like *only* must associate with a lexical constituent in its c-command domain. (32) is ungrammatical on the (a) reading because the associate *what* has been extracted outside of this c-command domain. The same reading is available for *always* because it is not subject to this same constraint.

- (31) What do you think Karl always gives his mother \_\_\_\_ ?
- a. ✓ Association with *what*  
‘What is the thing such that Karl gives that thing and nothing else to his mother?’
  - b. ✓ Association with *his mother*  
‘What do you think gives his mother and no one else?’
- (32) What do you think Karl only gives his mother \_\_\_\_ ?
- a. ✗ Association with *what*  
‘What is the thing such that Karl gives that thing and nothing else to his mother?’
  - b. ✓ Association with *his mother*  
‘What do you think gives his mother and no one else?’

Beaver & Clark observe the same pattern for other extraction contexts, including *wh*-relatives, topicalization, adverb preposing and inverted *wh*-clefts. Given this taxonomy of focus sensitive constructions, it does not follow that lack of c-command over a putative associate excludes a focus-sensitive operator account of a given particle. Nonetheless, these same tests do indeed support a conventional focus association account of the adnominal ER, as well as other post-nominal focus operators *only* and *alone*.<sup>11</sup> (Asterisks in the following examples indicate ungrammaticality for association with the extracted constituent.)

*Wh-questions*

- (33) \*What do you think Karl gives his mother \_\_\_\_ **itself**?  
 (34) \*What do you think Karl gives his mother \_\_\_\_ **only/alone**?

<sup>9</sup> Beaver & Clark test only VP-*only*.

<sup>10</sup> According to Beaver & Clark, focus constrains the domain variable introduced by *always*.

<sup>11</sup> See also cases of ungrammatical ellipsis and extraction in Siemund (2000).

*Wh-relatives*

- (35) \*We should thank the man whom Mary took \_\_\_ **himself** to the movies.  
 (36) \*We should thank the man whom Mary took \_\_\_ **only/alone** to the movies.

*Inverted Wh-Cleft*

- (37) \*Guinness is what I think Kim wants to drink \_\_\_ **itself**  
 (38) \*Guinness is what I think Kim wants to drink \_\_\_ **only/alone**

*Topicalization*

- (39) \*Fishsticks, I believe Kim buys \_\_\_ themselves  
 (40) \*Fishsticks, I believe Kim buys \_\_\_ **only/alone**

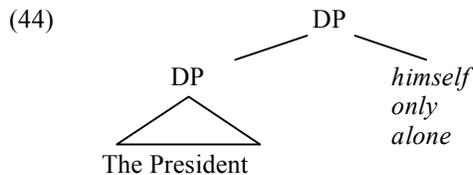
*Adverb Preposing*

- (41) \*On Sunday, I thought you went to the store \_\_\_ **itself**  
 (42) \*On Sunday, I thought you went to the store \_\_\_ **only/alone**

All of these tests are consistent with the principle of lexical association. Since VP-*only* is the paradigmatic case of lexical association with focus, it is highly desirable for post-nominal *only* to follow this principal also.

Finally, as pointed out by Siemund (2000), the adnominal ER attaches above other adjuncts (e.g. 43). Again, post-nominal *only* and *alone* pattern identically. This leads us to a syntactic representation like (44).

- (43) a. the room [underneath the kitchen] **itself/only/alone**  
 b. ?? the room **itself/only/alone** [underneath the kitchen]

**3.2 No Focus Exponent**

The next criticism stems from the basic impressionistic observation that what is interpreted as “focus” by semantics or pragmatics corresponds to prosodic prominence in phonology (45a). It seems that both defenders and detractors of the FOCUS-SENSITIVE OPERATOR approach take for granted that the putative focus associate of an adnominal ER lacks prosodic prominence (45b). Defenders (e.g. König 1991, König & Siemund 1996) accept this as an idiosyncratic fact of the adnominal ER and of postposed focus operators more generally; certain detractors (e.g. Echardt 2000, Hole 2002; König & Gast 2006) regard the absence of prosodic prominence as a major failing of the FOCUS-SENSITIVE OPERATOR approach. The criticism has the structure in (45).

- (45) Structure of the Criticism  
 a. Premise: Semantic focus is realized by prosodic prominence

- b. Claim:                    The putative associate is not prosodically prominent  
 c. Conclusion:            The associate is not focused

Whether the nominal associated with the adnominal ER lacks prominence, either in absolute categorical terms or relative to its phonetic and phonological environment, is a largely empirical question. I will show that the nominal does not lack prominence by phonological or phonetic criteria, or at least that we cannot reasonably assume the absence of prominence. I will also argue that an apparent lack of prominence does not constitute a mismatch between phonology and meaning. This last argument is largely theoretical, although it relies on the notion found in much theoretical work on focus that the scope of focus in syntactic-semantic representation corresponds to a prosodic domain in the phonological representation, and that focus and prominence are evaluated relative to these domains.

### 3.2.1. Relative Prominence

Many linguists<sup>12</sup> investigating focus and prominence have proposed a correspondence between the semantic scope of focus and the phonological domain of focus similar to (46).

- (46) STRESS-F (Rooth 2009)  
 Let  $\beta$  be an F-marked phrase with scope  $\phi$ . Then the strongest stress in the phonological realization of  $\phi$  falls within the realization of  $\beta$ .

On a FOCUS SENSITIVE OPERATOR analysis, the associate is focus-marked. With clausal scope of focus, the associate would be realized with greatest prominence within the domain corresponding to the clause; and the rest of the clause will be relatively less prominent or deaccented. According to König (1991) and Siemund (2000), however, the scope is much narrower. In fact, the scope  $\phi$  and focus  $\beta$  of the adnominal ER are co-extensive, meaning that the strongest stress within the realization of the associate will necessarily be contained within itself.

- (47) (H\*...) (H\*...) (H\*...) (H\*...)  
 (x) (x) (x) (x)  
 x x x x x x x  
 x x x x x x x  
 [he]<sub>F</sub> himself will chair the committee  
 $\beta$  {  
 $\phi$  {

Typically, prominence at the sentence level is realized with intonation and greatest prominence corresponds to the last, or “nuclear” pitch accent. In (47), the associate *may* be realized with a nuclear accent, but is also compatible

<sup>12</sup> e.g. Chomsky 1971, Jackendoff 1972, Truckenbrodt 1995, Zubizarreta 1998, Büring 2008

with other levels of prominence. Indeed, Rooth (1996b) and Beaver *et al.* (2007) have shown that a putative focus associate may lack a pitch accent entirely in its prosodic realization, but may nonetheless be realized with greatest prominence (e.g. duration, intensity) within the domain corresponding to the scope of focus (although see discussion in Howell 2010).

The important observation is that absence of pitch accent on the associate of an adnominal ER does not violate Stress-F and is compatible with the FOCUS-SENSITIVE OPERATOR approach. Any prosodic variation on the associate will require an independent explanation.

### 3.2.2 Quantitative Evidence

A subcorpus of data for the adnominal ER was harvested from the web (Howell & Rooth 2010). 232 tokens of the target *he himself* were phonetically annotated.

While there is no objective measure for the presence of pitch accent, a crude measure of relative phonetic prominence compares the value of *f0* max in the interval corresponding to the nominal *he* and the *f0* max corresponding to the stressed syllable of *himself* (i.e. *-self*). Again, on the hypothesis that the associated nominal *he* lacks prominence or is deaccented, we expect that the *f0* maximum in the *-self* interval is consistently greater than that in the *he* interval.

In 127 of the 232 utterances in the subcorpus (approximately 55%), the maximum *f0* for *he* was greater than the maximum *f0* for *-self*. By this measure, then, in roughly half of the utterances, the associate was indeed realized with relative local prominence.

### 3.2.3 Qualitative Evidence

Ahn (2008) is the only previous study on the prosody of emphatic reflexives I am aware of. Three native English speakers read scripts containing emphatic reflexives, 24 scripts in total, 8 of which contained adnominal ERs. The utterances were labeled prosodically by two trained annotators using the MAE\_ToBI conventions (cf. Beckman *et al.* 2005). In this framework, prominence is largely categorical, syllables either having or lacking a pitch accent. On the hypothesis that the associated nominal of an adnominal lacks prominence or is deaccented, we should expect the nominal to be realized without a pitch accent. Instead, Ahn reports that in approximately 60% the utterances containing an adnominal ER, the associate was labeled with a high pitch accent (H\*). (He does not report in how many cases the nominal was labeled with some other pitch accent type.)<sup>13</sup>

The adnominal ER in fact occurs in a variety of clause-level focus configurations (cf. Howell *in progress*). For example, in the “all-new” case, the associate *he* is realized with the highest pitch accent in the utterance (cf. 48-49).

(48) **He himself** was always a really valiant intractable individualist.

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<sup>13</sup> He does include 10 unique pitch tracks and corresponding MAE\_ToBI annotations of sentences containing adnominal ERs. The nominal is labeled with a pitch accent in 9 out of these 10 cases.

- (49) **He himself** has said on multiple occasions that he knows nothing about economics.

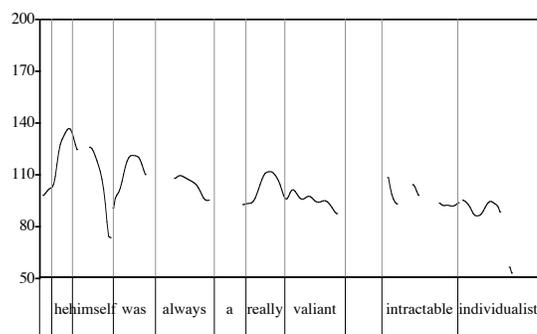


Figure 1. *F0* track of example (48), from web-harvested speech corpus.

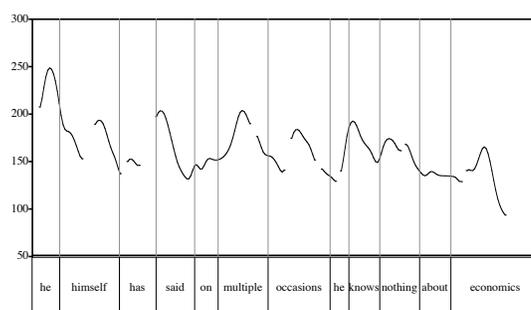


Figure 2. *F0* track of example (49), from web-harvested speech corpus.

### 3.3 Focus Operators Operate on Propositions Only

Cunningham (2009) proposes (independently) that the adnominal ER orders its associate relative to alternative individuals, while it has been previously assumed that the adnominal ER affects (whether directly or indirectly) an ordering of alternative propositions. This claim, according to Cunningham, is at odds with a view of focus operators as propositional. Cunningham's criticism has the structure in (50).

- (50) Premise: Focus operators are propositional  
 Claim: The adnominal ER orders individuals, not propositions  
 Conclusion: A focus approach cannot account for the adnominal ER

While I will agree with Cunningham's claim that the adnominal ER orders individuals, I reject the premise that focus operators are propositional.

Edmonson & Plank (1978) and most subsequent authors have characterized the adnominal ER as having two opposite readings: a "surprise" reading and a "non-surprise" reading. On a surprise reading, the associate is the

least likely alternative to be true of the predicate. For example, in (51), the director is the least likely individual to attend the informal meeting.

(51) **The director himself** attended our informal meeting. (Siemund 2000)

Let's informally assume that a relation  $R$  of 'likelihood' (partially) orders alternative propositions (... *The regional managers attended our informal meeting*  $>_R$  *The general manager attended our informal meeting*  $>_R$  *The director attended our informal meeting*).

Now consider (52), in which the associate *the King* is not the least likely to be true of the predicate. Rather, the King is the most likely to be true of the predicate.

(52) **The King himself** wore a crown. (Eckardt 2001)

More often, however, it is clearly individuals which are ranked, independently of the predicate. The context of (53) is such that all salient individuals (i.e. all individuals present in central Rome, including the Vatican) are equally likely to perish in the rubble. Assuming that John, who lives in an apartment at the centre of Rome, and the Pope were both near the epicenter of the earthquake, the propositions 'The Pope perished in the rubble' and 'John perished in the rubble' should be equally ranked by an ordering relation of likelihood.

(53) *A very powerful earthquake struck the centre of Rome and the Vatican*  
**The Pope himself** perished in the rubble. (Bergeton 2004)

*Himself* is felicitous in (53) because we agree that the Pope is highly ranked according to a relation  $R$  of sociological importance (partially) ordering individuals.

Now, let's turn to the mechanics. In Rooth (1985,1992), the semantics of focus are defined recursively and focus is interpreted by focus interpretation operator  $\sim$  (Rooth 1992), which fixes the scope of focus and determines a discourse antecedent  $k$ . For example, the operator  $\sim$  in (54b) requires a discourse antecedent  $k$  of the form 'John introduced  $x$  to Sue'.

(54) a. [John introduced Tom to Sue] $k$   
b. No, [[S John introduced [Bill]F to Sue]  $\sim k$  ]

Formally, discourse antecedence is licenced by entailment: a discourse antecedent  $k$  ENTAILS the focus semantic value with existential closure  $f$  (cf. Rooth 2008, Schwarzschild 1999). (54a) is a possible discourse antecedent for (54b) because it entails the focus semantic value of (54b) with existential closure, namely (54').

(54') a.  $k = \text{introduce}(j,t,s)$  'John introduced Tom to Sue'  
b.  $f = \exists x.\text{introduce}(j,x,s)$  'John introduced someone to Sue'

In principle, a focus operator can apply to any constituent. (55) is one version of an often cited example of focus induced interpretation below the level of the clause, due to Rooth (1985).

- (55) a. An **American farmer** was talking to a **Canadian farmer**.  
 b. An  $[[_{NP} \text{American}_F \text{ farmer}]_3 \sim 4]$  was talking to a  $[_{NP} \text{Canadian}_F \text{ farmer}]_4 \sim 3]$

In each DP  $\sim$  requires an antecedent that entails  $\exists x.\text{farmer}(x)$ , which is satisfied by the other NP. Note that no propositional antecedent is required; there is no discourse antecedent in (55) of the form ‘A P farmer was talking to a Q farmer’. The scope of focus for an adnominal ER is likewise fixed at the level of DP.

- (56) a. **The Pope himself** perished in the rubble.  
 b.  $[[\text{the Pope}]_F \sim 2] \text{ himself}]$  perished in the rubble.

The focus interpretation operator  $\sim$  requires only a discourse antecedent of the form ‘x’ where x is an individual. This requirement is notably weak, and we’ll consider the possible objection to its weakness and the role of focus below. What is important is that (56) is felicitous without a propositional discourse antecedent, of the form ‘x perished in the rubble’. In other words, (56) is compatible with a situation in which no one else has perished in the rubble and is felicitous in an utterance context in which perishing in the rubble is not salient for any other individual.

It is important to note, however, that it is the semantics/pragmatics of the adnominal which motivate a non-propositional analysis, rather than its syntax. Kadmon (2001) shows that an operator like *only* which is a NP or VP modifier syntactically, may nonetheless be semantically interpreted as a propositional operator. The postnominal focus-sensitive operators *alone* and *only* are argued above to belong syntactically to the DP they associate with, and this is reflected in their association with focus effects. Unlike the adnominal ER, however, *only* and *alone* affect truth conditions and are interpreted semantically as propositional operators (cf. *The Pope alone perished in the rubble*).

- Postnominal *only* / *alone* quantifying over propositions  
 (57)  $P([[ \alpha ] \text{ only} ]^{\text{P}}) = \{w \in W: \text{for all } d \in C \subseteq D_e \text{ if } w \in P(d) \text{ then } d = [[ \alpha ]^{\text{P}}]\}$   
 where C is contextually given set of (sets of) individuals

### 3.4 Scalarity Without Focus

Cunningham (2009) proposes a semantics for adnominal ERs without focus semantics. She suggests that because of their scalar behavior, adnominal ERs pattern more parsimoniously with gradable adjectives. According to Cunningham, both map their argument onto a scale: gradable adjectives to a scale of degrees and the adnominal ER to a scale of individuals.

Many of the associates found in the literature on adnominal ERs (e.g. President, director, king) belong to easily accessible real-world hierarchies, such as constitutional, corporate or feudal rank. Bayer (1996) notes, however, that

there is nothing inherent in proper names that trigger any kind of scale. Obama or British Petroleum, for example are not inherently scalar. While this suggests that the scalar interpretation in (58-59) must indeed be triggered by the adnominal ER, rather than its associate, the adnominal ER does not contribute to the meaning of a scale of individuals in the same way that *old* or *liberal* contribute a scale of degrees. The adjective *old* invokes a conventionalized scale with degrees relative to chronology (e.g. days, weeks, years); the adjective *liberal* will map individuals to degrees of “liberalness”. While both these scales will be context-sensitive, what counts as a degree for such a predicate is nonetheless highly constrained. The possible rankings for Obama and British Petroleum, by contrast, are in principle infinite.

- (58) **Obama himself** will sign the treaty.  
 (59) **British Petroleum itself** has admitted wrongdoing.

Cunningham’s positive argument for a focus-less semantics of adnominal ERs appeals to parsimony, and my next reply takes roughly the same tact. Several scalar particles in English and other languages are at least homophonous with focus particles, and have been analyzed as focus particles. The association with focus behavior of the scalar additive *even* has long been noted (e.g. Jackendoff 1972), and *only*, another classic focus particle, has also begun to be studied on its scalar interpretation (cf. 60) (e.g. Bayer 1996; Klinedinst 2004).

- (60) After ten years at university (Klinedinst 2004)  
 Bill **only** has a [master’s degree]<sub>F</sub>

It is equally justified to lump the adnominal ER with the set of focus particles as with gradable predicates. More likely, the semantics of focus and the semantics of scalar constructions are not mutually exclusive, and one can imagine an ambitious project of unifying the semantics of scalar focus particles like *even* and *only* with gradable adjectives. I leave this for future research. The important point is that a scalar interpretation alone does not preclude a focus analysis.

#### 4 Conclusion

This paper has argued against various syntactic, semantic, pragmatic and interface objections to the FOCUS-SENSITIVE OPERATOR approach to the adnominal ER. While the adnominal ER was shown to pattern in these domains with other postnominal focus particles, some variation exists, such as sensitivity to truth conditions. This variation is consistent with variation of more well-studied focus particles at the verb or clause level (e.g. exclusive *only* vs. scalar additive *even*).

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