INTENSIFIERS
MEANING AND DISTRIBUTION

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Thesis submitted in partial fulfillment of the requirements for the
degree of Doctor of Philosophy in Linguistics

UCL

2014

Declaration

I, Harris Constantinou, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Στην οικογένειά μου

Abstract

This monograph explores the meaning and distribution of intensifiers (otherwise referred to as emphatic reflexives). Intensifiers are invariably stressed and anaphorically dependent on a nominal antecedent. Their use induces alternatives, an indication that their prosodic prominence results from some sort of information-structural marking. An intensifier can adjoin directly to its antecedent or to some clausal projection.

The first part of the monograph is concerned with the meaning of intensifiers. Depending on its distribution, an intensifier may take up to three radically different readings; adnominal, inclusive or exclusive. I first suggest that the common characteristic of the three readings is that they require the antecedent to be central against the induced alternative referents. Their interpretive differences lie in that the antecedent must be central in a different way. The rest of the meaning characteristics of each reading fall out from this basic variation. I discuss how syntax, semantics, information structure, general principles of the grammar (e.g. the Elsewhere condition) and extra-linguistic factors conspire to deliver these effects.

The second part of this monograph focuses on the distribution of the intensifier. I establish that the intensifier forms a syntactic dependency with its antecedent and propose a particular characterization of the relevant dependency that renders it quite similar to a binding relation. The final contribution of the thesis is concerned with the largely novel observation that the information-structural marking of the intensifier restricts its positioning with respect to other quantificational and information-structurally marked categories. I provide an account for the observed interactions in terms of an independently motivated condition of scope shift.

The thesis is mainly based on data from English and Dutch.

Table of Contents

Acknowledgements

Looking back, I would like to express my appreciation and gratitude to the following people. This thesis could not have come into existence without their contribution.

First and foremost, I wish to express my deepest thanks to my primary supervisor, Hans van de Koot. I consider myself privileged to have had the opportunity to collaborate with him. Hans has been a unique and constant source of inspiration, support and knowledge. He has always patiently discussed, challenged and developed ideas during our lively meetings. Though they lasted longer and longer in the course of the years, they never became any less lively. My work, including this thesis, has immensely benefited from Hans's detailed and challenging feedback. He has not only taught me how to do research in Linguistics, but also how to teach Linguistics. His advice and guidance on linguistic and non-linguistic issues has been invaluable.

I would also like to thank my secondary supervisor, Ad Neeleman, for contributing to the improvement of my ideas in various ways. Ad, together with Kriszta Szendroi, formed the committee for my upgrade from an MPhil to a PhD candidate. I appreciate their willingness to read my upgrade paper and extensively discuss it with me. I am also grateful to Nathan Klinedinst and Klaus Abels for discussions and advice related to the interpretation of intensifiers. I am further particularly indebted to Diana Mazzarella for spending hours and hours discussing with me issues related to the interpretation of intensifiers.

My special thanks to the following people for the grammaticality judgments in this thesis: Hans van de Koot (Dutch), Ad Neeleman (Dutch), Diana Mazzarella (Italian), Matthew Gotham (English), Patrick Elliott (English), Ana Gomes Ferreira (English), Elizabeth Eden (English), Sam Green (English), Nick Neasom (English), Matthew Reeve (English), Felicity Deamer (English), Alison Hall (English), Jonny McIntosh (English), Isabelle Needham-Didsbury (English), Irini Symeonidou (English) and Ezekiel Panitz (English).

I have been fortunate to spend the past few years in the UCL department of Linguistics, which has not only been an endless source of intellectual and personal development, but also a friendly environment. I would like to thank the following people for contributing in their own way to such a setting: Klaus Abels, Robyn Carston, Nathan Klinedinst, Ad Neeleman, Matthew Reeve, Kriszta Szendroi, Hans van de Koot, Nino Grillo, Alison Hall, Zoë Belk, Filippo Domaneschi, Natalia Cichosz, Akis

List of textual conventions and abbreviations

SMALL CAPS	Focus
<u>double underlining</u>	Topic
ITALICIZED SMALL CAPS	Contrastive Focus (CF)
<u>italicized double underlining</u>	Contrastive Topic (CT)
R	Relation
ID	Identity function
PER	Peripherality function
CCF	Crucial Contributory Factor
CSS	Condition on Scope Shift

1. Introduction

The present study deals with the interpretation and distribution of intensifiers in English and Dutch. Cross-linguistically, intensifiers are elements that are often partially or completely identical in form with a reflexive pronoun in the language (König et al 2013). English, for instance, is a case of complete morphological identity of the two expressions (e.g. *x-self*), whereas Dutch exemplifies an instance of partial identity (e.g. *zichzelf* vs *zelf*). Similarly to reflexive pronouns, intensifiers are intuitively understood to associate with some referential expression in the sentence, what I will be referring to as the *antecedent*.[1] Despite these similarities, there are good reasons for drawing a distinction between intensifiers and reflexives pronouns. In contrast to reflexive pronouns, intensifiers occur in non-argument positions, they are invariably stressed and their use always induces alternative propositions (or utterances) differing in the position held by the intensifier's antecedent in the asserted proposition. Quite naturally, the latter two characteristics have led previous analyses to the claim that intensifiers interact with Information Structure (IS), in some way. (1) - (3) exemplify the different uses of intensifiers in English.

   (1)   John *himself* will build his house.

   (2)   John will *himself* build his house.

   (3)   John will build his house *himself.*

The examples in (1) - (3) constitute a minimal triplet differing only with respect to the position of the intensifier. Depending on the positioning of *himself*, it takes a different interpretation. In (1) *himself* is found immediately next to its antecedent and, roughly, its use delivers the inference 'John *in person*, instead of someone else, will build his house'. In (2) *himself* is found immediately after the auxiliary verb and, again roughly, its use leads to the understanding that apart from its antecedent, *John*, some other referent will also build a house. Finally, in (3) *himself* is found after the direct object

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[1] The close connection between intensifiers and reflexive pronouns has been the subject of inquiry of various studies, either from a synchronic or a historical perspective. The current study is not concerned in an explicit way with this issue. The reader is directed to Gast (2006; chapters 7-8) for a synchronic analysis of the relation between intensifiers and reflexives, as well as a clear review of previous works.

and its use can either lead to the same additive inference as in (2), or imply that its antecedent will delegate the building of the house to some other referent.

These inferences become more prominent once (1) - (3) are inserted into appropriate contexts.

(4) A: John's brother will build his house next year.
     B: No, you're wrong. John himself will build his house next year.

(5) A: Bill will build his house next year.
     B: What a coincidence! John will himself build his house next year, even though he needs to raise some money first.
     (i.e. Bill will build his house next year and John will also build his house next year)

(6) A: John will have Bill build his house.
     B: No, John will build his house himself.
     (i.e. John will not delegate the building of his house to Bill)

On the basis of these diverse interpretations, in what follows I draw a distinction between the adnominal variant of the intensifier, as in (1) and (4B), the inclusive one, as in (2), (3) and (5B), and the exclusive one, as in (3) and (6B). This three-way distinction was first introduced in König and Siemund's work (König 1991, 2001; König and Siemund 1999; Siemund 2000) and adopted in the literature since then. Even though the terms introduced can lead to confusion, as the word 'adnominal' makes reference to the syntactic distribution of *himself* whereas the words 'inclusive' and 'exclusive' to its interpretation, I adopt them here for consistency.

Apart from their dissimilar interpretation, the three uses of the intensifier can be further distinguished on the basis of the choice of their antecedent. Whereas the adnominal intensifier can associate with any argument of the predicate, so long as it denotes an individual, the exclusive and inclusive intensifiers can only interact with subjects in English.[2] The sign '*' is used throughout to indicate ungrammaticality.

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[2] Interestingly, Dutch allows an exclusive intensifier to take an object as its antecedent, as we will see later on.

(7) John (ˊhimself) will meet Mary (ˊherself).

(8) John will (ˊhimself) meet Mary tomorrow (*herself).
     intended inclusive interpretations:
     a) Bill will meet Mary tomorrow. John will also meet Mary tomorrow.
     b) John will meet Angela tomorrow. John will also meet Mary tomorrow.

(9) John will speak to Mary tomorrow (ˊhimself) (*herself).
     intended exclusive interpretations:
     a) John will not delegate to someone else the speaking to Mary.
     b) Mary will not delegate the action of being spoken to by John to someone
     else.

Additionally, there is a contrast between the adnominal and the two adverbial
intensifiers (i.e. inclusive and exclusive) in terms of the type of their antecedent. Only
the latter can intensify quantificational arguments.

(10) *Some man himself will build his house.

(11) Some man will build his house *himself.* (possible interpretations: either
      exclusive or inclusive)

As we go along further differences between the three intensifiers will be discussed. But
setting aside the differences between them, there is no question that we are still talking
about different manifestations of the same phenomenon, as is evident from their
consistent stressing, the inducing of alternatives and morphological identity. In fact, in
the spirit of König and Siemund's work, chapters 3 and 4 argue that, contrary to initial
impressions, the three intensifiers also share a common semantic core. That is, they all
interact with antecedents that are understood to be central against the alternative
referents induced. A referent can be central in different ways though; it will be argued
that the readings that an intensifier can get are, to a large extent, dependent on the way
the antecedent *x* is understood to be central. *x*'s type of centrality is not random but
entirely due to the semantics of the intensifier it interacts with. I will suggest that the
two adverbial intensifiers, but not the adnominal one, are semantically specified as such
that force an event-related type of centrality on their antecedent. In particular, I claim

that the adnominal intensifier denotes the identity function ID operating from the domain of individuals D_e to the domain of individuals D_e, a proposal that is in the spirit of Eckardt's (2001) suggestion regarding the meaning of the German intensifier *selbst*.

(12) ID: $D_e \rightarrow D_e$

     ID $(\alpha) = \alpha$ for all $\alpha \in D_e$

The application of ID onto the intensifier's antecedent α will deliver a referent that is identical to α. This operation has no effect on the overall meaning of the sentence. The meaning contribution of the intensifier becomes substantial once it interacts with IS (hence its consistent stressing). I make the novel proposal that ID's interaction with IS results in the inducing of the family of peripherality functions PER, operating in the same domain as ID. The application of one instance of PER onto α will deliver a referent that is peripheral to α, accounting in this indirect way for the observed centrality effect associated with the intensifier's antecedent.

     With regard to the two adverbial intensifiers, I defend the idea that they are different from the adnominal in that the application of the identity function onto a nominal value is mediated by the event within the scope of the intensifier. This is cashed out semantically by assuming that the two adverbial intensifiers are manifestations of the identity function taking as its input not only an individual α but also the event τ in its immediate scope. The output however will be of a different kind, namely just an individual α, whose interpretation is identical to (input) α relativized to τ. On this view, the core-meaning of an adverbial intensifier is the identity function $ID_{adverbial}$ from the domain of individuals D_e and domain of events D_t to the domain of individuals D_e.

(13) $ID_{adverbial}$: $D_t D_e \rightarrow D_e$

     ID $(\tau,\alpha) = \alpha$ (for all $\alpha \in D_e$ and all $\tau \in D_t$)

It is further assumed that the IS marking of an adverbial intensifier results in the inducing of the family of alternative functions $PER_{adverbial}$. Each $PER_{adverbial-i}$ has the same characteristics as its alternative $ID_{adverbial}$ in that it operates from the domain of individuals D_e and domain of events D_t to the domain of individuals D_e. The difference is that now the output individual α is interpreted as peripheral to the input individual

relative to τ. The interpretive differences between the two adverbial intensifiers, exclusive and inclusive, are suggested to result from the different type of the input event. While the input event is interpreted generically in the inclusive case, in the exclusive case it is interpreted episodically.

The semantics of the intensifier is not the only factor influencing its interpretation. Given that each IS category has its own interpretive signature, the interpretation of one and the same intensifier (e.g. adnominal) is expected to differ in different circumstances. Chapters 3 and 4 also aim to investigate in more detail the influence of IS on the interpretation of intensifiers and eventually reach the conclusion that the adnominal intensifier can be both contrastively and non-contrastively marked, whereas the two adverbial intensifiers can only be contrastively marked. It is suggested that this discrepancy is due to the type of centrality imposed by each intensifier.

Apart from influencing the interpretation of intensifiers, IS also influences their distribution. In recent work, Neeleman & van de Koot (2008, 2012a) have shown that IS conditions interact with the theory of scope to rule out certain linearizations of focused and topical constituents appearing in the same sentence. Given the consistent IS-marking on the intensifier, Neeleman & van de Koot's proposals make predictions about the position of intensifiers with respect to other topics and foci in the sentence. In chapter 6, I use Dutch data to discuss these predictions and defend the claim that, when contrastively marked, the intensifier may or may not mark a domain of contrast (i.e. contrastive scope), depending on its syntactic position. While an adnominal intensifier simply renders its host DP IS-marked, an adverbial intensifier marks its contrastive scope in syntax. Crucially, this kind of scope-marking is identical to the way A'-moved arguments mark their scope. It is demonstrated that these assumptions capture non-trivial interactions between a contrastive intensifier and other contrastive expressions as well as other quantificational categories.

Apart from the semantic specification and IS-marking of intensifiers, there is one other major factor influencing its distribution, namely, syntax. Chapter 5 first entertains the possibility that the relation held between an intensifier and its antecedent is regulated by syntax. It is shown that this relation passes all the diagnostics to be qualified as a syntactic dependency and suggested that this type of dependency can be captured with minimal assumptions within the framework developed by Neeleman & van de Koot (2002; 2010). It is then argued that it *must* be the case that the relation

between an intensifier and its antecedent is established in syntax, as opposed to the possibility of it being established in semantics.

Before providing an outline of this monograph, a note is in order with regard to the choice of English and Dutch as the main sources for data. First and foremost, these are well-studied languages, in which there is no disagreement with regard to what counts as an intensifier and what does not. If a word is stressed, in non-argument position and looks like *x-self* or *zelf*, then it is an intensifier and a theory about its meaning and distribution is needed. In a language in which intensifiers are realized as different words, I think there is more risk of delineating the phenomenon of intensification inaccurately. Take for instance Mandarin Chinese. Tsai (2005) suggests that this language expresses intensification via *ziji*, which can be either adjoined to its antecedent or to some clausal projection, similarly to English and Dutch. On the other hand, Hole (2008) suggests that, in addition to *ziji*, Mandarin Chinese expresses intensification via two other forms, *benshen* and *benren*. I am unaware of such discrepancies in the literature of English and Dutch intensification.

The choice of English and Dutch extends to other reasons, too. English is cross-linguistically special in that it distributionally distinguishes between the different readings of the intensifier. As discussed with reference to examples (1) - (6), when the intensifier is adjoined to its antecedent, it can only take the adnominal interpretation, when it is found immediately after the auxiliary, it can only take the inclusive reading, while the exclusive interpretation is only compatible with a post-verbal position. This neat distributional distinction will prove important when discussing the interpretation of intensifiers in chapters 3 and 4. Dutch is much more flexible compared to English in regards to the intensifier's distribution. *Zelf* can occur pretty much anywhere in the sentence. This is shown in (14) (all possibilities in brackets). Note that, contrary to its English counterpart, *zelf* is not specified with the ɸ-features of number, gender and person. Thus, either *Jan* or *Marie* or *the book* are potential antecedents of the intensifier in (14), so long as certain requirements are met (see chapter 5).

(14) Jan (*zelf*)   heeft (*zelf*)   Marie (*zelf*)   het boek (*zelf*)   gegeven.
      John (self)   has (self)   Mary (self)   the book (self)   given.
      possible interpretation: 'John himself has given Mary the book.'

The fact that *zelf* can, in principle, occur anywhere in the sentence allows us to investigate how other factors influence its distribution, most especially its IS-marking.

This dissertation is organized as follows: Part I is devoted to the interpretation of intensifiers and consists of three chapters. Chapter 2 critically overviews previous analyses on the interpretation of intensifiers and prepares the ground for the proposal that follows. Chapter 3 introduces the approach to be adopted in analyzing the meaning of all three intensifiers and then focuses on the interpretation of the adnominal one. Chapter 4 constitutes the proposal for the meaning of the two adverbial intensifiers, the exclusive and inclusive. Chapter 4 also puts the final touches on the proposal presented in chapter 3 regarding the meaning of the adnominal intensifier. Part II is dedicated to the distribution of intensifiers and comprises two chapters. Chapter 5 discusses how syntax influences the distribution of intensifiers, while chapter 6 examines how IS enters the picture in restricting their distribution. Chapter 7 concludes this dissertation.

Part I: Interpretation

2. Previous analyses on the interpretation of intensifiers

2.1. Introduction

This chapter has a twofold purpose. On the one hand, it aims to provide a critical review of previous approaches to the different interpretative contributions of the intensifier, while on the other, it introduces some basic notions that will be useful for the analysis that follows in chapters 3 and 4. In order to avoid repetition of material that is provided elsewhere, most notably in Siemund (2000) and Gast (2006), I will resist offering a detailed report of all previous analyses. Instead, I will keep to a fairly simple synopsis of each account (while referring the interested reader to more extended reviews or the works themselves) and devote more space to exposing their limitations.

On the face of it, examples such as (1) - (3) below, repeated from chapter 1, suggest that one could try to link the interpretation of the intensifier to its position (recall from chapter 1 that each positional variant is tied to a different meaning). Ideally speaking, we would like to capture all different readings of the intensifier using a single lexical entry.[3] Given the same morphological realization of the different readings, this is a matter of theoretical parsimony. Despite this, the literature is separated into two camps. The first line of reasoning primarily seeks to explain the fact that all readings are realized through morphologically identical forms by maintaining that they all express the same semantics. The different readings result from the different sentential or discourse contexts the intensifier occurs in. Alternatively, it can be assumed that each of the three readings is in fact an expression of somewhat different semantics, which is compatible with only a particular position in the sentence. Of course this latter group of researchers has little to say about the morphological identity of the items expressing these different readings.

(1)   John himself will build his house. (adnominal)

(2)   John will himself build a house. (inclusive)

(3)   John will build his house himself. (inclusive or exclusive)

The chapter is split according to the division found in the literature. The first section (2.2) discusses the three main representatives of the "multiple lexical entry" camp. This

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[3] This is also suggested by Reinhart's (2002) 'Lexicon Uniformity Principle'.

is followed by section 2.3, which discusses the "single lexical entry" approaches. Section 2.4 concludes the discussion.

2.2. Multiple lexical entries

2.2.1. Scalar analyses

A large portion of the literature on the interpretation of the intensifier consists of scalar analyses (Edmondson & Plank 1978; Plank 1979; Primus 1992, Kibrik & Bogdanova 1995, Lyuticova 1999). The inclination to analyze the intensifier as a scalar item of some sort can be attributed to the fact that in many languages it is homophonous to the scalar focus particle *even* (i.e. German: *selbst*, French: *meme*, Finnish: itse). An extended overview of the various scalar analyses found in the literature can be found in Siemund (2000) and Gast (2006). Here we will content ourselves with a brief overview of how Edmondson & Plank (1978) and Plank (1979) approach the issue at hand.

Edmondson & Plank (1978) begin with the distinction between two versions of the intensifier; the adnominal, as in (1), and the adverbial, as in (2) and (3). They call the former instance *himself₁* and the latter *himself₂*. The function of *himself₁* in the sentence is to place the referent denoted by the nominal it modifies in the highest position on a scale of *remarkability*. The placement of a referent on this highest position is judged according to the situation denoted by the predication. The antecedent of the intensifier must be judged by the speaker as the least expected or most remarkable referent participating in the event denoted by the predicate. For (1) this means that *John* is judged to be the most unlikely person to have built his house, and can therefore be felicitously intensified by *himself₁*. This story does make sense given the current view of the world (i.e. it is unlikely for someone to build their own house). It becomes problematic though when *John* in (1) is replaced by *the builder* (as in (4B)), who is undoubtedly the least remarkable or most expected person for building a house.

(4)   A: The builder's assistant built John's house.
       B: No, the builder himself built John's house.

This point is corroborated by König (2001), who observes that sentences with *himself₁* can be introduced by *as everyone expected* without contradiction. This is shown in (5).

(5)   As everyone expected, the queen herself opened the Olympics.

With respect to *himself₂*, Edmondson and Plank propose that its function in the sentence is to place the referent it interacts with at the highest position on a scale of *direct involvement* in an event (given that one can participate less or more in an event). The use of this intensifier indicates high degree of participation or involvement in the event denoted by the predicate. It has to be noted that this analysis is only intended for the exclusive reading of the intensifier. So for the exclusive interpretation of the example in (3), the intensifier characterizes its antecedent, *John*, as the referent that is maximally involved in the event of building his house. As the authors put it, "It is when agency, involvement or causation is in question [...] that *himself₂* typically appears." (p. 406). This analysis goes a long way towards describing our intuitions. It is true that this reading has something to do with the participation or direct involvement of the intensifier's antecedent in the event denoted by the predicate.

(6)   A: Bill built John's house.
       B: No, John built it himself.

(6) is an instance in which the agency of *himself₂*'s antecedent is in question. *Bill* is presented in (6A) as a competing agent of the event in discussion and, as correctly predicted by Edmondson and Plank's analysis, *himself₂* can felicitously appear in (6B); confirming thus the agency of its antecedent by excluding other possible agents. Notice that appealing to the scale of *direct* involvement, and not just a scale of involvement, is important for explaining one other feature of the exclusive reading in (6B), namely that the antecedent of the intensifier must have some special relation to the event in discussion. In (6) the event in discussion concerns the building of *John*'s house. This is important because, as shown below, removing any reference that relates *John* to the event, renders the use of the exclusive infelicitous. (The sign '#' is used throughout to indicate that a construction is grammatical but inappropriate in the given context).

(7)   A: Bill built this house.
       B: # No, John built it himself.

There has been some criticism in the literature (e.g. Gast 2006) against Edmondson & Plank (1978) as to whether the proposed analysis can capture this property of the exclusive intensifier. I believe that the criticism is somewhat unfair and that Edmondson and Plank were well aware of this property. As shown in (6) and (7), the event in discussion must be interpreted as to be related in some way to the intensifier's antecedent. In particular, in (6A) it is asserted that *Bill* is the agent of the building of a house and that the house belongs to *John*. In other words, *John* is involved in some sense in this event, but *not* directly. The use of the intensifier in (6B) states that *John* is maximally involved in the event in the sense that he is both the person related to this event and the agent.

Apart from the context of (6A), *himself₂* can be used as a response in another context, where its antecedent is participating in an event with another referent. This is shown in (8).

(8)   A: John built this house with Bill.
      B: No, John built it himself.

It is true that the two instances of the intensifier, in (6B) and (8B), have a different meaning. In (6B) *himself* can mean something like 'the event of building was not delegated to *Bill*', whereas in (8B) it means something like 'the event of building took place without *Bill*'s contribution'. The point here however is that we are still talking about *himself₂*. Aside from the fact that both interpretations only arise with an adverbial (and not adnominal) positioning of the intensifier, they are both compatible with the authors' analysis of *himself₂*, which is about participation in the event. The question then is how does the direct involvement of *John* in (8B) differ from that in (8A)? In (8A) *John* is the agent of building the house. At the same time, there is some part of the building of the house that is carried out by the referent in the comitative PP, *Bill*. The sentence is understood as *John* and *Bill* sharing the building of the house. It is therefore reasonable to say that *John* is not involved in the part of the building of the house that corresponds to *Bill*. However, the scale invoked by Edmondson and Plank does not merely refer to involvement but instead *direct* involvement. As discussed previously, this difference proved crucial in explaining the non-delegation reading of *himself₂*. The question then is whether *John* is understood to be involved in some sense to the part of the building that *Bill* did, but just not directly. The answer to this seems to be a positive

one. This is because *John* is understood to be responsible for or benefited from the event as a whole, including the part of the building that corresponds to *Bill*. The mere fact that *Bill* is interpreted as a helper confirms this. If *John* did not hold a responsibility or beneficiary relation with respect to the part of the building that *Bill* carries out, *Bill* would not be a helper but a referent who carries out an action for his own sake.

The idea of analysing *himself₂*, or in our terms the intensifier with the exclusive reading, as a scaling adverb with respect to *direct involvement* is taken up by Plank (1979) towards an account of the inclusive reading (which had been left unaccounted for in Edmondson & Plank (1978)). Briefly, Plank (1979) suggests that the inclusive reading also rates the subject referent as the most directly involved referent in the event being considered. This reasoning made sense in the case of the exclusive reading, but it is certainly at odds with our intuitions about the inclusive reading's meaning contribution. In (9B) for instance, *John* is not felt to be more directly involved in the event under consideration compared to (9B').

(9)   A: Bill gave a book to Mary.
      B: John gave a book to Mary himself (but he didn't really want to).
      B': John also gave a book to Mary (but he didn't really want to).

Even if we assume, for the sake of discussion, that the inclusive reading is simply *compatible* with the referent being most directly involved in the event, and does not *render* its antecedent to be understood as most directly involved (i.e. it does not emphasize its involvement but only interacts with the referent who is already most directly involved), the presence of the intensifier should be completely redundant. Moreover, the event under consideration involves one more [+human] referent, *Mary*. *John* and *Mary* only differ with respect to their thematic role in the event. The former is an agent and the latter a beneficiary. As already noted in chapter 1, the inclusive reading is subject oriented, and hence *Mary* cannot assume antecedenthood. Plank's theory leads one to expect however that *Mary* should be able to assume this role because she is equally involved in the event. Of course we could always fall back to a stipulation that says that this reading is subject-oriented, but this would be an unsatisfactory move from an explanatory perspective.

I would like to end this section with another point, already raised by Siemund (2000). Contrary to the exclusive reading, the inclusive one can without difficulty be combined with stative predicates, as illustrated below.

(10) A: Bill knows the answer to this problem.
     B: John knows the answer himself, but it was pretty hard to find.

The preservation of the idea of analyzing the inclusive reading in terms of a scale of involvement now becomes almost unfeasible. As Siemund (2000) puts it, "the idea of direct involvement is problematic in itself because involvement, let alone involvement to a higher or lower degree, in a stative situation is, intuitively speaking, not plausible." (p. 218). Plank is aware of this and suggests that in stative situations referents are understood to be ranked highest in an involvement scale due to the knowledge or experience acquired about these situations. In the case of knowing the answer to a problem for instance, as in (10B), *John* can be seen as a specialist of solving problems (e.g. he is the best student in class). Becoming an expert in answering problems requires prior experience in the subject, and hence *John* can be understood to be the most directly involved referent in the gathering of this experience or knowledge. Admittedly, this is pretty close to the intuitions reported in the literature (e.g. Siemund 2000) with regard to the meaning contribution of this reading (see chapter 1) and presumably it would have been more sensible to follow such an analysis for all types of predicates (and not just statives). Nevertheless, the inconsistency of a scalar approach with respect to explaining the meaning contribution of all instances of the intensifier combined with the limited insights it provides raise serious doubts over its correctness.

2.2.2.   Centralizing focus particles

In a series of articles/books (König 1991, 2001; König and Siemund 1999; Siemund 2000) König and Siemund put forward the view that intensifiers should be analyzed as instances of focus particles (e.g. only, even, also).[4] Their motivation for this lies in the following properties, which are shared by intensifiers and focus particles.

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[4] See Gast (2006) for a more detailed review of König and Siemund's approach as well as argumentation against it. See also Eckardt (2001) for criticism of König and Siemund's account.

(11)   a. High degree of positional flexibility in the sentence.

        b. Multiple occurrence in the sentence is possible.

        c. Intensifiers and focus particles are frequently homophonous.

They distinguish between three basic instances of the intensifier, namely the adnominal, exclusive and inclusive. The common denominator of these is the 'centrality' effect (see Baker 1995 for a similar notion, namely of *discourse prominence*) imposed on the antecedent. Under this view, intensifiers are elements that oppose their antecedent with alternative referents. Moreover, the antecedent is characterized as central with respect to the alternative referents. But each instance of the intensifier characterizes its antecedent as central in a different way. (12) - (14) outline the meaning contribution of each instance of the intensifier.[5]

(12)   Adnominal intensifiers structure a set into a central element X and peripheral
        elements Y. (Siemund 2000: 121)

(13)   Adverbial exclusive intensifiers structure a set of possible agents in a situation S
        into a central agent X and oppose it to peripheral agents Y. (Siemund 2000:
        123)

(14)   Adverbial inclusive intensifiers structure a set of elements with a common
        property P into a central representative X of P and peripheral representatives Y
        of P. (Siemund 2000: 122)

(12) comes pretty close to our intuitions about the meaning contribution of the adnominal reading. Its use in (15B) requires its antecedent, *the director*, to be central with respect to alternative referents (e.g. the director's secretary in (15A)). These are evoked because the intensifier is a focus particle scoping over the antecedent. In the

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[5] This approach may also be subsumed under the group of scalar analyses, along with Edmondson & Plank (1978) and Plank (1979). After all, the notion of centrality is scalar in the sense that the alternative elements contained in a set occupy different points on a centrality/peripherality scale. The difference of this approach and the scalar ones reviewed in the previous section lies in the *criterion* against which the different elements are ordered. Whereas König and Siemund make use of the centrality scale, Edmondson and Plank make use of remarkability, expectancy and involvement scales. I do not include König and Siemund's approach to the scalar ones because, traditionally, scalarity is viewed as to be associated with remarkability and expectancy.

case of (15B), the centrality of the director (and peripherality of the director's secretary) is defined in terms of the world knowledge that we have about the hierarchy of a company. The director is more central with respect to his/her secretary against such a hierarchical criterion. This is the reason why (16B) sounds odd (i.e. it goes against standard assumptions about the hierarchical structure of a company). Siemund (2000) provides a list of instantiations of the centre-periphery relation, which I will come back to in chapter 3 in an attempt to further clarify the notion of 'centrality'. What is important for our purposes here is the way the adnominal intensifier centralizes its antecedent, and how this differs from the exclusive and inclusive ones.

(15)   A: The director's secretary will write the speech.

       B: No, the director himself will write it.

(16)   A: The director will write the speech.

       # B: No, the director's secretary herself will write it.

An instance of the exclusive intensifier is repeated from (3) below.

(17)   A: Bill will build John's house.

       B: John will build his house himself. (exclusive)

Based on (13), (17B)'s agent is analysed as being central compared to other agents with respect to the situation denoted by the predication (i.e. building his house). As mentioned in section 2.2.1 (and discussed in more detail in chapter 4), the exclusive intensifier in its non-delegation reading requires its antecedent to be interpreted as being related in some special way to the event under consideration, hence the possessive relation between the intensifier's antecedent and the house in (17). The notion of 'centrality', which is fundamental to König and Siemund's approach, can explain the existence of such relation. This is because for one agent to be central with respect to other agents against a particular event he/she must have a special association to it, which is crucially not shared by the alternative agents. Otherwise, all agents would be regarded as 'equal' with respect to the event under consideration. It seems then that the relation holding between *John* and the building of the house in (17) is simply a necessary consequence of the meaning of the exclusive intensifier as outlined in (13).

       Consider now the example in (18).

(18)   A: John built the house with Bill.

   B: No, John built it himself.

(18) seems to be counterevidence to the definition in (13) regarding the meaning contribution of this instance of the intensifier, which only makes reference to alternative *agents*. The standard view on agency dictates that agency is tied to subjecthood. But it is clear that the antecedent of the intensifier in (18B) contrasts with *Bill*, a comitative referent. We can still get away with this though when considering the (thematic) role held by *Bill*. Intuitively speaking, *Bill* is interpreted as having a similar role to the subject of the sentence, that of a causer. Even so, (13) is problematic in view of the following Dutch example, in which the exclusive intensifier, *zelf*, takes the direct object, *Mary*, as its antecedent. Notice that the intensifier has a non-delegation reading, as in (17B). Being the direct object, *Mary* fulfills the thematic role of a theme. The context is set up in such a way as to facilitate a non-delegation reading on the intensifier. Its use implies that *Mary* has not delegated the undergoing of the event of being spoken to to an alternative referent, who is also a theme.

(19)   *Context: I had been trying to get Mary, the head of the Research Department, to come to my office to discuss progress on the new prototype. But every time I emailed her with some question, she claimed to be busy and sent over an assistant to discuss the matter with me. But yesterday, after an email expressing deep reservations about RD's most recent budget overrun...*

...heb	ik_1	$Marie_2$	uiteindelijk	$zelf_{(\#1/2)}$	kunnen	spreken.
have	*I*	*Mary*	*ultimately*	*self*	*can*	*speak*

'Ultimately, I have spoken to Mary herself.'

We may conclude, then, that the restriction to agents in (13) does not seem appropriate and that further investigation of the exclusive intensifier is called for.

Moving on to the inclusive reading, the definition given in (14) comes, to my judgement, close to the view expressed by Plank (1979) for stative predicates. To explicate (14) further, take the example below.

(20)   A: Bill has raised three kids.

   B: John has himself raised three kids, but it was not easy.

As opposed to the exclusive instance, in which the alternatives consist of two different descriptions of the same event, (20) consists of two separate events, which are of the same type (i.e. they denote similar situations). Both (20A) and (20B) denote an event of raising three kids. *John* is considered to be central with respect to the common properties of these two events, namely of raising three kids. The centrality of *John* with respect to raising kids may be a result of *John*'s prior experience of raising kids, something that would give *John* special knowledge about such situations. Even though this analysis may be in accordance to our intuitions, centrality fails to make any predictions regarding the (in)felicity of a sentence containing the inclusive intensifier. For example, when native speakers are given (20) in an out of the blue context, in which *John*'s particular expertise with raising kids is not stated, the use of the intensifier remains felicitous. It may be the case that native speakers accommodate this extra contextual assumption. A future corpus study that checks the possible contexts that this reading is found in may prove to be particularly enlightening on this issue. For now, we can only content ourselves with the description given by Siemund (2000) (see (14)).

In terms of the inclusive reading's meaning contribution, Siemund (2000) points out some further characteristics, which will be discussed in more detail in chapter 4. The most obvious one is the additive effect implied by the use of this reading. An indication of this is the fact that the intensifier in (20B) can be replaced with the additive focus particle *too* or *also*, without a significant loss of meaning. Moreover, Siemund (2000) points out that this instance of the intensifier makes the sentence it is found in extremely context dependent in the sense that it requires another sentence denoting an event of the same type to be salient. Indeed, the intensifier in (20B) would not take the inclusive reading if (20A), or a sentence denoting a similar event of raising kids, was removed from discourse. Note that these last two characteristics of the inclusive intensifier are shared with additive focus particles, as expected by König and Siemund.

König and Siemund's approach, as outlined above, seems to be a good approximation of the meaning contribution of each instance of the intensifier. As Gast (2006) points out however, the assumption that the intensifier belongs to the class of focus particles is problematic. Below I outline Gast's (2006) considerations, which had already been noticed by Siemund himself (2000).

(21)   a.   Intensifiers can inflect for person, number and gender but not focus particles.

      b.   Most focus particles can interact with various categories (e.g. DP, VP etc). Intensifiers are restricted to an interaction with DPs.

      c.   Focus particles can occur in pre-focal position but intensifiers can only occur in post-focal position.[6]

We should add to these the fact that intensifiers are obligatorily stressed, whereas focus particles can, and usually do, remain unstressed. A theory of intensification along the lines proposed by König and Siemund is of course in need of explaining why the intensifier deviates from the norm set by focus particles, if it is a focus particle itself.

2.2.3.   Denoting the identity function or the ASSIST adverb

In an attempt to explain why the intensifier consistently evokes a set of alternatives to its associated referent, Eckardt (2001) proposes that it is the intensifier's interaction with focus, and not a property of the intensifier itself (see focus particle analysis in previous section). In particular, Eckardt, who follows Moravcsik (1972), suggests that the core meaning contribution of the intensifier is the identity function ID from the domain of objects D_e to the domain of objects D_e.

(22)   ID: $D_e \rightarrow D_e$

     ID $(\alpha) = \alpha$ for all $\alpha \in D_e$

According to this analysis, the intensifier is merely lexically specified with ID, which takes as its input value a nominal constituent *x*, the antecedent, and maps it onto the same output value. (22) exemplifies this operation for the DP *John himself*.

(23)   ⟦[John] himself]⟧   = ID (⟦John⟧) = ⟦John⟧

Adopting the assumption that the intensifier denotes ID is equivalent to saying that its core meaning contribution to the sentence amounts to nil. As radical as this may seem, it

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[6] This certainly applies to the exclusive focus particle *only* and additive focus particle *also*. In (a) and (b), *only* and *also* associate with an element that follows, *John* and *Mary* respectively.

a) Only JOHN met Mary.
b) John also met MARY.

makes perfect sense from an interpretative perspective; the DP *John himself* does not have a different interpretation from *John*. Moreover, Eckardt's proposal correctly predicts obligatory stress on the intensifier. As is the case with every other focused constituent, focus evokes alternatives, contributing in this way to the meaning of the sentence. A crucial point of this account is the assumption that the intensifier is in *narrow* focus. It follows from this that the alternatives will only differ from the asserted one with respect to the value provided by the intensifier (i.e. ID). Following standard assumptions of the theory of Information Structure, alternative values must be of the same semantic type. Since ID is a function operating on the domain of individuals, its alternatives will also be functions operating on the same domain. These can be of the type BROTHER.OF or SECRETARY.OF, which are applied onto the same referent that ID does (because this referent remains in the background and is thus present in all alternatives). For an expression like *John himself*, the alternatives will thus be of the form *brother of John* or *secretary of John*, depending on the context.

The type of centrality effect imposed by the adnominal variant on its antecedent is claimed to fall out instantly from this approach. This is because the induced set of alternative referents will always consist of an element x, the intensifier's antecedent, and other elements that are defined in terms of x (via the application of the alternative functions onto x).

This exceptionally simple semantics is therefore very suitable for the adnominal instance of the intensifier. Eckardt suggests that pretty much the same semantics can account for most adverbial cases too. A case in point is the non-delegation reading we have seen previously. Below is an instance of this in German (example provided by Eckardt 2001 (p. 399); capitals indicate stress).

(24) Emil hat   den   Kunchen   SELBST   gebacken.
      Emil has   the   cake   himself   baked.
      'Emil baked the cake by himself.'

According to Eckardt, (24) is understood as saying that it is Emil and not the baker, Emil's wife or Emil's cook who baked the cake. "Importantly, the entourage of Emil in this case is determined with respect to the activity of cake-baking. In contrast to other examples, Emil is not required to have a world-given group of people that cluster around him (un-like kings, presidents, or popes), because the verb in question already

offers hints as to what kind of "instead-of" is intended" (Eckardt 2001: 399). With *other examples*, Eckardt refers to examples with the adnominal intensifier. Indeed, when it comes to the adnominal intensifier the alternative referents must already be known to form the entourage of the intensified referent.

The author tries to push the point that it is the context that determines the type of alternative functions (e.g. WIFE.OF, COOK.OF) of the intensifier; the position of the intensifier does not play any role because adnominal and adverbial instances of the intensifier denote the same semantics. In (24), the alternative referents result from an evaluation of the rest of the predication (i.e. baking the cake). This predicts that the same kind of entourage should be accessible in the adnominal instance of the intensifier. This prediction is confirmed by the example below.

(25)   Emil   SELBST   het   den   Kunchen   gebacken
      Emil   *himself*   *has*   *the*   *cake*   *baked*
      (und   nict   der   Bäcker,   Emils   Frau   oder   sein   Kock)
      (and   *not*   *the*   *baker,*   *Emil's*   *wife*   *or*   *his*   *cook)*

Nevertheless, I believe that Eckardt's analysis regarding the example in (25) is incorrect. My main concern has to do with the idea that the alternative referents induced by the adnominal intensifier are defined with respect to the rest of the predication. This suggestion is in stark contrast to the recurring intuition reported in the literature (e.g. König 1991; Siemund 2000; Gast 2006) that the adnominal intensifier is interpreted DP-internally and does not make reference to any material outside the DP. This implies that the alternative referents induced in the adnominal instance can be literally anything, as long as world-knowledge or context allows for the construction of an appropriate entourage. Put differently, the alternative peripheral referents need not be defined in terms of the predication. Indeed, Hole (2002) provides the following example, which demonstrates that the adnominal intensifier, but not the adverbial, remains fine when found in a stative type of predication.

(26)   Die Berge (selbst) teilen das Land (#?selbst) in zwei Teile.
      'The mountains (themselves) divide the country into two parts (#themselves).'

In fact, every researcher would agree that the adnominal variant imposes no restrictions on the type of predication it can occur in. On the other hand, the adverbial variant, with the reading of (24), seems to prefer a causative type of predicate (Siemund 2000). If it were the case that the two variants make reference to the predication in order to form the antecedent's entourage, then the question remains as to why sometimes an appropriate entourage can be formed in the adnominal instance that is unavailable for the adverbial one. On the other hand, if the adnominal instance does not define its antecedent's entourage with respect to the predication, (26), and generally the no-restrictions-on-type-of-predication observation, immediately find an explanation.[7] To conclude this point, even though Eckardt's semantics account for various facts, mainly having to do with the adnominal use, the approach fails to account for at least one prominent adverbial reading of the intensifier reported in the literature, the non-delegation one. Similar difficulties arise with respect to the other exclusive reading of the intensifier, the *without-help* one. This time however, Eckardt recognizes the difficulties resulting from assuming a unified semantics and stipulates a different semantics for this instance. In particular, she provides the examples below indicating that this reading cannot occur in the adnominal position (see Eckardt 2001: 401).

(27) * Adrian   SELBST   fand   den   Weg   zum   Bahnhof
         Adrian   *himself*   *found*   *the*   *way*   *to*   *the station*

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[7] Of course the question remains as to why the adnominal and adverbial instances are compatible with the same alternative referents in (24) and (25). I believe that this is due to the fact that the type of alternative sentences that the adverbial instance in (24) induces is a subset of the possible alternative sentences that the adnominal instance does in (25). In other words, the intensifier in (24) induces the kind of sentences that create a suitable environment for the felicitous use of an adnominal intensifier too. Notice here that I refer to the inducing of the type of *environment* and not the type of *referents*. Recall from previous sections that the non-delegation reading, which is the one found in (24), requires its antecedent to be related in some way to the action denoted by the predicate. Usually this relation is made explicit in the context prior to the utterance containing the intensifier. Eckardt does not provide such context but presumably the cake is interpreted as belonging to the intensifier's antencedent, Emil (where 'belonging to' can be as vague as the notion of possession). Put differently, Emil is in some way interested in the baking of the cake. The sentence below can thus function as an alternative of (24).

a) The baker baked Emil's cake.

Now recall Siemund's (2000) claim about the way that the adnominal reading characterises its antecedent. The antecedent is understood to be central with respect to some other referent. This type of centrality is pretty flexible. For instance, *x* can be central with respect to *y* if *x* controls *y* (e.g. the boss controls in some respects his/her secretary). Going back to the possible alternative of (24) in (a), it can be seen that the baker can be easily construed as being under the service/control of Emil for the purpose of baking Emil's cake (i.e. the baker is baking the cake for the sake of Emil). What this means is that the baker can also function as a peripheral alternative to Emil in the way required by the adnominal instance of the intensifier in (25).

'Adrian himself found the way to the station.'

(* = no without-help reading)

(28) Adrian fand den Weg zum Bahnhof SELBST
Adrian found the way to the station himself
'Adrian found the way to the station by himself .'

(= without-help reading preferred)

As the author points out, (28), but not (27), in its most natural reading refers to the fact that *Adrian* found his way without the help of others. She thus proposes an extra variant of the German intensifier *selbst* that has the general format of adverbs and encodes the absence of any referent standing in an assistive relation to the event in question. The semantics of this variant is provided in (29).[8]

(29) $[\![himself_{assistive}]\!] = \lambda e \neg \exists x(ASSIST(x, e))$

It is assumed "that ASSIST is a thematic relation that relates persons to an event in which they are not the driving agent themselves but assist the agent in performing a task." (Eckardt 2001: 402). This variant is not available in the adnominal position for reasons of type mismatch. That is, the notion of assistance is tied to an event and cannot be interpreted with respect to an individual. But this means that the alternative referents are defined in terms of the event in question (i.e. the alternative referents are helpers). This is in sharp contradiction to the author's analysis of the non-delegation reading, where alternatives must also be defined in terms of the event in question, but which can allegedly arise with both the adnominal and the adverbial variants. Arguably, the difference between the two exclusive readings only concerns the relation holding between the alternative referents and the event. In the non-delegation reading the alternative referent may be the agent-causer of the resultant state (see (30A)), whereas in the without-help reading the alternative referent is again a causer of the resultant state, but merged in a comitative PP (see (31A)).

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[8] For the sake of uniformity, in (29) I change the original semantics provided by Eckardt (2001) by substituting the German intensifier *selbst* with the English intensifier *himself*.

(30) A: Bill built John's house.

      B: No, John built it himself. (= non-delegation reading)

(31) A: John built his house with Bill.

      B: No, John built it himself. (= without-help reading)

Considering that both readings define the alternative referents in terms of the event in question, it remains mysterious as to why the type mismatch mentioned above only applies to the without-help reading.

Independently from this, I believe that the semantics provided for the without-help reading defeat the main point of Eckardt's approach. The semantics provided for the rest of the readings (i.e. ID (x)) can neatly explain why the intensifier is always stressed. This is because it is essentially meaningless and requires the inducing of alternatives to deliver an interpretive effect. The departure from this semantics leaves unexplained why the intensifier expressing the without-help reading is also consistently stressed and, thus, why alternatives are induced.

2.3. One lexical entry (denoting the identity function)

Hole (2002, 2008) attempts to address the problems raised by Eckardt's (2001) treatment of the without-help reading. He suggests that the relevant instance of the intensifier (which is also responsible for the non-delegation reading) also denotes the identity function (in line with the intensifier responsible for the rest of the readings). What distinguishes the without-help and non-delegation readings from the rest is the element the identity function ID takes as input. Whereas ID takes as input a nominal constituent in the adnominal case, the without-help and non-delegation readings are cases in which ID takes as input the agent relation. Hole assumes the framework developed by Kratzer (1996) in which the subject of a sentence is not an argument of the main predicate but instead merged in the specifier position of a predicate, so called 'Voice', that introduces the agent relation. The two predicates are then conjoined by a mechanism called 'event identification'.

In the same way that Eckardt assumes that the interpretative contribution of the intensifier is a result of the inducing of focus alternatives, Hole assumes that the without-help and non-delegation readings of the intensifier result from the inducing of focus alternatives that comprise sentences in which alternative functions (to ID) take the

agentive relation as their input but deliver a relation different from the agentive one. A question arises at this point as to what kind of functions are these supposed to be; Hole (2002; 2008) does not offer a single example of these functions. Depending on the context, the alternative relations resulting from the inducing of alternative functions (to ID) applied onto the Voice head can be of the type "*x* has *y* do *e*" (causer relation) or "*y* did *e* for *x*" (beneficiary relation). According to the author (2002: 145), the presence of the intensifier in a sentence like *John baked the cake himself* asserts (32a) and evokes (32b).

(32) a.   John REL$_{\text{SUBJECT/AGENT}}$ the-baking-of-the-cake
      b.   John REL$_{\text{NON-SUBJECT/NON-AGENT}}$ the-baking-of-the-cake

This leads to the expectation that a sentence containing this instance of the intensifier and its alternatives should have a different agent. However, as we have seen, there are also examples in which the intensified agent and the agent in the alternatives denote the same referent. I repeat one example below, in which both the sentence with the intensifier in (33B) and its alternative in (33A) contain the same agent, *John*.

(33) A: John built his house with Bill's help.
      B: No, John built it himself. (= without-help reading)

Since Hole suggests that there are no restrictions to the type of involvement of the antecedent *x* in the alternative propositions (apart from *x* being the agent), we expect *x* to be able to be a comitative referent (among other possible types of event involvement) in the alternative proposition.

(34) A: John built his house with Bill's help.
      B: # No, Bill built it himself.

The impossibility of this example indicates that the antecedent referent *x* must be involved in the alternative event in some particular way; not just any alternative involvement of *x* would do, contrary to the predictions of Hole (2002; 2008).

In addition to this problem, further issues arise with respect to the distribution of the without-help and non-delegation readings, which cannot be realized using the

adnominal intensifier. As already mentioned, the author adopts Kratzer (1996), who suggests that, syntactically, the agent relation resides in the functional projection 'Voice Phrase' (which is above the VP), as its head.[9] In so far as the intensifier must surface in a position adjoined to a projection of this head, Hole's proposal might be able to explain why these readings cannot be found with the adnominal intensifier. However, the intensifier realizing the exclusive reading can also appear in multiple positions in the VP in languages such as German or Dutch. Although these facts are not discussed by Hole, it would seem that the only way in which they could be accommodated on his proposal is by assuming a lowering operation.[10]

Furthermore, a proposal along these lines cannot explain why in languages such as German and Dutch these readings have a freer distribution in the verbal projection compared to English, in which they are restricted post-verbally.[11]

Finally, since the agent relation consistently interacts with an external argument, this account predicts that the non-delegation reading should never arise with any other argument (e.g. direct object). But we have already seen in (19), repeated below, that it can arise with a VP-internal theme.

(35) *Context: I had been trying to get Mary, the head of the Research Department, to come to my office to discuss progress on the new prototype. But every time I emailed her with some question, she claimed to be busy and sent over an assistant to discuss the matter with me. But yesterday, after an email expressing deep reservations about RD's most recent budget overrun...*

...heb	ik$_1$	Marie$_2$	uiteindelijk	zelf$_{(\#1/2)}$	kunnen	spreken.
have	*I*	*Mary*	*ultimately*	*self*	*can*	*speak*

'Ultimately, I have spoken to Mary herself.'

I conclude from the above discussion that Hole's proposal falls short, both theoretically and empirically, in accounting for the without-help and non-delegation readings. Things get worse if we consider the fact that the author does not even begin to discuss how this approach could capture the inclusive reading, which is also only found in adverbial positions.

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[9] In order to avoid repetition of previous works, I will not offer more details of Hole's (2002; 2008) approach. The interested reader is referred to Gast (2006) for a more detailed review and further criticism.
[10] I will come back to a more detailed criticism of a movement approach in section 5.2.
[11] In fact, this criticism applies to all theories we have seen until now.

A much more elaborate attempt to subsume all readings under a single lexical entry is presented by Gast (2006). He follows König and Siemund in recognizing three basic versions of the intensifier; the adnominal, the exclusive and the inclusive. In order to provide a unified account for these, he follows Eckardt (2001) in assuming that the intensifier denotes the identity function ID from the domain of individuals D_e to the domain of individuals D_e. His suggestion differs from hers in two respects; he assumes that *all* readings denote ID and that the intensifier is always base-generated adnominally to its antecedent. Its varied distribution is derived via a series of movement operations, either of the intensifier itself or the surrounding constituents. This will be discussed in chapter 5. Its varied interpretation is accounted for by assuming, in line with Eckardt (2001), that the intensifier is in narrow focus. In contrast to Eckardt, however, Gast assumes that this kind of focus marking does not induce alternative functions of the BROTHER.OF. type, but instead a generalized *alterity function* (henceforth OTH). Assuming that the intensifier's antecedent x remains in the background, and is hence given in the alternatives,[12] OTH applies to x to deliver *someone other than x*. On the basis of this assumption, a sentence like (36a), which contains the adnominal intensifier, evokes the alternative in (36b).

(36) a. The president himself will open the meeting.
      b. Someone other than the president will open the meeting.

OTH is a choice function, which according to the author does not assign a uniquely identifiable output value to its input but, instead, simply imposes restrictions on the potential realization of the value. But if the only thing that OTH does is to deliver someone other than the intensifier's antecedent then intensifier constructions should have the same interpretation as free focus constructions (this is a construction in which the intensifier's antecedent is in focus and the intensifier not present). This is because focusing a referent x also delivers alternative referents that are not x. The intensifier imposes further restrictions though on the realization of alternative referents as compared to free focus constructions. This can be seen below, in which *Bill* can count as the alternative referent of the free (contrastively) focused *John* in (37B) but not the adnominally intensified *John* in (37B').

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[12] As I will discuss in chapter 6, if an expression E belongs to the background it does not necessarily mean that E is discourse given.

(37)   A: Bill will open the meeting.

         B: No, [John]$_{CF}$ will open the meeting

       # B': No, John himself will open the meeting.

Gast (2006) is well aware of this and stipulates that the use of the adnominal intensifier is associated with a focus supposition (i.e. a specific type of weak presupposition corresponding to a discourse stage prior to the moment of the utterance; see Büring 2004) that says that only alternative referents that are *related* in some way to the intensifier's antecedent can be considered as alternatives.[13] For instance, the author suggests that (36a) states that among the various individuals that are *related* in some way to the president, the one who actually opened the meeting was identical and not different from the president. To make things more concrete, (36b), which is (36a)'s alternative, can be realized as something like (38).

(38) The president's secretary will open the meeting.

The *president's secretary* and the *president* are colleagues and thus related in terms of their job. This is captured by OTH applied onto the president combined with the focus supposition described above. The existence of a relation between an intensified entity and the induced alternative ones holds across many types of contexts in which the adnominal intensifier occurs. We have seen multiple examples in which a relation of *brotherhood*, *wifehood*, or *colleaguehood* holds between these two entities.

    Gast's view is therefore pretty close to capturing the adnominal intensifier's meaning contribution. Nevertheless, I would like to argue that it is wrong on the basis of two arguments. First, the intensified referent and the alternative referents are in fact *not* always related and, second, even in the cases in which the intensified referent is related to the alternative referent in some way, this relation has a special trait, namely, it is always asymmetrical. I begin with the second point. In my discussion of this point, I also suggest that the data can be better captured on the basis of König and Siemund's view on adnominal intensification.

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[13] Hole (2008) treats the adnominal intensifier in a similar manner. Thus, any criticism raised against Gast (2006) also applies to Hole (2008).

As already mentioned, König and Siemund's (see 2.2.2) conclusion is that the adnominal intensifier imposes a central role on its antecedent. For the sake of argument (and despite what I said in the previous paragraph), let us pretend that there is *always* a relation between the intensified referent and its alternative one. On the centrality view, the existence of this relation could be seen as an epiphenomenon of the centrality role imposed on the antecedent. Take for instance the two alternative referents *the president* and *the president's secretary*. The former can be seen as central against the latter in virtue of the fact that the former is the boss of the latter. This explanation implies some relation between the two referents, one of *colleaguehood*. Could it be argued then that the two ways of capturing the meaning of the adnominal intensifier are essentially equivalent? I do not believe that this is the case. Hypothetically speaking, even if centrality consistently implies a relation between the compared referents, this must be an asymmetrical relation. To be more specific, when centrality imposes a relation between x and y, it simultaneously imposes restrictions with respect to the role x and y can adopt in this relation. x must be understood as more significant in terms of this relation compared to y (i.e. if this relation is one of colleaguehood in the context of a company, x must be understood to be higher on the hierarchy of that company compared to y). In order to highlight the difference between centrality (shown in (39)) and Gast's generalization (shown in (40)), I illustrate them schematically by making reference to an expression like *the president himself* and its alternative *the president's secretary*. In (39) *the president*'s centrality and *the secretary*'s peripherality is indicated via the size of the circle they are found in. As indicated in (40), on Gast's view, the size of the two circles can in principle remain the same, as no status restrictions for each edge of the relation are imposed.

(39)
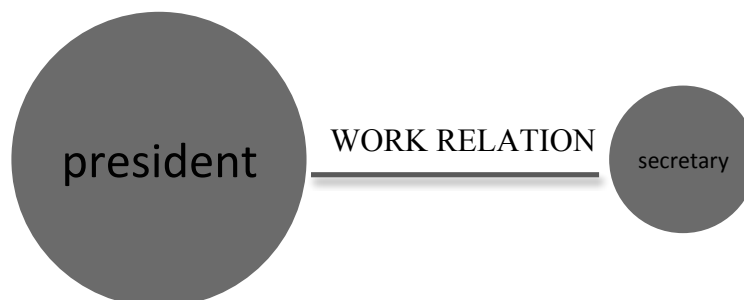
(40)

So a notion like centrality, as described here, is richer than just any generic relation. The question then is whether we really need to complicate our theory by assuming it. I believe that a theory about the interpretation of the adnominal intensifier cannot do without it. If the adnominal intensifier merely imposed a relation between the alternative referents *x* and *y*, then we would expect that reversing the linguistic roles of *the president* and his/her *secretary* in an out of the blue context would still be felicitous. As indicated in (41), intensifying *the secretary*, instead of *the president*, results in infelicity, even though the same 'work' relation holds between the two.

(41)   A: The president will open the meeting.
         # B: No, her secretary herself will open the meeting.

This has direct consequences for Gast's theory. Recall that the application of OTH onto something like *the president,* combined with the focus supposition that restricts the alternative referents only to those that are related to *the president,* delivers *someone related to the president*. But this is inappropriate as it cannot account for the data. If we were to model the meaning of the adnominal intensifier in terms of a relation, then what we would need is the delivery of a more specific, asymmetrical, relation between the intensified *president* and its alternatives. Such an asymmetrical relation could be the result of a centrality role imposed on the antecedent.

   Moving on to the first argument against Gast's approach, there is in fact evidence that the adnominal intensifier can induce alternative referents to *x* that are not related to *x*. This evidence comes from logophoric contexts. Consider the example below, repeated from Gast (2006: 47).

(42)   Jemima guessed that Popey had chivalrous doubts about leaving her in the
       gaunt building, with only Tiger, now in a highly restless mood, as company.
       She *herself* had no such fears.

Briefly, an adnominal intensifier can always take as its antecedent the 'subject of consciousness' (term borrowed from Zribi-Hertz 1989) or 'centre of perspective' (term borrowed from König and Siemund 1999). The prime characteristic of logophoric contexts is that "states of affairs are characterized as utterances, thoughts, or psychological states of some protagonist other than the speaker or narrator" (Gast 2006: 53). In (42) for instance, the 'subject of conciousness' (henceforth SC) whose point of view or perspective is reported is *Jemima*, the antecedent of the pronoun, *she*, which in turn is the antecedent of the intensifier. The expression *she herself* clearly contrasts with *Popey*. Gast (2006) suggests that "all sentences forming part of a logophoric context are by definition interpreted *relative to a given subject of conciousness*" (p. 55). This results in "all DPs [other than the intensified one] occurring in logophoric contexts [being able to] (but not needing [to]) be construed as individuals identified or perceived by the subject of consciousness" (p. 56). Gast further suggests that the identification of a referent y relative to the SC constitutes a relation holding between y and the SC. But I do not agree with this conclusion. Interpreting a referent y relative to some referent x does not necessarily imply any material relation between the two. It could be the case that the SC expresses something about some other referent y, but the SC does not even know y. Take for instance the example below, a variation of (42), and assume that *Jemima* does not know *Barack Obama*.

(43)   Jemima guessed that Barack Obama had chivalrous doubts about leaving
       Osama Bin Laden in the gaunt building, with only George Bush, now in a
       highly restless mood, as company. She *herself* had no such fears.

The use of the adnominal intensifier remains fine, and this is in fact not surprising for Gast (2006). (43) only tries to highlight the fact that interpreting y relative to x does not imply any material relation between x and y. However, on Gast's theory, such a relation ought to hold between x and y, precisely because there is a focus supposition dictating that the alternatives considered must be related to the intensifier's antencedent. His conclusion that such a relation is present in (43) is, to my eye, unwarranted. This

underlines the ad hoc status of the focus supposition Gast proposes to be associated with the use of the adnominal intensifier.

With regard to the exclusive intensifier, Gast reaches two descriptive generalizations: a) its use results in the inducing of alternative propositions that differ only with respect to the referent found in the subject position, and b) its use results in a 'secondary thematic relation' (e.g. a relation of interest, benefit) holding between the intensifier's antecedent and the event (which is the same in every alternative) denoted by the predicate. Based on these generalizations, the author suggests that (44) "is expected to contrast with propositions in which someone other than the subject referent makes the decision at issue, while this referent is still saliently related to that decision" (Gast 2006: 120).

(44)   John made the decision himself.

Before going into how Gast attempts to derive the generalizations about the meaning contribution of the exclusive intensifier, however, it is worth assessing their accuracy. In my view, both generalizations are incorrect. Starting from the first one, the author claims that the alternatives of the proposition containing the exclusive intensifier differ only with respect to the referent in the subject position. However, we have seen examples in which the referent in the subject position in the alternative is in fact the same as in the proposition containing the intensifier. I repeat an example below, in which *John*, the intensifier's antecedent, is the subject of both alternative propositions.

(45)   A: John built his house with Bill.
         B: No, John built it himself. (= without-help reading)

Gast's response to this could be that the generalizations are intended to apply to the non-delegation reading and not the without-help one found in (45B). To my understanding, such a move would defy the very idea of providing a unified theory of all instances of the intensifier. This is because the existence of the without-help reading would not be acknowledged, let alone be explained under one theory. But in any case, even if the author intended these generalizations for the non-delegation reading, the first one is empirically insufficient. This is due to examples like the one found in (35) (I will avoid repeating it here), in which the antecedent of the exclusive intensifier, with the

non-delegation reading, is an object. This results in alternatives differing with respect to the object. My objection with regard to the second generalization is similar to the one raised for the author's description of the meaning of the adnominal reading. I do not think that the invoking of a 'secondary thematic relation' (which is captured by the stipulation of a focus supposition, similarly to the adnominal case) between the intensifier's antecedent and the event denoted by the predicate is enough. This is because it would not allow us to account for instances of the exclusive intensifier that are impossible. In both (46A) and (46A'), *John* is the agent of the same event. The two events differ with respect to the alternative referent's position. *Bill* is either found in a comitative PP or coordinated to *John* in subject position. In the former case, the intensifier can be used as part of a response (see (46B)), but not in the latter. In either case, *Bill* is a causer of the event, even though there may be interpretative differences between the coordinated and comitative cases (see next chapters for discussion on this). The question is *why* when acting as a comitative referent *Bill* is a good alternative to *John*, but not when acting as a referent coordinated to *John* in subject position? There is nothing in Gast's system that would forbid *John* from ending up with a 'secondary thematic relation' in the latter case but not in the former.

(46)   A: John built the house with Bill's help.
         # A': John and Bill built the house.
           B: No, John built it himself. (= without-help reading)

What about the meaning contribution of the inclusive intensifier? Gast (2006) describes it with the following generalizations: a) it induces alternative propositions that differ from the asserted one only in the subject position, and b) it relates its antecedent with a proposition in prior discourse; the author calls this a 'secondary propositional relation'. To illustrate these points, the author provides the example in (47) (Gast 2006: 133).

(47)   Max hates it when Mary snores, although he snores himself.

The suggestion is that the use of the inclusive intensifier in (47) relates the proposition 'Max snores himself' to 'Someone other than Max (e.g. Mary) snores'. In addition, its use implies a relation holding between the intensifier's antecedent and the event described in the alternative proposition (which is of the same type as the sentence

containing the intensifier). This relation is not 'thematic', as in the exclusive case, but 'propositional' or 'external' to the actual event. For instance, the proposition *Max snores himself* implies that *Max* stands in some relation to the fact that someone else snores (e.g. a relation of 'annoyance'). Again, this propositional relation is captured by the stipulation of a focus supposition, similarly to the other cases.

Recall from previous sections that the inclusive and exclusive readings differ in one other respect too, something which is also pointed out by Gast, namely that the latter is used to oppose two alternative descriptions of the same event token while the inclusive intensifier is used to oppose two different tokens of the same event type. The terms *event tokens* and *event types* refer to individualized events and sets of events sharing a specific property respectively (the terms are borrowed from Davidsonian semantics).

In order to account for the difference in meaning of each adverbial instance of the intensifier, Gast assumes the following:

(48) a. Both the exclusive and inclusive (and adnominal) intensifiers denote the identity function (ID).

   b. The alternative of ID is always OTH.

   c. Semantically, the T^0 (tense) node corresponds to a quantifier that existentially binds the *e* variable of the event denoted by the predicate. "T^0 can thus be interpreted as a generalized quantifier. […] this means that (the semantic correlate of) T^0 takes 'untensed' predicates as an argument, and maps them onto 'tensed' predicates, i.e. predicates whose event variable is existentially bound." (Gast 2006: 127)

   d. The exclusive intensifier is c-commanded and in the scope of T^0.

   e. The inclusive intensifier c-commands and scopes over T^0.

This section is only concerned with the interpretative side of the intensifier. I will therefore postpone until section 5.2 the discussion related to the assumptions in (48d) and (48e), which are certainly not straightforward. The two adverbial readings allegedly (see discussion above for exclusive intensifier) have a common feature namely that the alternative sentences contain a different subject referent from the antecedent *x*, namely *someone other than x*. The alternative referent is derived in the same way that the alternative referent of the adnominal intensifier is, via the application of OTH onto *x* in

the alternative sentences. Unsurprisingly, the alleged subject orientation of the exclusive intensifier remains unexplained. The subject orientation of the inclusive intensifier results from the fact that it needs to interact with topical referents. This seems reasonable, given the fact that topical referents are usually subjects. It would be good however to know *why* the inclusive intensifier requires interaction with topics.

What about the fact that the inclusive intensifier makes reference to alternative tokens of the same event type and the exclusive to alternative descriptions of the same event? This different behavior of the alternatives is explained via the position of the two intensifiers. Their syntactic position also explains why the two readings invoke two different types of relations (thematic vs propositional) between their antecedent and the denotation of the predicate. The exclusive intensifier is assumed to be *in* the scope of T^0. T^0 is the node where an existential quantifier binding the event variable e resides. This results in two different descriptions of the same event to be considered. At the same time the thematic relation holding between the intensifier's antecedent and the event in discussion is explained by the fact that OTH is also in the scope of the corresponding T^0 in the alternative (via the notion of 'skolemization'). Sparing the reader the technical details of this proposal, the same approach is applied to derive the inclusive reading's reference to alternative tokens of the same event type and the 'external' (to the actual event denoted by the predicate) relation holding between the antecedent and the event type. That is, ID (or OTH in the alternatives) is outside the scope of T^0. The author summarizes his view as follows; in the alternatives of sentences with the inclusive intensifier "the alterity function OTH is introduced before [(i.e. above)] the existential quantifier binding the relevant event variable. In other words, the focus feature on the intensifier takes scope over this existential quantifier. As a result, the alternative proposition (with OTH in the position of ID) introduces an existentially bound event variable of its own. This is what crucially distinguishes inclusive SELF [(=intensifier)] from exclusive SELF, where both contrasting expressions ID and OTH are within the scope of the existential quantifier, thus providing alternative descriptions of the same event token." (Gast 2006: 138-139).

But this cannot be correct. Given Gast's view, one would expect a focused element found higher than T^0 to evoke different tokens of an event type. One such element can be the subject of a sentence, which is found in SpecTP, under most theories at least. An example is given below, in which the contrastive focus on the subject

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evokes different descriptions of an event token, similarly to the exclusive case, and *not* different tokens of an event type.[14]

(49)   A: John went to the cinema.

         B: No, [$_{TP}$*MARY* [$_T$ [$_{VP}$ went to the cinema]]].

I conclude that Gast's attempt to provide a unified theory of intensification is both empirically and theoretically problematic. Some of his ideas however, will prove to be useful in this current work.

2.4. Conclusion

In this chapter I outlined the main theories pertaining to the interpretation of the intensifier and pointed out their limitations. In the attempt to overcome these limitations, the next chapters develop a new theory of intensification, which combines newly introduced ideas with ideas from the prior literature.

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[14] Note that even if Gast were to assume that the subject is generated VP internally (i.e. below T^0), the criticism still stands. This is because he assumes that every instance of the intensifier (including the inclusive) is always base-generated adnominal to its antecedent. Given that all arguments are base-generated below T^0, the expectation would thus be that every instance of the intensifier would induce different descriptions of the same event.

3. The interpretation of the adnominal intensifier

3.1. Introduction

This chapter and the next one introduce a new theory of intensification in an attempt to overcome the problems faced by previous theories. Ideally, a single set of assumptions will account for both the diversified interpretation and distribution of intensifiers. To keep things simple these chapters will be mainly confined to the explication and derivation of the interpretative side. An extended discussion regarding the manner in which this theory explains the intensifier's distribution is postponed until chapters 5 and 6.

Given the discussion in previous chapters, the intensifier has three basic variants; the adnominal, the exclusive and the inclusive. This division is not only based on the radically different meaning contribution of each type, which should be apparent by now, but also on their different distributional possibilities and different restrictions on the choice of their antecedent (see chapter 1). Nevertheless, as discussed in previous chapters, all three types of this linguistic element (i.e. what is referred to as the 'intensifier') occur in a non-argument position, they are usually realized with the same morphology cross-linguistically, and they are consistently stressed. These are the most obvious facts about the intensifier, but I hope to illustrate in this dissertation that there are additional facts (e.g. centrality effects, syntax) that unite the three variants. It is therefore mandatory for the theory of intensification to be able to predict the common features of these variants (these are the characteristics that allow us to talk about a unique linguistic phenomenon) and simultaneously explain why certain features exhibited by one type of the intensifier are not shared by the others.

This chapter focuses on the interpretation of the adnominal intensifier and defends the idea, first put forth by Eckardt (2001), that the adnominal intensifier is lexically specified with the identity function ID from the domain of individuals D_e to the domain of individuals D_e. In the same way that previous authors took the fact that the intensifier is obligatorily stressed as an indication of its interaction with IS, I assume that the intensifier is consistently marked with an IS category. I follow Neeleman and colleagues (Neeleman & van de Koot 2008; Neeleman & Vermeulen 2012) in assuming that the component of IS operates with three basic categories, focus, topic and contrast, which can be combined to make up new categories. Each category is associated with a different interpretive contribution. In section 3.2 I review the approach of Neeleman and

colleagues to IS. Then I illustrate that the adnominal intensifier can indeed be marked with each one of these IS categories. The intensifier's interaction with IS leads one to expect that it will be associated with different interpretations, which are crucially a result of this interaction and not of its core semantics. This expectation is confirmed.

I further assume that the adnominal intensifier's interaction with IS invariably results in the inducing of the family of *peripherality functions*, PER, each one of them operating from the domain of individuals D_e to the domain of individuals D_e. An instance of PER, PER_i, differs from ID in that it delivers a different output from the input. PER_i's application onto *x* delivers *some entity peripheral to x*. In this indirect manner, I capture the centrality effects imposed on the antecedent of the adnominal intensifier. As pointed out in the previous chapter, however, not every researcher agrees as to whether intensifiers impose centrality effects. I therefore devote considerable effort in this chapter and the next one to showing that a characterization of the meaning of all three intensifiers in terms of centrality is superior to other approaches.

I acknowledge that the notion of centrality is not as clear-cut as one would desire. Quite understandably, the vagueness of this notion has led to some criticism, mainly having to do with the lack of predictions, and has resulted in researchers eventually abandoning it. Setting aside some intuitive characterizations of centrality, such as high status, prominence or importance of a referent, unfortunately, I do not have a proper definition of centrality to offer here either. Nevertheless, the nature of centrality is such that we can track its footprints. Either implicitly or explicitly, advocates of the centrality approach assume (1), which is akin to König's (1991) view regarding the meaning contribution of the German adnominal intensifier *selbst*.[15]

(1) An entity *x* is central against an entity *y*, if *x* ranks higher than *y* on some salient scale specified by the context.

The fact that centrality of *x* presupposes the existence of a scale will prove particularly important for our purposes because it creates the expectation that in every case in which *x* is the antecedent of the intensifier, we should be able to say with precision against which scale *x* is qualified for centrality against *y*. But if centrality depends on scales,

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[15] The condition is as follows:
'Head-bound *selbst* associates a centre with a periphery, entourage, environment, etc. of alternative values and characterises this centre as ranking high on some salient scale specified by the context.' (König 1991: 87)

one may wonder what is the difference between centrality and scalar approaches to intensification?

In my view, the two approaches are guided by the same principle, namely some kind of ranking on a scale. There is one important difference though; the centrality approach does not specify the *kind* of scale on which the ranking of referents takes place. In principle, *x* can be central on the basis of any scale that represents properties, ranging from social relations, like social power, to thematic ones, like responsibility or benefit. The intensifier does not make direct reference to the scale on the basis of which its antecedent ends up central (e.g. on the basis of the power relation holding between *a director* and *his secretary*). The various scales are merely utilized for qualifying different entities as central or peripheral. In other words, the centrality approach assumes another level of comparison between referents; the centrality/peripherality level. Intensifiers make reference to this higher level. This view may be schematized as follows.[16]

(2)
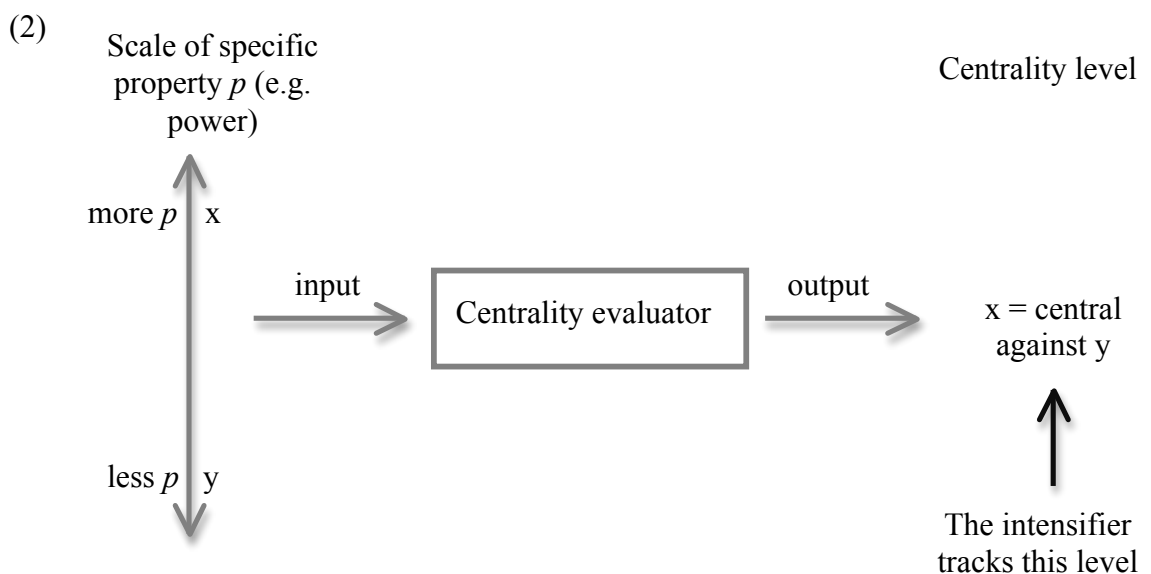
Dispensing with the centrality level would result in a simpler theory. However, I hope to show that there are various reasons why one should *not* do so. One that is worth mentioning here is that (2) is general enough to allow the capturing of the different

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[16] We could conceptualize things slightly differently. For instance, we could say that the intensifier is semantically specified in a way that it makes reference to an underspecified scale (which is equivalent to the centrality/peripherality level), which then needs to be specified by the context in terms of type of scale and how different entities situate on it. Such a theory does not make different predictions from the one presented in the main text.

types of centrality effect imposed by each instance of the intensifier, including the event-related centralities imposed by the adverbial variants (discussed in the next chapter).

Even though this chapter is devoted on the interpretation of the adnominal intensifier, the proposal related to its meaning can be completed only after the meaning of the two adverbial intensifiers is discussed in the next chapter (4), where I suggest that the three variants are in competition. In particular, I propose (in section 4.10) that the type of centrality each instance of the intensifier imposes is conditioned by the Elsewhere Principle (Kiparsky 1973) and discuss how by resorting to this principle we can have a theoretically more parsimonious account compared to the obvious alternative.

This chapter is structured as follows; following the review of the approach of Neeleman and colleagues to IS in section 3.2, section 3.3 expands on each one of the points raised above, except the last one, and explicates how they can contribute to an understanding of the interpretation of the adnominal intensifier. Section 3.4 summarizes the main findings of the chapter.

3.2. Information Structure

The exact predictions of my proposal depend on one's view of IS and particularly the interpretations of topics, foci and contrast. I adopt the view of Neeleman and colleagues (Neeleman & van de Koot 2008; Neeleman et al 2009; and in particular Neeleman & Vermeulen 2012). These authors assume the following IS typology (first presented by Neeleman & van de Koot 2008).

(3)

	Topic	Focus
	Aboutness topic [Topic]	New information focus [Focus]
Contrast	Contrastive Topic [Topic, Contrast]	Contrastive Focus [Focus, Contrast]

The table expresses that topic and focus are basic notions of information structure that can be enriched to yield a contrastive interpretation. This results in a four way typology of IS categories; focus, topic, contrastive focus, contrastive topic. The existence of these categories and their linguistic relevance have been extensively argued for in various works (Reinhart 1981; Rizzi 1997; Kiss 1998; Vallduvi & Vilkuna 1998; Molnar 2002;

Neeleman & van de Koot 2008; Neeleman & Vermeulen 2012; among others). As will be illustrated, the interpretive characteristics of these categories constitute part of the interpretive aspects of intensifiers. More specifically, I hypothesize that intensifiers can, in principle, receive any of the four IS interpretations in (3).

The *Selfish Gene* in (4B) is commonly assumed to be in focus because it answers the wh-expression found in (4A).

(4) A: What did John read?

B: He read [The Selfish Gene]F.

As pointed out by Selkirk (1984; 1996) and others, the focused constituent receives the main stress of the sentence. Following Rooth (1985; 1992), Neeleman & Vermeulen (2012) suggest that the focused constituent evokes a set of alternative propositions that differ only in the focused position and share the rest of the material, the focus value of the sentence. The ordinary value of the sentence is the proposition expressed by the sentence. Below are the ordinary and focus values of (4B).

(5) Ordinary value: [John read The Selfish Gene]

Focus value: {[John read The Selfish Gene], [John read The Blind Watchmaker], [John read The Ancestor's Tale], [John read The Extended Phenotype],...}

The information in (5) can also be represented as in (6), the notation provided by Neeleman & Vermeulen (2012), which I adopt in this dissertation for reasons of simplicity.

(6) <λx [John read x], The Selfish Gene, {The Blind Watchmaker, The Ancestor's Tale, The Extended Phenotype,...}>

When (4B) is compared to (7B) below, there is an interpretive difference. Whereas in the latter example the focused constituent stands in opposition to an alternative explicitly mentioned in the discourse, in the former there is no explicit alternative and no sense of contrast (Neeleman & Vermeulen 2012). Throughout the rest of this dissertation foci appear in SMALL CAPS, topics are doubly underlined, and contrastive categories are *italicised*.

(7)   A: John read The Extended Phenotype.

B: (No, you're wrong) THE SELFISH GENE he read.

(7B) is an instance of a proposition containing a constituent which is interpretatively a combination of the notions of focus and contrast, a contrastive focus.[17]

Neeleman & Vermeulen (2012) propose that contrast corresponds to a quantifier which gives information about the relation between two sets, similarly to every other quantifier (i.e. *every*, *some*). On this view, contrast in (7B) expresses to what extent the set α of contextually relevant books is contained in the set β of things that John read. Two assertions are made: a) one member of α is also a member of β, and b) there is at least one other member of α that is *not* contained in β (The Extended Phenotype). The presence of alternatives and the positive statement in (a) are a result of the semantics of focus, whereas the negative statement in (b) is a result of the semantics of contrast. Therefore, contrastive focus and regular focus differ in that only the former encodes a negative statement. The semantic representation of (7B) is shown below in (8).

(8)   a. $<\lambda x$ [John read x], The Selfish Gene, {The Blind Watchmaker, The Ancestor's Tale, The Extended Phenotype,...}>

b. $\exists y$ [y $\in$ {The Blind Watchmaker, The Ancestor's Tale, The Extended Phenotype,...} & ¬[John read y]].

Contrary to what is the case with the notion of focus, researchers have not reached a consensus with respect to the content and linguistic relevance of the notion of topic (compare Chafe 1976; Reinhart 1981; Vallduvi 1992; Lambrecht 1994). I follow Neeleman & van de Koot (2008) and Neeleman & Vermeulen (2012), who in turn follow Reinhart (1981), in characterizing topics in terms of "aboutness". Note that Neeleman and colleagues draw a clear distinction between 'discourse topics' and 'sentence topics'. A discourse topic is the entity that a unit of discourse is about, whereas a sentence topic is a syntactic constituent used to introduce a referent that the sentence is about. Since the notion of *discourse topic* is not directly relevant to this dissertation, henceforth I refer to the notion of *topic* as to mean *sentence topic*. The subject in (9B) is an instance of topic.

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[17] According to Jackendoff (1972), contrastive focus requires an A-accent in English, a plain high tone (H*) often followed by a default low tone. Regular focus on objects is usually marked with nuclear stress.

(9) A: Tell me about one of your friends.

   B: Well, <u>Maxine</u> was invited to a party by Claire on her first trip to New York.

Similarly to foci, topics are associated with a set of alternatives. The representation of topic differs from that of focus in that it contains an assertion operator. The application of this operator derives utterances rather than propositions. The representation of the ordinary value and topic value (in parallel to the focus value) of (9B) is shown below as (10). Note that the representation below is in accordance with the intuition that the speaker performs the following speech acts when uttering (9B): a) Consider Maxine (out of a set of possible topics); b) I assert that Maxine was invited by Claire to a party in New York.

(10) $<\lambda x$ ASSERT [x was invited by Claire to a party in New York], Maxine, {Susan, Bill,...}>

Similarly to the notion of focus, the notion of topic can also be interpreted contrastively. In (11), *Maxine* stands in opposition to an alternative explicitly mentioned in discourse, *Bill*.[18]

(11) A: Tell me about Bill. Was he invited to a party when he went to New York?

   B: Well, I don't know about Bill, but <u>*Maxine*</u> was invited to a party on her first trip to New York by Claire.

Since the alternatives evoked by topics (and contrastive topics) are utterances, and not propositions as is the case for focus, the interpretational effect associated with contrast is that the speaker is unwilling (or unable) to make (at least) one alternative assertion. As Vermeulen (2010) points out, since contrastive topic is an utterance level notion, the reason for not committing to an alternative utterance must be pragmatic (e.g. the speaker does not want to be held responsible for the information conveyed by the relevant alternative). In a nutshell, Neeleman & Vermeulen (2012) suggest that contrastive foci deny at least an alternative proposition, whereas contrastive topics indicate that the speaker is unwilling (for a pragmatic reason) to make an alternative utterance. (12) constitutes the semantic representation of (11B).

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[18] The reading is most easily accessible with a B-accent, characteristic of contrastive topics (Jackendoff 1972), maximally realised as L+H* and followed by a default low tone and a high boundary tone (L H%).

(12) a. <λx ASSERT [x was invited by Claire to a party in New York], Maxine
{Susan, Bill,...}>

b. ∃y [y ∈ {Bill, Susan,...} & λx ¬ASSERT [x was invited by Claire to a party
in New York](y)].

Equipped with the interpretation of the notions of contrast, topic and focus, and their possible combinations, it can be illustrated how these influence the interpretation of intensifiers. As previously suggested, I hypothesize that intensifiers carry one of these IS roles or a combination of them. As already hinted, the meaning contribution of the intensifier does not simply rest on its semantics. Instead, different components of the grammar, along with pragmatics, make their own contribution to the overall meaning contribution of each instance of the intensifier. The analysis that follows strives for a clear distinction between the various meaning characteristics of each instance of the intensifier. More importantly, I hope to show which component of the grammar is responsible for each characteristic.

3.3. The interpretation of the adnominal intensifier

3.3.1. On the nature of centrality imposed by the adnominal intensifier

In this section we are solely concerned with the interpretative side of the intensifier having to do with the centrality effect. The different effects associated with the IS marking of the intensifier are taken up in a later section.

Perhaps due to the fact that it is found in every language, the adnominal intensifier is the type that has undoubtedly attracted most interest in the prior literature. Suppose the intensifier is associated with an argument α and that P is the predicate resulting from performing lambda abstraction on α. Then the meaning contribution of the adnominal reading has at least the following characteristics; a) it evokes a set of alternative referents that make reference to α, and b) it structures this set into a central element α and peripheral elements {β, γ, …} (König & Siemund 1999; Siemund 2000; Eckardt 2001). These characteristics are now discussed in more detail.

(13) contains an instance of the adnominal intensifier. The intensified value (i.e. the intensifier's antecedent) and the intensifier are adjacent and constitute part of the subject of the sentence.

(13) The director himself will sign the contract.

An important property of the intensifier construction in (13) is the inducing of a set of alternative sentences, which are formed by replacing *the director himself* with alternative DPs. Even though it seems tempting to assume that the DP *John himself* is just like every other constituent that is focused, such an analysis runs into a serious problem when considering (4), repeated below as (14).

(14) A: What did John read?
  B: He read THE SELFISH GENE.

(13) and (14B) diverge with respect to the nature of their alternatives. Restricting attention to the two expressions at issue, *the director himself* and *the selfish gene*, focused constituents, like the one in (14B), allow reference to alternatives that are only restricted in terms of their semantic type. Literally anything that can be read can function as an alternative expression to *the selfish gene*. On the other hand, *the director himself* imposes further restrictions with regard to the nature of its alternatives; not just any entity that is able to sign a contract is a good alternative to *the director himself*, as illustrated below (a similar point was briefly raised in chapter 2).

(15) # A: Mary will sign the contract.
  A': The director's secretary will sign the contract.
  B: No, the director HIMSELF will sign the contract.[19]

(15A) and (15A') differ with respect to the subject referent, though only the latter is a felicitous alternative to (15B), even if both are [+human] and hence able to sign the contract. This is due to the centrality effect imposed by the adnominal intensifier on its antecedent. Intensifying *the director* imposes a restriction on prior discourse. The restriction is that the referent y contrasting with the intensifier's antecedent x needs to be peripheral in some way to x. Given our world knowledge regarding the hierarchical structure of a company, the director is indeed considered to be more central or

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[19] The intensifier appears in *ITALICISED SMALL CAPS* because it is a CF in this particular example, as discussed in more detail later on. In what follows, I indicate the IS-marking of the intensifier only when it's relevant to the discussion.

significant with respect to other employees of the same company, including the director's secretary. (15A) is an infelicitous alternative because it does not satisfy the discourse restriction imposed by the use of the intensifier in (15B). This is because *Mary* cannot be verified as a referent peripheral to the director, at least not in the out of the blue context of (15). Note that focusing, and not intensifying *the director*, in (15B) results in both (15A) and (15A') being able to function as alternatives to (15B), thus confirming that (15A)'s infelicity is due to the presence of the intensifier. This is illustrated below.

(16) A: Mary will sign the contract.

A': The director's secretary will sign the contract.

B: No, the DIRECTOR will sign the contract.

Finally, we can make sure that *the director's secretary* is in fact a good alternative to *the director himself* due to the hierarchically higher position of the latter in the context of a company. Without any extra contextual assumption, *the director* is always considered to be more significant in a company hierarchy compared to *his/her secretary*. We therefore expect the contrast between the two to be infelicitous if we decide to intensify *the secretary*. This expectation is borne out in the example below.

(17)   A: The director will sign the contract.

B: No, the director's secretary HERSELF will sign the contract.

The more general question that arises is under which contextual conditions can a referent be intensified? A related question is whether we can come up with a unified account that is able to bring together all the possible contexts in which a referent can be adnominally intensified. A detailed attempt to answer the first question is carried out by Siemund (2000), who, apart from the hierarchical type of centrality illustrated in (15), identifies three other types (121-122):

(18)　　Adnominal intensifiers structure a set into a central element X and peripheral elements Y when

    a.　X is more significant than Y in a specific situation. (i.e. situational centrality)

    b.　Y is defined in terms of X. (i.e. identificational centrality)

    c.　X is the centre of perspective (logophoricity). (i.e. logophoric centrality)

Examples of each centrality type are provided below (taken from Gast 2006: 47).

(19) a.　Nobody cared about the fans when the fire broke out, but the rock star *himself* was quickly whisked away. (situational centrality)

    b.　Lucy's sister is more intelligent than Lucy *herself* (identificational centrality)

    c.　Jemima guessed that Popey had chivalrous doubts about leaving her in the gaunt building, with only Tiger, now in a highly restless mood, as company. She *herself* had no such fears (logophoric centrality)

According to Siemund (2000), in (19a) the intensified referent, *the rock star*, is defined as central with respect to his *fans* in terms of the situation described by the predicate. I remain doubtful though as to whether this kind of centrality is indeed different from the hierarchical type of centrality for two reasons.

The first reason is that the situation described by the predicate does not provide any special clues that may render *the rockstar* as central compared to his *fans*. Why would *the rockstar* be more central in an event of fire compared to some other referent? One may get away by saying that, given the referents involved in the event, it may be inferred that we are talking about a concert or talk show (with the *rockstar* as the main invited person).

The second reason to be doubtful of situational centrality is more serious though. It has to do with the fact that, in almost every context *the rockstar* will be central with respect to his *fans*. This is similar to the hierarchical type of centrality in which a director has an elevated status compared to his/her secretary (unless extra contextual assumptions are made). The centrality of *the rockstar* and *the director* differ only with respect to the ways the two acquire their elevated status. The former acquires this status in the context of the music industry, whereas the latter in the context of a company. I conclude that the situation denoted by the predicate has nothing to do with *the rockstar*'s centrality or significance (see definition in (18a)).

(19b) is an instance of identificational centrality. The two contrasting referents are *Lucy's sister* and *Lucy*. According to Siemund (2000) *Lucy* is central with respect to her sister in virtue of the different linguistic mode of presentation of the two entities. Whereas *Lucy* is identified with a proper name, *Lucy's sister* is identified via the function SISTER.OF applied to *Lucy*. This is equivalent to saying that *Lucy's sister* is identified via *Lucy*. Even though this counts more as a re-description of what is going on instead of an explanation (i.e. why would *x* be central with respect to *y* if one refers to *y* via *x*?), the linguistic mode of presentation does seem to be the decisive factor for intensifying *Lucy*. A variation of (19b) is given below, in which *Lucy's sister* is now identified with a proper name, *Mary*. This results in an infelicitous use of the adnominal intensifier.

(20) # Mary is more intelligent than Lucy herself.

(19c), repeated from chapter 2, constitutes a logophoric context containing an instance of the adnominal intensifier whose antecedent is the (pronoun co-referring with the) 'subject of consciousness' (SC), *Jemima*. As already pointed out in chapter 2, logophoric contexts report the point of view of the SC, instead of the speaker. As a result of this, all sentences forming part of a logophoric context, including all the referents occurring in these sentences, are interpreted relative to the SC. Intensifying a SC is thus made possible via the same mechanism that allows *Lucy* to be central in (19b), and thus be intensified. The peripherality of the alternative individual *Popey* in (19c) results from the fact that she is *identified* via the SC, something reminiscent to the way that *Lucy's sister* is taken to be peripheral to *Lucy* in (19b). More generally, adnominally intensifying a SC *x* is always possible because all other referents in the logophoric context *x* occurs are interpreted as peripheral to *x*.

In addition to the contexts observed by Siemund (2000), I would like to add the following ones, which I call *spatial* and *temporal* centrality contexts.

(21) a.   X is central with respect to Y in terms of space. (i.e. spatial centrality)
     b.   X is central with respect to Y in terms of time. (i.e. temporal centrality)

Examples of these centrality contexts are provided below.

(22) a. The chair near the table looks nice but the table *itself* is pretty awful.
(spatial centrality)

    b. Many events following WW2, such as the Vietnam war, were awfully
destructive. As bad as those events may have been, nobody can argue
against the fact that WW2 *itself* was the mother of all destructions.
(temporal centrality)

In (22a) *the table itself* contrasts with *the chair near the table*. In (22b), *WW2 itself* contrasts with *many events following WW2*. The centrality of *the table* in (22a) is determined according to some spatial relation, expressed by the preposition *near*, held with *the chair*. The centrality of *WW2* in (22b) is defined according to some temporal relation held with some other *events*. Once again, it seems that in these cases too, the linguistic mode of presentation plays a crucial role in rendering an entity x as central with respect to an entity y. This can be tested by taking (22a), for instance, and changing the linguistic mode of presentation of the peripheral entity (i.e. the chair near the table) in a way that it is not identified via *the table*.

(23) # The chair looks nice but the table *itself* is pretty awful.

We can thus conclude that spatial and temporal centrality contexts are subcases of the identificational centrality context we have seen above. Spatial and temporal contexts differ from the identificational one in (19b) in terms of the precise linguistic means that identification of the peripheral referent takes place. Whereas identification of y via x was established via the use of the spatial preposition *near* in (22a) and the temporal adjunct *following* in (22b), in (19b) it was established via the possessive construction.

All in all, we have reviewed six contexts in which an adnominal intensifier can be felicitously used; hierarchical, situational, identificational, logophoric, spatial and temporal. There may well be more. However, it was shown that these different contexts boil down to two types of centrality. In particular, hierarchical and situational contexts render the intensified DP central in a similar way, namely through the interlocutors' common assumptions/world knowledge regarding the significance of a referent x compared to an alternative set of referents y (henceforth called *world knowledge* type of centrality). Identificational, logophoric, spatial and temporal contexts render the intensified DP x central against an alternative referent y via the use of certain linguistic

means identifying *y* in terms of *x* (henceforth called *identificational* type of centrality). Thus, the empirical expectation (to be left for future investigation) is that we should be able to subsume any other contexts in which the use of an adnominal intensifier is possible under these two types of centrality.

On a more theoretical note, we would like to know two things.

First, what is the precise mechanism that renders certain DPs to be central/peripheral in identificational contexts? To put this differently, why does the use of certain linguistic means (e.g. possession) render a referent central? In world knowledge contexts it is intuitively clear as to why one referent is central with respect to another; a director is always central with respect to his/her secretary on the basis of a status scale in the context of a company (i.e. company hierarchy); a rock star is always central with respect to his/her fans presumably on the basis of a fame (or admiration or power or music abilities) scale. In identificational contexts centrality is not immediately obvious. As we have already seen, a prototypical way of identificationally centralizing a referent is via the use of possession. There has been extensive work on the cognitive modeling of the relation between possessors and possessees in the context of Cognitive Linguistics (see for instance Langacker 2009). Briefly, a possessor is treated by a conceptualizer C as a reference point R in relation to which the possessee, the targeted entity T, is mentally accessed. This relation may be diagrammed as in (6), where the arrows indicate the mental path followed by C to reach T.

(24)   C $\longrightarrow$ R $\longrightarrow$ T

The relative distance between C and R on the one hand and C and T on the other is what makes R central against T. Plotting (24) into a scale of 'mental proximity' in relation to C will result in R being higher than T. In this way a possessor is always central against the possessee and available for adnominal intensification. More generally, when an entity E_1 is accessed or identified via some other entity E_2, the mental path schema in (24) becomes activated. (24) can then be used as the basis for calculating the mental proximity of E_1 and E_2 in relation to C. With respect to this scale, E_2 always ranks higher than E_1, hence E_2 is deemed identificationally central. E_2's subsequent adnominal intensification then becomes possible.[20]

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[20] The question arises as to whether we could unify identificational and world knowledge centralities on the basis of (24). Presumably, the way world knowledge is mentally structured also gives rise to such

The second question we would like to have answer to is: based on the fact that the adnominal intensifier imposes two types of centrality effect, world knowledge and identificational, should we conclude that there are two semantically distinct adnominal intensifiers? Before falling back to such a conclusion, considerations of theoretical parsimony dictate that we need to identify a set of assumptions that allow for the adnominal intensifier to centralize its antecedent *x* in these different ways and that simultaneously disallow it from centralizing *x* along the lines that the adverbial versions do. An answer to this is attempted in sections 3.3.2.1 and 4.10.

Before moving on with the discussion related to the semantics and IS of the adnominal intensifier, it is worth mentioning a new observation, which I owe to Elena Titov (p.c.), regarding the use of the adnominal intensifier at the discourse level. The observation is that the use of the adnominal intensifier can have a disambiguation effect with respect to the choice of a referent *x* in a context in which simple CF-marking of *x* would result in an ambiguous interpretation. This becomes evident in (25).

(25) *Context: Bill Smith, John Smith and John Brown are part of the same class at school. Bill Smith and John Smith are brothers.*

    A: John's brother failed his Math test.

    B: No, *JOHN* failed his Math test. (Actually, the two brothers passed it with flying colours.)

    B': No, John *HIMSELF* failed his Math test. (# Actually, the two brothers passed it with flying colours.)

The exchange in (25) takes place in a context in which there are two different referents that can be matched with the name *John*, namely *John Smith* and *John Brown*. Both (25B) and (25B') negate the utterance in (25A), hence the CF marking of either *John* in (25B) or the intensifier in (25B'). The two responses differ with regard to the referential possibilities of *John*. In (25B) *John* can in principle refer to either *John Smith* or *John Brown*. If the latter interpretation is selected, then we can have the continuation in the brackets. However, the use of the intensifier in (25B') precludes such an interpretation. The antecedent of the intensifier, *John*, can only refer to *John Smith*, and not *John Brown*. Since the intensifier forces *the John Smith* interpretation, the continuation that

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"paths". I am not aware of any concrete evidence in support of this claim, but I see it as a plausible hypothesis that could be tested in the future.

was fine for (25B) is no longer possible. Of course, this observation is easily explained on the view that the intensifier's basic meaning contribution is to centralize its antecedent. In order to refer to *Bill Smith*, A makes use of the possessive construction. *Bill Smith*'s identification take places via his brother, *John Smith*. As previously discussed, this renders *John Smith* central against *Bill Smith*. This results in a felicitous use of the adnominal intensifier when the referent denoted by *John* is *John Smith*. The referent denoted by *John* cannot be *John Brown* in virtue of the fact that alternative peripheral referents are not made available in the context. Hence the infelicity of a continuation (in brackets) that explicitly contradicts the first statement (i.e. *John Smith* failed the test but *John Smith* and *Bill Smith* passed the test). Approaches that do not assume a centralizing function of the intensifier would have had a hard time explaining this observation. Gast (2006) for instance, advocates that a felicitous use of the intensifier only requires a(ny) relation to be holding between the antecedent and the alternative referent. (25) provides a classmate relation among all referents. It therefore remains a mystery, on Gast's view, why *John* cannot refer to *John Brown* when acting as the antecedent of the intensifier.

3.3.2.   Semantics and Information Structure of the adnominal intensifier

3.3.2.1.   Semantics

In this section I make the first step towards accounting for the two types of centrality effect imposed by the adnominal intensifier on its antecedent. I claim that the core-meaning contribution of the adnominal intensifier is the identity function ID on the domain of objects D_e, a proposal first made by Eckardt (2001) for most instances of the intensifier (not just the adnominal) (see section 2.2.3 for an overview of Eckardt 2001).

(26) ID: $D_e \rightarrow D_e$

ID $(\alpha) = \alpha$ for all $\alpha \in D_e$

According to this analysis, the adnominal intensifier is lexically specified with ID, which takes as its input value the referent of a nominal constituent *x*, the associate DP, and maps it onto the same output value. (27) exemplifies this operation for the DP *John himself*.

(27)   ⟦[John] himself]⟧ = ID (⟦John⟧) = ⟦John⟧

The assumption that the intensifier denotes ID equals to saying that its core meaning contribution to the sentence amounts to nil. As already pointed out in section 2.2.3, I believe this view to be correct mainly for two reasons. One, it makes perfect sense from an interpretive perspective; the DP *John himself* does not have a different interpretation from *John*. Two, it predicts obligatory stress on the intensifier. Eckardt proposes that the obligatory stress indicates that the constituent is in focus, and like every other focused constituent, it evokes alternatives, contributing in this way to the meaning of the sentence; hence, the invariable presence of alternatives in intensifier constructions. A crucial detail in Eckardt's (2001) proposal is that the intensifier is taken to be in narrow focus and its antecedent in the background.[21] Following standard information structure (IS) assumptions (e.g. Rooth 1985; 1992), the intensifier's interaction with focus, or more generally with IS, will induce alternative values of the same semantic type. That is, functions on the domain of objects D_e. Contrary to Eckardt (2001), who assumes a family of alternative functions of the type BROTHER.OF, MOTHER.OF, etc, I propose that ID's alternatives are the family of (generalized) *peripherality* functions PER. Even though the invoking of PER as ID's alternatives is a new proposal, the idea of a generalized alternative function is not. As discussed in 2.3, Gast (2006) is the first to assume a generalized alternative function, namely 'OTH'.[22]

The main motivation for assuming generalized alternative functions to ID lies in the fact that it renders a parallel analysis of adnominal and adverbial instances plausible. This is because alternative functions of the type BROTHER.OF are not possible alternatives to an adverbial instance of the intensifier. Nevertheless, the adverbial instances still exhibit centrality effects (albeit of different types) and we would like to capture this by using similar alternative functions. Each PER_i function operates similarly to ID in that it takes a referent as its input and delivers a referent as its output. It differs though from ID in that its output *y* is different from its input *x*. If ID (x) can be paraphrased as *an entity identical to x*, then PER_i (x) is paraphrased as *an entity peripheral to x*. Given that ID and PER_i are applied onto the same referent *x,* we can

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[21] Later on in this chapter, but more especially in chapter 6, I argue that Eckardt's (2001) view is in fact misguided. Instead, I suggest that both the intensifier *and* its antecedent, in adnominal intensifier constructions, are in focus (or, more generally, information structurally marked). The reason that the antecedent remains destressed in most cases lies in the fact that it is always marked as discourse-given (see Schwarzschild 1999 for discourse giveness).

[22] See section 2.3 for argumentation against adopting 'OTH'.

immediately account for the observed centrality effects imposed by the adnominal intensifier on its antecedent x. More explicitly, the antecedent x is understood to be central in virtue of the fact that a peripheral structure (i.e. peripheral referents) is built for x in the alternatives via the application of PER_i onto x. Assuming that one of the induced alternatives to the *director himself* is the *director's secretary*, PER_i takes the *director* as its input and maps it onto *an entity peripheral to the director,* which may be realized as *the director's secretary*. (28) illustrates the semantic characteristics of the family of functions PER (the proposed semantics of PER follows the spirit of Eckardt's proposal).

(28) Let α be the referent of the NP with which the intensifier is associated and let $PER = \{PER_1, PER_2, PER_3, \ldots, PER_k\}$ be salient alternatives to ID in the given context. $Alt^*(\alpha) = \{PER_1(\alpha), PER_2(\alpha), PER_3(\alpha), \ldots, PER_\kappa(\alpha)\}$ will be called the induced set of alternatives to α in D_e. Therefore, the semantics of each PER_i is as follows:

$PER_i: D_e \rightarrow D_e$

$PER_i(\alpha) = \beta$ for all $\alpha \in D_e$, where β is a peripheral alternative to α in D_e.

Note that the peripherality of the alternative referents need not be linguistically marked, e.g. with the use of *secretary of*. Assuming a context in which the interlocutors know that *Mary* is *John's secretary*, *John* can still be understood to be central, and thus be the antecedent of the adnominal intensifier while opposing to *Mary*. Thus the role of PER can be seen as the construction of a peripheral structure to x, without imposing restrictions on the linguistic realization of this structure.

The way we have built the intensifier's semantics, and the semantics of the intensifier's alternative, seems to be general enough to capture both types of centrality effects observed in the previous section, the identificational and world knowledge ones. But if PER_i's application onto x simply serves the purpose of constructing a peripheral structure to x, the question arises as to whether our account over-generates in terms of centrality types. Given that we have not conditioned PER's semantics in a way that could restrict the alternative referent's peripherality only in terms of an identificational or world knowledge criteria, we should expect the adnominal intensifier to be

felicitously used in a context in which the alternative referent is peripheral with respect to an event related criterion. However, we already know, from the previous chapter, that this is impossible. An example is provided below.

(29) A: John built this house with Bill.

  B: No, John (#himself) built it (✓himself).

(29A) sets the context in a way that *John* is rendered central with respect to the event under discussion (more on this in chapter 4). As I will show in chapter 4, this kind of event related centrality is restricted only to the use of the exclusive intensifier. Thus, our account of the adnominal intensifier, as it stands, makes the wrong predictions.

  Perhaps surprisingly, Siemund (2000), who also believes in a three-way distinction of intensifiers, fails to recognize this point. He suggests that "adnominal intensifiers structure a set into a central element X and peripheral elements Y". Taking this statement at face value for the moment, Siemund seems to believe that this is enough for restricting the meaning contribution of the adnominal intensifier to only those contexts that permit its use. To my perception though, there is nothing prohibiting the adnominal intensifier from "structur[ing] a set of possible agents in a situation S into a central agent X and oppose it to peripheral agents Y" (Siemund 2000 on the meaning contribution of the exclusive intensifier).

  In order to overcome this issue, there are two paths one could follow. The most obvious option is to semantically specify the adnominal intensifier in such a way that it will induce peripherality functions of a specific type, whose application onto *x* will deliver outputs that are peripheral to *x* either with respect to an identificational criterion or a world knowledge one. I do not go down this route for reasons that will become obvious shortly. But note that such an approach would presumably require two different versions of ID; lets say, 'ID (x) wrt identification' and 'ID (x) wrt world knowledge', whose focusing would induce 'PER (x) wrt identification' and 'PER (x) wrt world knowledge', respectively. Such a move essentially boils down to an admission that we need two different adnominal intensifiers.

  A less obvious option is to take the view that, in principle, the adnominal intensifier can indeed centralize its antecedent with respect to an event related criterion. I choose to adopt this last view simply because it does not require the introduction of two different entries for the adnominal intensifier and, as I will discuss in section 4.10, the reason that

it cannot centralize its antecedent against an event related criterion is the presence of intensifiers, such as the exclusive and inclusive, that are specifically designed to do this job. As a result of this, the Elsewhere Principle (Kiparsky 1973) can be invoked to restrict the interpretation of the adnominal intensifier to a non-event related criterion of centralizing.[23]

3.3.2.2.   Information Structure

The above discussion was primarily concerned with offering an account for the observed centrality effects with adnominal intensification. Little attention was given though to a further meaning dimension associated with intensification, namely the different inferences obtained from various IS markings of the intensifier. Previous authors seem content with a statement along the lines that 'the intensifier is in narrow focus, and this is why alternatives are induced'. This is indeed enough to derive centrality effects (e.g. via the inducing of PER); however I would like to explore the issue in more detail and eventually show two things; a) once the IS marking of the adnominal intensifier is taken more seriously, one is forced to conclude that the intensifier is in fact *not* narrowly IS marked (contra Eckardt 2001; Hole 2002; 2008; Gast 2006) and, b) the use of the intensifier can be associated with inferences independently argued to be IS related. Thus, the assumption that the intensifier can only be in focus is not enough. To be fair to previous authors however, Eckardt (2001) stands out in discussing this issue to some extent. She suggests that the stress on the intensifier is usually associated with emphatic focus, something that delivers a surprise inference. She herself provides examples though in which this surprise inference is absent. These examples are instances of the intensifier with a hat contour accent, or the intensifier occurring in contexts of question-answer focus, or the intensifier co-occurring with the focus particle *only*. To me, these examples are an indication that the IS notion of emphatic focus is not sufficient to capture all the possible IS uses of the adnominal intensifier.

Based on the IS view of Neeleman and colleagues (Neeleman & van de Koot 2008; Neeleman et al 2009; Neeleman & Vermeulen 2012) outlined in 3.2, I explore the IS marking of the adnominal intensifier more systematically with the aim of reaching a

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[23] This topic is delayed until 4.10 because it makes reference to the meaning contribution of all instances of the intensifier, adnominal and adverbial. Due to this, it has to wait until I first discuss the interpretation of all instances.

complete picture of its possible meaning contribution. The expectation is that the adnominal intensifier will be able to carry the following IS roles; contrastive focus (CF), contrastive topic (CT), focus, topic. The cases involving the notion of contrast (i.e. CF and CT) behave somewhat differently when compared to the focus and topic cases regarding the centrality effect imposed by the adnominal intensifier. I will thus start with the analysis of the contrastive cases and then turn to the non-contrastive ones.

Most, if not all, examples of the adnominal intensifier we have seen until now are instances of a CF marked adnominal intensifier (accompanied with an A-accent). An example is repeated below.

(30) A: The director's secretary will sign the contract.

   B: No, the director HIMSELF will sign the contract.

Aside from the centrality effect on its antecedent, the use of the intensifier in (30B) makes an additional meaning contribution, namely the negation of the salient alternative proposition in (30A). Given the interpretative contribution of CF (see section 3.2), I assume that the exclusion of (30A) results from the CF marking of the intensifier.

If it is indeed the case that the adnominal intensifier is CF marked in (30B) then we expect the exclusion of alternative propositions to be non-exhaustive. Recall from 3.2 that the interpretative effect of CF is the negation of *at least* one alternative proposition. Given the right context, consisting of more than one alternative, we should thus be able to have a CF marked adnominal intensifier that does *not* negate all alternatives. This turns out to be a correct prediction, as shown in (31).

(31) *Context: John intends to marry Mary. However, it is a tradition that he has to meet her family in order to be approved by them.*

   A: John met Mary yesterday!
   B: Yes, Mary HERSELF he met, her BROTHER he also met, but he didn't meet her mother.

In (31) the context provides multiple peripheral alternative referents to the intensifier's antecedent, *Mary*. Each alternative referent *y* results from the inducing of an alternative

proposition/utterance that *y* is part of.[24] The fronting of the antecedent-intensifier construction ensures that it will be interpreted contrastively. This, along with the fact that there is negation of the alternative proposition *he met her mother*, indicate that we must be talking about an instance of a CF marked intensifier. However, the crucial point made by this example is that not all alternative propositions (and hence all alternative referents to *Mary herself*) need to be excluded. Even though *her mother* is excluded, *her brother* is not. The example in (31) is instructive in one further respect. In (30B) the intensifier's antecedent is understood to be central in virtue of world knowledge (world knowledge centrality type). What (31) illustrates is that the CF-marked adnominal intensifier is also compatible with an antecedent that is central via identification (identificational centrality type). This may seem a trivial point, but it will become important when non-contrastive cases of the adnominal intensifier will be discussed.

Based on (31B), I provide the focus semantics of a sentence containing the CF adnominal intensifier. The alternatives are represented as PER_n. The subscript indices on PER correspond to applications of different instances of PER onto *Mary*, something which results in different alternative referents to *Mary*, e.g. the different members of Mary's family.

(32) a. <λx [He met Mary x], ID, $\{PER_1, PER_2,..., PER_n\}$>

   b. ∃y [y ∈ $\{PER_1, PER_2,..., PER_n\}$ & ¬[He met Mary y]].

Given the semantics of ID and PER, (32) expresses to what extent the set of contextually relevant entities (e.g. ID, PER_1, PER_2) is contained in the things that apply onto *Mary*. It is asserted that one member of this set of entities is also a member of the set of things that apply onto *Mary*. It is also asserted that there is at least one other member of this set that is *not* contained in the set of things that apply onto *Mary*, e.g. PER_1. Similarly to an argument marked with CF, the presence of alternatives and the positive statement are a result of the semantics of focus, whereas the negative statement is a result of the semantics of contrast.

We should ask ourselves however whether the semantics in (32) is reasonable given the current assumptions in the IS literature. The adnominal intensifier is similar to other

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[24] To keep things simpler, in what follows I often talk about the alternative entities *x, y, z* at issue and not about the alternative propositions/utterances that differ in terms of the position that *x, y, z* occur. The reader should keep in mind however that the actual alternatives are complete propositions or utterances.

cases in which only subpart of the DP is phonologically contrastive. Consider the example below.

(33) A: The female popstars performed well.

B: No, the MALE POPSTARS performed well.

In (33B) the accentuated phrase is only the adjective *male*, which is adjoined to the DP *popstars*. The mainstream view is that the CF constituent is the DP *male popstars* (see Neeleman & Vermeulen 2012 and references therein). In particular, the stress only on *male* in (33B) evokes alternatives of the type *female popstars*, or more generally *adjective + popstars*, and not just *female*. Even though part of the CF, the head noun remains destressed in the context of (33A). The general consensus in the IS literature is that the head noun remains destressed because it is discourse given (Schwarzschild 1999). In chapter 6 I expand more on this issue. The view just outlined differs from that expressed in (32). (32) expresses that *Mary*, the intensifier's antecedent, is not included in the CF constituent (i.e. ID is IS marked locally). On this latter view, one would certainly like to understand why DPs with the adnominal intensifier are taken to behave differently from the rest of the DPs with accentuated modifiers. The weight of explanation falls on those (e.g. Eckardt 2001; Gast 2006) who diverge from the general consensus. I do not have any arguments in favour of the view that the adnominal intensifier is locally IS marked. In fact, in chapter 6 I provide arguments against such view.

I therefore revise (32) in a way that the alternative propositions differ with respect to the position of *Mary herself*. To reiterate, this type of semantics correspond to the view that the CF is *Mary herself*, and not just *herself*. But such a move could present pitfalls for our account because, in this way, the antecedent x (i.e. *Mary*) does not remain in the background. As a consequence, x will not be given information in the alternatives for PER_is to operate on it, a necessary prerequisite for accounting for x's centrality. Additionally, we cannot explain why x is always destressed (see Schwarzschild (1999) and/or chapter 6 for the relation between stress and discourse giveness). How can we resolve the tension between these two contradicting requirements? On independent grounds, in chapter 6 I suggest that the adnominal intensifier along with its antecedent are always IS marked and that the reason that the

antecedent is present in the alternatives is that the intensifier always marks it as discourse given (and for this reason it remains destressed).[25]

In light of the above considerations, I revise the semantics shown in (32) accordingly.

(34) a. $<\lambda x$ [He met x], Mary ID, {Mary PER_1, Mary PER_2,..., Mary PER_n }>

b. $\exists y$ [y $\in$ {Mary PER_1, Mary PER_2,..., Mary PER_n } & $\neg$[He met y]].

(34) expresses to what extent the set of contextually relevant entities (e.g. Mary ID, Mary PER_1, Mary PER_2, etc) is contained in the things that John met. It is asserted that one member of this set of entities is also a member of the set of things that John met. It is also asserted that there is at least one other member of this set that is *not* contained in the set of things John met (e.g. Mary PER_1). Contrary to just any other CF marked argument however, the presence of the adnominal intensifier constrains the members of the set of alternatives in such a way that only certain variants of the proposition *John met Mary herself* can be included. The position held by *Mary herself* in these variants can only be filled by constituents denoting referents peripheral to *Mary* (e.g. Mary's mother), and nothing else. This comes close to our intuitions regarding the use of the intensifier in (31).

If I am correct in assuming that the exclusion inference observed in previous examples is due to the CF marking of the adnominal intensifier, we expect it to disappear or change in a predictable manner in a different context. Contrary to previous examples, (35A) contains a question of the general form 'Tell me about X', which invites B to make X (e.g. the director's secretary) the topic of her utterance and say something *about* X. B's answer however, switches the topic from X to Y (the director himself). This is achieved via the B-accent on the adnominal intensifier.

(35) A: Tell me about the director's secretary. Is she on holidays at the moment?

B: Well, I don't know about the director's secretary, but *the director himself* is.

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[25] This may strike the reader as a bizarre claim due to the widely held belief that a focused constituent corresponds to discourse new information. In chapter 6 I discuss evidence that clearly show a divergence of these two notions. That is, a focused constituent does not necessarily correspond to discourse new information.

In (35B), the speaker is understood to be performing the following speech acts: a) consider *the director himself* out of the set of possible alternatives *the director himself* and *the director's secretary*; b) assert that *the director himself* is on holidays. In addition, B states that she is unable to provide the information requested by A regarding the director's secretary. Crucially, B does *not* exclude the possibility of the director's secretary being on holidays, thus we cannot be talking about a CF occurrence of the adnominal intensifier. These characteristics are of course reminiscent of the interpretation of CT-marked arguments (see 3.2). Similarly to CT-marked arguments, the adnominal intensifier can also be used in another context, namely in a narrow down topic context.

(36) A: Which members of John's family are on holidays?
    B: Well, <u>*John himself*</u> certainly is, but I don't know about the rest.

In (36), *John himself* is understood to contrast with *(the rest of the members of) John's family*. Both values constitute part of *John's family*. A is asking information about *all* the members of *John's family*, but instead B narrows down the topic of discourse by providing information about a subset of the family, namely *John himself*.

(36) is also useful in one further respect, namely in showing that a CT-marked adnominal intensifier can centralize its antecedent in an identificational manner (i.e. impose an identificational centrality effect). Note that in (35) the intensifier's antecedent can be central in a world knowledge manner. A CT-marked adnominal intensifier is thus similar to a CF marked one in terms of being able to centralize the antecedent in both identificational and world knowledge manners.

In line with the above considerations, I suggest that the adnominal intensifier can be marked as a CT. Below I provide the semantics of (36B). As before, the alternatives are represented as PER(x).

(37) a. <λx ASSERT [x is on holidays], John ID, {John PER$_i$}>
    b. $\exists$y, y $\in$ {John PER$_i$} & λx ¬ASSERT [x is on holidays](y)]

Recall from 3.2 that the lambda operator generates utterances and not propositions, as it does in the case of focus. Therefore, the representation in (37) expresses that the speaker

asserts *John ID is on holidays* and is not in a position (due to a pragmatic criterion) to assert *John PER is on holidays*. Note that the assertion regarding *John himself* matches our intuitions in that it does not imply that *an entity peripheral to John is not on holidays*.

Let us now turn to non-contrastive IS functions of the adnominal intensifier. The example below illustrates the possibility of having the adnominal intensifier as part of a constituent that answers a wh-word in the wh-question. It is well accepted by now that such constituents are in focus.

(38) A: Who did you see today during your visit to Buckingham Palace?
      B: You won't believe it! I saw THE QUEEN HERSELF. (I also saw the Queen's husband along with some of her servants)

Notice that in (38) the intensifier (and its antecedent) cannot be claimed to be marked with contrast for two reasons: a) there are no salient alternatives in discourse, something which is a characteristic of contrastive constituents only and b) there is no exclusion of any alternative referents (as shown by the acceptability of the continuation shown in brackets). Based on these, there seems to be no serious doubt regarding the IS marking of the intensifier in (38). The intensifier (and its antecedent) is a straightforward case of focus. Perhaps surprisingly though, this case (and the topic case later on) will prove more interesting compared to the contrastive ones in two respects, which I discuss in turn.

Recall that a basic tenet of this dissertation is that intensifiers induce alternative referents to the intensifier's antecedent x, which are peripheral to x. I tried to motivate this exclusively with contrastive instances of the intensifier. The reason for doing this was because contrast induces salient alternatives and, in this way, the alternative referents could become obvious. But in non-contrastive cases the alternative referents are not salient. A common assumption is that the denotation of an interrogative is the set of answers to the question (Hamblin 1973; Karttunen 1977). This set of answers is what constitutes the set of alternatives of a focused expression α answering a wh-phrase. Take for instance the question in (38A). The meaning of (38A) is the set of propositions in (39), which differ in the position of α.

(39) {that I saw John, that I saw the Queen herself, that I saw Mary, that I saw the Queen's husband, …}

Now, given the use of the intensifier in (38B), we expect the set in (39) to consist only of propositions consisting of different peripheral referents to *the Queen* in the position of α. How can we test this? We can provide continuations of the type provided in (38B) (in brackets), which are also understood to answer the question in (38A). If the use of the intensifier does indeed centralize its antecedent, then we expect the continuations to only consist of referents in the position of α that are peripheral to *the Queen*. This is done below.

(40) A: Who did you see today during your visit to Buckingham Palace?

B: You won't believe it! I saw THE QUEEN HERSELF. I also saw the Queen's husband/John/Mary/the president.

The continuation in (40) indicates that, literally, anything goes in terms of the kind of referent occupying the α position. It seems that the use of the intensifier does *not* centralize its antecedent. Further corroboration for this conclusion comes from the fact that the same continuations are possible even if the intensifier is not used. Below is a variation of (40), without the intensifier.

(41) A: Who did you see today during your visit to Buckingham Palace?

B: You won't believe it! I saw THE QUEEN. I also saw the Queen's husband/John/Mary/the president.

The presence or absence of the intensifier does not seem to make a difference with regard to the possible set of alternatives. But this cannot be the whole story. For reasons that will become obvious shortly, the intensifier seems to impose restrictions on what can act as its antecedent in these contexts. Whereas, *the Queen* has no problem in acting as the antecedent, *John* has, as shown in (42B). Recall that such an issue did not arise with contrastive cases; *John* and *the Queen* were equally able to play the role of the antecedent as long as they were understood to be central. (42B') intends to show (the trivial point) that *John* can be found in the position of α. Thus, the infelicity of (42B) is due to the intensifier.

(42)   A: Who did you see today during your visit to Buckingham Palace?

  # B: You won't believe it! I saw JOHN HIMSELF.

   B': You won't believe it! I saw JOHN.

To me, (42) is a strong indication that the intensifier does play a role in these focus cases. I will come back to an explanation of (42B)'s infelicity, but it is worth noting for now that an initial comparison of (40) and (42) leads to the conclusion that the adnominal intensifier can only take antecedents that denote referents which are deemed central (to put it in my terms) on the basis of world knowledge.

Having said that, and despite the initial indications to the contrary, I will argue that the intensifier in wh-question-answer contexts does the same job as in the contrastive cases we have seen before. That is, it centralizes its antecedent. I think that the reason that the alternatives seem unrestricted, in that non-peripheral referents to the antecedent are considered, is due to the fact that there are two sources of focus on the same constituent. More explicitly, I claim that *the Queen herself* in (40B) is focused as follows:

(43) $[[\text{the Queen herself}]_{F1}]_{F2}$

Like in previous cases, the first focus (F1) is a result of the presence of the intensifier. Recall that the presence of the adnominal intensifier renders the whole DP IS marked. Contrary to previous cases though, in a wh-question-answer context there is one more source of focusing *the Queen herself* resulting from the fact that it answers the wh-word in the wh-question (F2). In order to motivate this somewhat peculiar double focusing of the same constituent, I aim to show that there are two distinct sets of alternatives; the set of peripheral alternative referents corresponding to F1 and the set of 'normal' alternative referents corresponding to F2. In going about doing this, we first need a restricted context C in which we can identify the alternative referents one by one. In this way we can check the content of the alternative set(s). In addition, we need a referent that can be understood as central based on world knowledge (or more specifically the shared knowledge of the interlocutors) and that is simultaneously central only with respect to C. In other words, we need a referent whose centrality cannot be taken for granted in every context, such as *the Queen* or *the president*. Otherwise, the two sets of

alternatives that we are trying to distinguish may coincide. Following these preparatory remarks, consider the example below.

(44) *Context: The 'Fraser House' is a building accommodating 3 different companies.*
The first floor hosts company A. This company's director is John. John has 5 employees, among whom Charles.
The second floor hosts company B. This company's director is Mary. Mary has 5 employees, among whom Frank.
The third floor hosts company C. This company's director is Fred. Fred has 5 employees, among whom Felicity, Bill and Sarah.
Speakers A and B are the cleaners of the building. They know all the members of staff by name.

A: Who did you meet today at work?

B: Well, I met a quite a few people. I met Charles, Frank, Felicity, Bill, Sarah as well as FRED HIMSELF!

(44)'s context consists of multiple referents that can potentially serve as possible answers to *who* in (44A). (44B) illustrates that there is no restriction as to the choice of the referent in answering *who*. Any referent can answer *who*, no matter whether they are directors or employees, or the company they are working at. Let us call this set 'the F2 set of alternatives'. In addition, the context in (44) is specific enough to provide central referents, the directors, and peripheral referents to each director, the employees. *Fred* is the director of company C and can thus be understood to be central with respect to the employees of C. As a result, *Fred* can be the antecedent of the intensifier. But, if this explanation is on the right track, then we expect infelicity when the intensifier associates with an employee of C. This prediction is borne out below.

(45) *Context: Same as (44).*

A: Who did you meet today at work?

B: Well, I met a quite a few people. I met Charles, Frank, Felicity, Fred, Sarah as well as BILL HIMSELF!

I conclude that the presence of the intensifier in (44) induces a second set of alternatives consisting of *Fred himself*, *Felicity, Bill, Sarah* and two other employees of C. Let us call this set 'the F1 set of alternatives'. Given that these referents can also answer the wh-word in (44A), 'the F1 set of alternatives' is a subset of 'the F2 set of alternatives'.

In the context of (44), the two sets do not coincide; not all members of the latter set are included in the former. For instance, the director of company B, *Mary*, is not understood to be peripheral to *Fred*. This makes 'the F1 set of alternatives' a *proper* subset of 'the F2 set of alternatives'. In order to make things more transparent, I provide a schematic representation of the former (in grey background) and latter (within the border in bold) sets below.

(46)		Company A	Company B	Company C
	Director	John	Mary	Fred
	Employees (E)	Charles, E2, E3, E4, E5	Frank, E2, E3, E4, E5	Felicity, Bill, Sarah, E4, E5

The main outcome of the above discussion is that referents that are included in 'the F2 set of alternatives' are not necessarily included in 'the F1 set of alternatives'. The former set is a proper superset of the latter and hence a referent answering *who* can be a member of both or just 'the F2 set of alternatives'. This is the reason why we cannot detect only peripheral referents to the intensifier's antecedent just by looking at the possible answers to *who*. The same explanation applies to the example in (40). In most contexts, *the Queen* is a referent that carries a natural periphery with her. It can therefore act as an antecedent of the intensifier. In addition, the fact that *the Queen herself* is found in a position that answers a wh-word, more referents are induced, who are not necessarily meant to be understood as peripheral to *the Queen* (such as *the president* or *God*). Since, the set induced by the presence of the intensifier (F1 set) is a proper subset of the set induced by answering *who* (F2 set), we correctly expect the same alternative referent possibilities for *the Queen herself* and *the Queen* (compare (40) and (41)).

With these considerations in mind, I provide the focus semantics of (44B) below. (47a) is the semantic representation of the focus alternatives induced by the intensifier (F1) (*Fred PER$_1$* and *Fred PER$_2$* correspond to peripheral referents to *Fred*; e.g. *Felicity*, *Sarah*) and (47b) is the representation of alternatives induced by being the constituent answering the wh-phrase (F2).

(47) a. $<\lambda x$ [I met x], Fred ID, {Fred PER$_1$, Fred PER$_2$, …}>

b. $<\lambda x$ [I met x], Fred ID, {Charles, Frank, Felicity, …}>

There is one last fact awaiting an explanation, namely the infelicity of (42B). The question that (42B) raises is why the adnominal intensifier can interact with *John* in a contrastive context (see CF and CT cases) but not in a wh-question-answer context? Part of the answer to this has already been alluded to above, when discussing the natural periphery carried by referents such as *the Queen*. As opposed to *the Queen*, *John* does not carry such periphery in an out of the blue context. Put in more familiar terms, *John* cannot be deemed central on the basis of world knowledge, and this seems to be a necessary prerequisite to be able to act as the antecedent. Of course, once such context is made available prior to the wh-question, *John is* able to act as the antecedent (this was illustrated in (44) for *Fred*). However, when discussing contrastive cases of the intensifier, we observed another way of rendering a referent central, namely in an identificational manner. This was the case in which a referent *x* is deemed central on the basis of linguistic means (e.g. a possessive construction) that identify *y* in terms of *x*, such as *x's brother*. It is thus mandatory for a construction like *x's brother* to be linguistically present in discourse for *x* to be understood as central. The usual way this is made possible is via contrast, which enables the alternatives to be salient. If an expression is salient, then it also has a good potential to be linguistically present. But if it is not salient, this possibility is usually ruled out. An example of this is a wh-question-answer context, in which the alternatives are usually not made available in prior discourse. So, the infelicity of (42B) is due to the unavailability of both world knowledge and identificational means that render *John* central.

Nevertheless, it is not impossible for the alternatives to become salient in a wh-question-answer context. For instance, the wh-phrase in (42A) could be answered with multiple referents, one of which could be linguistically expressed in a way that render *John* central in an identificational manner. This is done below.

(48) A: Who did you see today during your visit to Buckingham Palace?

B: You won't believe how many people I saw! I saw Fred, Mary, John's brother as well as JOHN HIMSELF.

Notice that it is not sufficient for the expression *John's brother* to be linguistically expressed in prior discourse. Perhaps trivially, *John's brother* must also be contained in the set of alternatives of *John himself*. In the example below, *John's brother* is, arguably, not contained in the set of referents that can replace *John himself* in the position answering the wh-phrase.

(49)   A: Who did John's brother see today during his visit to Buckingham Palace?

    # B: You won't believe how many people he saw! He saw Fred, Mary as well as JOHN HIMSELF.

A similar conclusion can be drawn in a contrastive context.

(50)   A: Mary met John's brother.

    # B: No, *JOHN HIMSELF* met John's brother.

This obviously results from the fact that *John himself* is not used in opposition to *John's brother*. In (49) *John himself* is in the same set of alternative referents as *Fred* and *Mary*. In (50) *John himself* contrasts with *Mary*. *John's brother* is not included in any of these sets in virtue of being in a different thematic position in either case. Since, neither of the opposing referents to *John himself* are understood to be peripheral to *John*, (49B) and (50B) are infelicitous.

To recapitulate these points, world knowledge centrality of a referent is possible in both contrastive and wh-question-answer contexts. However, the former contexts are more prone compared to the latter to allowing a referent made central through identificational means. The reason for this lies in the fact that identificational centrality can only be attained via the linguistic expression of the peripheral referent. Since contrast forces alternatives to be salient, these can also be easily linguistically expressed, thereby allowing identificational centrality effects. On the other hand, in a wh-question-answer context, alternative referents are usually not salient, and thus not linguistically expressed. Even in this context though, the situation can be reversed by making explicit an identificationally peripheral referent *y* to the intensifier's antecedent *x* in prior discourse (see(48)). *y*'s mere linguistic presence is not enough though, as it must also be contained in the same set of alternatives as *x himself* (see (49) and (50)).

The use of the adnominal intensifier can also deliver another inference, different from the ones we have seen until now. That is, the characterization of the intensifier's antecedent *x* as the least likely or expected member of a set of referents that could potentially replace *x* in the sentence. In this respect, the adnominal intensifier delivers the same scalar inference as the focus particle *even*. Compare (51a) and (51b).

(51) a. Einstein himself could not understand string theory.
     b. Even EINSTEIN could not understand string theory.

Quite pre-theoretically, the meaning contribution of the intensifier and *even* is similar in that they both induce alternative propositions and rank them in terms of likelihood or expectancy, out of which the least likely one is selected. It is generally assumed that the unlikelihood inference generated in (51b) is a result of focus associating with a surprise or unlikelihood inference to deliver 'emphatic focus'. I will not enter into a discussion as to whether this unlikelihood inference constitutes a separate IS category (in the same way that contrast, focus and topic are; see section 3.2) that combines with focus to deliver 'emphatic focus', as it is orthogonal to the present discussion. This is certainly a possibility, which would have direct consequences for the typology of IS notions assumed by Neeleman & colleagues (see section 3.2). What is important here is that the adnominal intensifier can assume such an IS role. My analysis of the meaning contribution of the intensifier in (51a) will be based on the IS categories made available in the theory of Neeleman & colleagues. However, any other analysis of scalar focus would do.

I thus assume that the intensifier in (51a) expresses focus. It differs from other instances of focus (e.g. wh-question-answer contexts) in that it is enriched, pragmatically, with an unlikelihood inference. In the case of (51a) this extra inference comes about as a result of the shared knowledge of the two interlocutors about *Einstein*, which renders Einstein as an unlikely individual to not understand a theory of Physics (i.e. string theory). More formally, the IS interpretation associated with the intensifier in (51a) can be represented as in (52). In (52a) I provide the formalization corresponding to focus and in (52b) the inference corresponding to expectancy. $<_c$ indicates that the proposition on the left of it is less likely to be true than the one on the right of it, given the common ground c.

(52) a. $<\lambda x$[x could not understand string theory], Einstein ID, {Einstein PER$_1$, Einstein PER$_2$,...}$>$

   b. $\forall x$ [$x \in$ {Einstein PER$_1$, Einstein PER$_2$,...} $\rightarrow$ [Einstein ID could not understand string theory] $<_c$ [x could not understand string theory]].

(52b) expresses that, given the common ground c, *Einstein himself* is less likely not to understand string theory than any other member of the given set, which is made available by focus (as represented in (52a)). In addition, and similarly to previous cases of the adnominal intensifier, (52) expresses that the alternative set consists of propositions whose subject denotes a referent who is understood to be peripheral to *Einstein*, something which is yet to be discussed.

   In order to see whether the expectation generated by the semantics in (52) is borne out, the usual test will be applied. In addition, I think it would be fruitful to attempt a brief comparison with the focus particle *even*. Assuming that the use of *even* does not induce peripheral referents to its nominal focus *x*, the general prediction is that *even*, but not the intensifier, will be felicitous in situations in which the alternative referents are not understood to be peripheral to *x*. Starting with the example in (51a), the intensifier's antecedent, *Einstein*, is understood to be central on the basis of world knowledge. Recall that in cases in which referents, like *the Queen*, are understood to be central in virtue of their general importance, the use of the adnominal intensifier is felicitous even when there are no salient alternative referents. As already discussed, this is due to the natural periphery that these referents carry with them, thus allowing accommodation of it. Instead, if a referent is not understood to be central, in the same way that *Einstein* or *the Queen* are, an out of the blue proposition with the adnominal intensifier is bound to be infelicitous. The context below serves the purpose of making the scalar inference possible.

(53)   *Context: John is the kind of guy who prefers to watch movies at home instead of going to the cinema because it is more comfortable. However, the new Superman movie is extremely good and has incredible special effects that are best appreciated with the high-tech equipment of the cinema. As a result…*
   a.   #… JOHN HIMSELF went to the cinema to watch it.
   b.   … even JOHN went to the cinema to watch it.

   c.   *Context: The new Superman movie is extremely good and has incredible special effects that are best appreciated with the high-tech equipment of the cinema. As a result…*
       … THE PRESIDENT HIMSELF went to the cinema to watch it.

(53a) is infelicitous because the requirement that *John* is central remains unsatisfied. The acceptability of (53b) makes sure that the infelicity of (53a) is indeed a result of this requirement (i.e. the context makes a scalar inference possible). *Even* does not impose such centrality requirement on its focus, hence the sentence is felicitous. (53c) illustrates that once the antecedent of the intensifier is a central figure (based on world knowledge), the use of the adnominal intensifier with the unlikelihood inference becomes felicitous.

Similarly to wh-question-answer contexts, if an alternative referent *y* that is identified via the antecedent *x* is linguistically expressed prior to the use of the adnominal intensifier, *x* is not required to be perceived central according to world knowledge.

(54)   *Context: John's brother, Bill, likes going to the cinema. John is the kind of guy who prefers to watch movies at home instead of going to the cinema because it is more comfortable. However, the new Superman movie is extremely good and has incredible special effects that are best appreciated with the high-tech equipment of the cinema. As a result…*
   a.   … John's brother went running to the cinema to watch it. Actually, JOHN HIMSELF went to the cinema to watch it.
   b.   # … Bill went running to the cinema to watch it. Actually, JOHN HIMSELF went to the cinema to watch it.
   c.   … Bill went running to the cinema to watch it. Actually, even JOHN went to the cinema to watch it.

A comparison of (54a) and (54b) confirms the expectation that the use of the intensifier (with the unlikelihood inference) is felicitous only when *y* is explicitly identified via *x*, the intensifier's antecedent. (54c) confirms that a scalar inference is possible in the given context. (54c) also corroborates the conclusion drawn from the comparison of (54a) and (54b).

I conclude the exploration of how the IS marking of the adnominal intensifier influences its meaning contribution by considering cases where it is it marked as topic. An example is provided below.

(55) *Context: It's the royal wedding and the Prime Minister along with other people are walking past in a procession. A BBC commentator is describing the various outfits worn by the PM and the rest of the people.*

    a. <u>The PM himself</u> is wearing a blue suit and a yellow tie.

    b. As for <u>the PM himself</u>, he is wearing a blue suit and a yellow tie.

In (55a) *the PM himself* is the expression that the rest of the predication is about. Given the context, this expression constitutes a *new* topic (selected out of a set of other referents walking along with the PM). We can be certain that it is not a contrastive (topic) because the inference that the speaker is unwilling (or unable) to make alternative assertions about someone else is absent. (55b) supports a topic analysis for *the PM himself* in virtue of the fact that the expression at issue can be introduced by *as for*, a well known diagnostic for topichood. In what follows I will support the claim that in these contexts the intensifier and its antecedent are doubly topical. This is parallel to the double focus marking of the intensifier in wh-question-answer contexts we have seen before. This claim is summarized below.

(56) [[the PM himself]$_{T1}$]$_{T2}$

The first topic marking (T1) results from the presence of the intensifier, which renders the whole DP IS marked. The second topic marking (T2) results from the fact that it constitutes a *new* topic. Similarly to the double focus case, my goal is to show that there are two distinct sets of alternatives; the set of peripheral alternative referents corresponding to T1 and the set of 'normal' alternative referents corresponding to T2. Since there has been an extensive discussion on double IS marking in the case of wh-question-answer context, I will keep the present discussion short to avoid repetition. Recall that one of the main conclusions resulting from the wh-question-answer context discussion is that the set of alternatives induced by the presence of the intensifier is a proper subset of the set of alternatives induced by the other source (i.e. answering the wh-phrase). For (56), this means that the set induced by T1 is a proper subset of the set induced by T2. We thus expect a non-peripheral alternative referent to *the PM* to be able to replace *the PM himself* in (55a). For reasons already discussed, having to do with the natural periphery of the PM, this cannot be shown using the example in (55). What is needed is a somewhat more complicated example, in which the antecedent of the

intensifier can be perceived as central only with respect to a subset of the referents that can function as topics of a predication; something like (44) (see schematic representation of (44) in (46)). In the following example, the context of (44) is used (with minor changes).

(57) *Context: The 'Fraser House' is a building accommodating 3 different companies.*
The first floor hosts company A. This company's director is John. John has 5 employees, among whom Charles.
The second floor hosts company B. This company's director is Mary. Mary has 5 employees, among whom Frank .
The third floor hosts company C. This company's director is Fred. Fred has 5 employees, among whom Felicity, Bill and Sarah.
A is an employee of one of the companies and she is reporting to a former employee the happenings at the end of year party of the building. Both of them are familiar with all the members of staff by name.

A: <u>Fred himself</u> came with a suit, which seemed pretty expensive.

A': <u>Frank</u> came with a suit, which seemed pretty expensive.

(57A) is similar to (55a) in that an adnominally intensified referent acts as the topic. (57A') simply chooses some alternative referent as the topic of the utterance, *Frank*. *Frank* is included in the set of alternatives of *Fred* himself, as indicated by the context, but he is *not* a peripheral referent to *Fred* because he is not an employee of his. What remains to be shown is that there is a proper subset of the possible topical referents in (57), resulting from T1. If T1 is indeed induced and consists of peripheral referents to the intensifier's antecedent, then we expect non-central referents (i.e. employees) in the context of (57) to be bad antecedents. This is indeed the case, as shown in (58).

(58) *Context: Same as (57)*.
A: <u>Frank himself</u> came with a suit, which seemed pretty expensive.

In all the examples containing a topical intensifier provided until now, the antecedent is central on the basis of world knowledge. As discussed earlier, identificational centrality

is impossible, unless an alternative referent *y* that is identified via *x* is explicitly mentioned in the context, as shown below with a topical intensifier this time.[26]

(59) *Context: Same as (57)* with the extra information that Felicity and Bill are siblings.

    A: <u>Bill's sister</u> came with a very expensive dress. <u>Bill himself</u> came with something much simpler.

   # A': <u>Felicity</u> came with a very expensive dress. <u>Bill himself</u> came with something much simpler.

Below I provide the alternative (or more precisely topic) semantics of (57A). (60a) is the representation of the focus alternatives induced by the intensifier (T1). (60b) represents the alternatives induced by T2.

(60) a. $<\lambda x$ ASSERT [x came with a suit…], Fred ID, {Fred PER$_1$, Fred PER$_2$, …}>
      b. $<\lambda x$ ASSERT [x came with a suit…], Fred ID, {Charles, Frank, Felicity, …}>

The representations in (60) are in accordance with the intuition that speaker A performs the following speech acts when uttering (57A): a) Consider *Fred himself* out of a set of possible topics that are both peripheral and non-peripheral to *Fred* and, b) I assert that *Fred himself* came with a suit….

3.4. Summary

After briefly outlining a particular view of Information Structure, that of Neeleman and colleagues, this chapter argued that the meaning of the adnominal intensifier can only be captured via the utilization of the notion of centrality. It was argued that the adnominal intensifier requires antecedents that are either central in an identificational manner or in terms of world knowledge. It was then proposed that this meaning dimension of the adnominal intensifier can be (partly) understood if we assume that it denotes ID, whose IS-marking results in the inducing of the family of peripherality functions PER. For this to work, both ID and PER need to apply onto the same referent, the antecedent of the intensifier *x*. This is achieved once we assume that the intensifier explicitly marks *x* as

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[26] The only way I can think of doing this is by having a construction that looks like a switch topic, which is a variety of contrastive topics. Example (59) is thus not particularly suitable to illustrate the point.

discourse given. The chapter further discussed in some detail how the different IS-marking of the adnominal intensifier influences its interpretation.

4. The interpretation of the exclusive and inclusive intensifiers

4.1. Introduction

The previous chapter focused on the interpretation of the adnominal intensifier, while laying the seeds for a parallel analysis of the exclusive and inclusive variants. Similarly to the case of the adnominal intensifier, I argue that the two adverbial variants impose a central interpretation on their antecedent, though, a different (event-related) one. I assume that these two variants also denote the identity function ID, albeit a minimally different version compared to the one denoted by the adnominal case. More specifically, the exclusive and inclusive intensifiers are conceived of as manifestations of $ID_{adverbial}$ from the domain of individuals D_e and domain of events D_t to the domain of individuals D_e. The application of $ID_{adverbial}$ onto a referent x and an event e delivers *an entity identical to x relative to e*. The assumption that all three types of the intensifier share the same semantic core (i.e. ID) provides clues about their common morphology and consistent stressing.

As in the adnominal case, I take the consistent stressing of the two adverbial variants to be an indicator of their IS-marking (for more details on the view of IS adopted in this dissertation see section 3.2). I assume that the interaction of $ID_{adverbial}$ with IS results in the inducing of the family of event-related peripherality functions $PER_{adverbial}$. Each $PER_{adverbial(i)}$ has the same characteristics as its alternative $ID_{adverbial}$ in that it operates from the domain of individuals D_e and domain of events D_t to the domain of individuals D_e. The difference between the two is that the output individual y is interpreted as peripheral to the input individual x relative to the event e.

The chapter is structured as follows: sections 4.2 and 4.3 discuss the meaning of the exclusive and inclusive intensifiers respectively, with special focus on the type of centrality effect each one of them impose on their antecedent x. Even though both the exclusive and inclusive intensifiers impose an event-related centrality on x, the two centralities are not the same. Section 4.4 elaborates on this point and section 4.5 provides a brief interim summary of our findings. On the basis of the conclusions reached in sections 4.2, 4.3 and 4.4, sections 4.6, 4.7 and 4.9 propose a new semantics for the two adverbial variants and elaborate on their IS-marking. I maintain a common lexical entry for the two variants and attempt to attribute their different interpretation to their dissimilar semantic interaction with the event denoted by the main predicate. The nature of this interaction is regulated by the distribution of $ID_{adverbial}$, and in particular,

whether it occurs internally or externally to the VP. Section 4.8 offers distributional evidence from English to support the view that the exclusive intensifier is, semantically, an event-internal element (syntactically VP-internal) whereas the inclusive intensifier an event-external one (syntactically VP-external). Finally, section 4.10 discusses how the Elsewhere Principle (Kiparsky 1973) enters the picture in explaining the possible meaning contribution of each intensifier (adnominal, exclusive and inclusive). Section 4.11 concludes the discussion.

4.2. Exclusive intensifier

4.2.1.   Basic characteristics

This section provides a basic characterization of the meaning contribution of the exclusive intensifier.[27] The use of the exclusive intensifier is similar to that of the adnominal in that it evokes alternative referents to its antecedent. Below is an example of the exclusive intensifier.

(1) John built his house himself.

(1) can be degraded when introduced in an out of the blue context. Rather it is typically used in a correction context in which the addressee holds the belief that, in addition to *John*, some other referent was involved in the building of the house. More specifically, (1) is felicitous in a situation in which *John* is a causer of the building of the house and is believed to have received some help for it from a second referent. (1) is also felicitous in a context in which *John* does not contribute to the building of the house, but instead is only indirectly involved in the event (e.g. benefits from the event's resultant state). If we were to describe with one sentence the (false) beliefs that make the use of the intensifier in (1) possible the following can be imagined.

(2) a. John built his house with Bill.
     b. John built his house, even though he had some help from Bill.
     c. Bill built John's house.
     d. Bill built a house for John.
     e. John had Bill build his house.

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[27] An attempt to explain the facts recorded in this section as well as the next one is made in section 4.7.

(2a,b) correspond to the context in which *John* is the agent of the event, whereas (2c,d,e) correspond to the context in which *John* is the indirectly involved party (e.g. the house eventually belongs to *John*). Any of them can act as alternatives to (1). With the use of the exclusive intensifier, these alternatives are always understood to be false. In this respect, the use of the exclusive intensifier is similar in function to that of the adnominal intensifier when marked with CF. The two differ though (among many other respects) in terms of the structure of the alternatives. Whereas in the adnominal case the alternative referent's position in the sentence is relatively stable in that it occupies the same position as the intensifier's antecedent, in the exclusive case the alternative referent can be found in a comitative PP (see (2a)), in a different clause (see (2b)), or in the subject position (see (2d,e)). Additionally, the intensifier's antecedent can be present in the alternatives. The position of this referent can also vary. In (2a,b,e) *John* is in a subject position and in (2d) *John* is in a beneficiary PP. In (2c) *John* is embedded in the object. Despite the structural differences of the possible alternatives, they are all stable in terms of the component that is negated; negation always targets the alternative referent to the intensifier's antecedent, *Bill*. Loosely speaking, the role of the alternative referent, *Bill*, is similar in most cases in that he is understood to cause/contribute to the event of building the house.[28]

What is important to note is that the inferences obtained with the use of the exclusive intensifier cannot be attributed, solely, to the exclusion of *Bill*. If this were the case, then we would expect inferences to arise that are similar to those we find with the CF-marked adnominal intensifier (in which the alternative referent is also negated). This is not what we find, however. Instead, what seems to matter to a great extent is the understanding that the intensifier's antecedent x is also involved in the event denoted by the alternative. Depending on the kind of involvement of x, different inferences are understood.

On the one hand, (2a,b) are similar in meaning in that *John* is the agent of the event. The alternative referent y (i.e. *Bill*), is limited to a helping role in carrying out the event. Once (1) occurs in such context, and negates it by excluding y, then we get a reading in which x is characterized as the exclusive causer of the event; what is better known as the *without help* or *assistive* reading of the intensifier.

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[28] But this is not always the case. Recall the Dutch example from the previous chapter in which the alternative referent is in the object position, and is thus not understood to be causing the event.

On the other hand, (2c,d,e) are similar in that *x* is not understood to be causing the event. The event is now exclusively caused by *y*. *x* is nevertheless understood, in all three cases, to be involved in the event in some other way, for example through *x* being ultimately responsible for the coming about of the event. If (1) occurs in this type of context, and negates *y*, then we get the understanding that *x* is both the (sole) causer and responsible party for the event. To put this differently, *x* has not delegated the causing of the whole event to *y*; this reading is known as the *delegative* reading of the intensifier.

I will adopt the terms *without help* and *non-delegation* to refer to these two core readings of the exclusive intensifier (the change from *delegative* to *non-delegation* is made in order to be as close as possible to the inference obtained).

In addition to the *without help* and *non-delegation* readings, the exclusive intensifier may deliver two further inferences, which are similar to the *non-delegation* reading in that the antecedent of the intensifier is not directly involved in the event denoted by the alternative sentence. These have been previously classified as the *maleficiary* and *beneficiary* readings by Siemund (2000). Starting with the latter, the exclusive intensifier can occur in a context in which the antecedent *x* is the beneficiary of the event denoted by the alternative (like (2d)), but nevertheless *x* was not aware of the happening of such an event (so the event could not have been delegated). This would be a case in which (2d) acts as the alternative to (1), but, let's say, *Bill* builds a house for *John* as a surprise gift for *John*'s wedding. (3B) is an instance of the *maleficiary* reading.

(3) A: Bill has ruined Paul's career.

B: No, Paul has ruined his career himself. (adapted from Siemund 2000:123)

In this instance, the intensifier's antecedent *x* is understood to be both the causer and the referent that the event (of ruining *x*'s career) has a negative effect.

4.2.2.   On the nature of centrality imposed by the exclusive intensifier
4.2.2.1.   General discussion

An important facet of the exclusive intensifier is that the direct or indirect involvement of its antecedent in the alternative is necessary for its felicitous use; a point which was

already made in chapter 2 (but only for the non-delegation reading). Consider the examples below.[29]

(4) *Context: Speaker A believes that John's brother built his house with Bill's help.*
     A: [John's brother]$_1$ built his$_1$ house with Bill.
     # B: No, John built his brother's house himself. (attempted reading on the basis of the context: *John built his brother's house without Bill's help*)

(5) *Context: Speaker A believes that John's brother has delegated the building of a house to Bill.*
     A: Bill built this house for John's brother.
     # B: No, John built this house himself. (attempted reading on the basis of the context: *John did not delegate the building of this house to Bill*)

(4A) and (5A) do make reference to *John* in some way, namely via the identification of a referent as *John's brother*, but in each exchange speaker B knows that speaker A does not believe *John* himself to be involved in the event. This makes the use of the exclusive intensifier impossible, as opposed to the fine use of the adnominal intensifier in the same contexts (see (6) and (7)).

(6) A: John's brother built his house with Bill.
     B: No, John himself built his brother's house with Bill.

(7) A: Bill built this house for John's brother.
     B: No, Bill built this house for John himself.

A further difference between the adnominal and exclusive intensifiers is that the alternative referent does not have the same status. The alternative referent contained in the sentences in (2) is *Bill*. This does not raise any problem for the felicitous use of the exclusive intensifier. Nevertheless, we have seen in the previous section that this type of referent does not qualify for world knowledge or identificational peripherality, which is necessary for the felicitous use of the adnominal intensifier.

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[29] I only provide examples of the core readings of the exclusive intensifier, *without help* and *non-delegation*, but the same point applies to the *beneficiary* and *maleficiary* cases.

(8)   A: Bill built a house.

       # B: No, John himself built a house.

What can be concluded from this is that the exclusive intensifier does not enforce a world knowledge or identificational centrality on its antecedent. So, the question that arises is whether this instance of the intensifier enforces centrality to begin with, and if yes, what its nature is.

Recall that the exclusive intensifier requires its antecedent to be involved in the event in some direct or indirect manner. But this is not enough for its felicitous use, because if it were, then the intensifier should be able to pick out as its antecedent any other referent also involved in the event. Consider the following examples.

(9)   A: John built this house with Bill

      B: No, John/#Bill built it himself.

(10)   A: Bill built this house for John.

       B: No, John/#Bill built it himself.

If the exclusive intensifier's only requirement were for its antecedent to be involved in the event under discussion, then, in principle, either *John* or *Bill* would do. Only *John* is a possible antecedent though. This indicates that the intensifier imposes some restrictions on the status of its antecedent and, crucially, these restrictions seem to be related to the role held by the antecedent in the *event* specified by the alternatives, (9A) and (10A). Notice that the unfeasibility of *Bill* acting as the antecedent of the intensifier in (9B) and (10B) cannot be ruled out on the grounds of logical impossibility. Recall that the inferences we get from the use of the exclusive intensifier result from the type of involvement of its antecedent in the alternative version of the event. If *Bill* were a possible antecedent, then we would expect (9B) to mean something like: *Bill* is the sole causer of the event. For (10B) we could expect something like: *Bill* is both the causer and the beneficiary of the event (i.e. Bill built this house for himself). These two interpretations are certainly logically possible, but *Bill* is still a bad antecedent.

I hypothesize that the impossibility of *Bill* acting as the antecedent of the exclusive intensifier lies in the fact that it imposes an *event* related centrality on its antecedent. To

make this more explicit, the exclusive intensifier requires its antecedent to be central compared to some other referent with respect to the event under discussion. This immediately explains why both the intensifier's antecedent and the alternative referent must be involved in some way in the event denoted by the alternative; this is the only way to compare the two in terms of their event involvement. We can also understand why *Bill* is a good alternative to the antecedent of the exclusive intensifier but not of the adnominal one; this is because centrality in the exclusive case is calculated on the basis of one's involvement in the event; thus the world status of a referent or the way this referent is linguistically identified are not expected to play any role in classifying her/him as central/peripheral. The claim to be defended about the meaning contribution of the exclusive intensifier is summarized in (11) (to be further qualified in section 4.4 to accommodate differences between the exclusive and inclusive intensifiers). Notice that, as it stands, (11) is similar to Siemund's (2000) claim about the meaning of the exclusive intensifier. The two differ in that (11) does not make reference to alternative agents.

(11) The exclusive intensifier centralizes its antecedent against other referents in an event-related manner.

But in what way must the intensified referent be understood as central compared to the alternative one? In order to answer this question, we need to zoom in on the role held by the two referents in the event denoted in the alternative. I discuss each reading in turn starting from the *non-delegation* one. Consider again the example below.

(12) A: Bill built this house for John. (i.e. John had Bill build this house)
      B: No, John built it himself. (reading: *non-delegation*)

As already pointed out, in order to get the *non-delegation* reading it must be the case that in the alternative proposition the intensified referent x is understood to delegate some participatory role in the event (e.g. causing the building of the house) to some other referent y, the alternative referent to x. In (12A), for instance, *John* is interpreted as the entity that delegates to *Bill*/instigates the causing of the building of the house. The presence of the intensifier in (12B) replaces *Bill* with *John*, the delegator of the role

of causing the event; thus we get the inference that *John* did not delegate this particular role.

I would like to suggest that, in (12B), the possibility of having *John* as the intensifier's antecedent, but not *Bill*, lies in the fact that *John* is interpreted as the *ultimately responsible* entity for the outcome of the event in question (i.e. the state of the house being built).[30] This is because *John* is understood to be the primary instigator of the coming about of the house being built. I assume that there is a salient criterion of 'responsibility for the outcome of the event' on the basis of which the two alternative referents are compared. Even though *Bill* is the agent in (12A), *John* is more responsible compared to him as regards to this criterion. It is in this way that *John* is central (in an event related manner) against *Bill* in (12).

The above claim takes for granted that both *John* and *Bill* are found on the 'responsibility for the outcome of the event' scale. As *Bill*'s responsibility for the building of the house is minimal, it could be argued however that he is not interpreted to be on this scale to begin with. In what follows, I argue that this is not the case, thereby providing crucial support for the centrality approach.

The example in (12A) consists of the causative predicate, *build*, whose external argument is *Bill*.[31] In the literature of causation there is general agreement that the external arguments of causative verbs are associated with properties other than mere participation in the causation of the resultant state (see, for instance, Reinhart 2000, 2002; Haiden 2012). In fact, external arguments may be understood *not* to participate in the actual action. Instead, the entity that participates in the action in a causative manner may be found in a comitative PP, as indicated in (13). Stoltz et al (2006) call such referents *human instruments* because they are always controlled by the external argument (in the same way that *a knife* can be controlled).

(13) John terrorizes the neighborhood with his children. (adapted from Stoltz et al 2006)

(13) can be used in a situation in which *John* is merely the initiator of the action, but does not perform the action of terrorizing himself.

The rather "loose" relation that the external argument of a causative verb can have to the predicate is argued by Neeleman & van de Koot (2012b) to result from the

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[30] A similar suggestion is made in Siemund (2000).
[31] By 'causative verbs' I refer to the verbs that encode a resultant state (e.g. the house being built).

incomplete manner in which causation is encoded in simplex predicates. In particular, these authors argue (i) that such verbs do not specify a causing event and (ii) that the external argument of a causative verb expresses which referent is considered crucial in the coming about of the resultant state the verb encodes:

> "Given the complexity of the mental model (and the complexity of reality), a speaker must decide which factor is essential in a causal relation (the CCF [i.e. crucial contributory factor]) and which factors fall in a *ceteris paribus* category. For example, suppose that several burglars use a hammer in an attempt to break a particularly strong window, and that only the most muscular of them – John – succeeds. This situation can be described by saying that John broke the window, where John is presented as the crucial contributory factor. It would be odd to say that the hammer broke the window. On the other hand, if John was alone and tried to break the window first by using a brick, then by using a piece of timber and finally by using a hammer, succeeding only in the last attempt, then the situation may be described quite naturally by saying that the hammer broke the window. In doing so, the choice of instrument is presented as the crucial contributory factor." (Neeleman & van de Koot 2012b: 23)

Crucially, a CCF can only be merged externally (see also Reinhart 2002 for a similar view for [+c] arguments). Neeleman & van de Koot make the further assumption that natural language makes reference to the rule in (14), which assigns accountability to [+m] CCFs (that is to agents).

(14) **Accountability**

The referent of a DP specified as [+m] (for a referent with a mental state) is held accountable for the action expressed by the verb if and only if it is the CCF argument of that verb.

On this analysis, the causative verb *build* in (12) encodes (a) a crucial contributing factor and (b) the culmination of an event in an end state (e.g. the state of the house being built). Furthermore, since the external argument of this verb is specified as [+m], the corresponding referent is held accountable for the end state of the event.

If this view of causative simplex predicates is correct, then *Bill* is a CCF in (12A), and thus held accountable for the end state of the house being built. Accountability (in its technical definition in (14)) and responsibility are almost synonymous notions; evidence for this comes from the fact that, in addition to *Bill*, *John* (who is the ultimately responsible referent for causing the building of the house in (12A)) can be in the subject position of a sentence (as in (15)) that is an accurate description of the situation to which (12A) also successfully refers.

(15) John built this house.

The difference between the two notions lies in the fact that accountability can only be attributed to external arguments of causative predicates whereas responsibility may be ascribed to any kind of referent *x*, irrespectively of the role *x* has in an event. Consider for instance a context in which the head of a bank asks one of his employees to receive a package from the post-man on his behalf. This situation could be described as follows:

(16) The employee received the package on behalf of his boss.

Arguably, the referent *x* that does the receiving of the package is held responsible for it, at least in the eyes of the head of the bank. However, given the definition of accountability in (14), *x* cannot be held accountable for this action, as *receive* is not a causative predicate (and hence *x* is not a CCF). On the other hand, a referent that is held accountable for the resultant state encoded by causative predicate is also responsible for it.

We can thus conclude that accountability is a very specific case of responsibility. Accountability entails responsibility, but not the other way around. Consequently, an external argument of a causative predicate can always be characterized as being responsible for the outcome of an event. This implies that, for our example in (12) both *John* and *Bill* are found on the comparison scale of 'responsibility for the outcome of the event'. I began the discussion by asking whether the exclusive intensifier imposes any centrality effect to begin with. The fact that we have two available responsible referents in (12A), but only the one with the ultimate responsibility is a good antecedent strongly suggests that the answer is positive.

Let me emphasize that the above discussion does not entail that the *non-delegation* reading is restricted to contexts involving causation. The conclusion was simply that the *non-delegation* reading in causative contexts provides crucial evidence for the inclusion of the alternative referent on the 'responsibility for the outcome of the event' scale (and thus his/her comparison with the intensifier's antecedent on the basis of this scale). Below is an instance of the *non-delegation* reading interacting with the subject of a non-causative predicate.

(17) *Context: John frequently asks Bill to attend meetings on his behalf.*

      A: Bill attended yesterday's meeting on behalf of John.

      B: No, John attended it himself.

Since the predicate *attend* is not causative, it does not encode a resultant state. Consequently, the *non-delegation* reading cannot be restricted to comparing alternative referents in terms of 'responsibility for the outcome of the event'. Instead, it seems that the comparison can be more general, so long as it involves responsibility for a role in an event. It is explicit in the context of (17) that *Bill* is the agent of attending the meeting in virtue of being asked by *John*. Put differently, *John* delegates the attending of the meeting to *Bill*. Due to this, *John* ranks higher than *Bill* in terms of 'responsibility for one's attending of the meeting'; thus the former referent is central against the latter in an event-related manner.

    Note, however, the antecedent of the *non-delegation* reading does not have to be a subject. After all, being ultimately responsible for an action in an event cannot be restricted to prompting a referent to participate in that event in an agentive manner. Indeed, given the right context, a referent may be prompted to participate in a manner (e.g. as a theme) that is compatible with the object position of a linguistic utterance. The negation of such an utterance with the use of the exclusive intensifier should result in a *non-delegation* reading whose antecedent is in the object position. We have already seen that in Dutch this is possible.[32] I repeat the example below.

(18) *Context: I had been trying to get Mary, the head of the Research Department, to come to my office to discuss progress on the new prototype. But every time I emailed her with some question, she claimed to be busy and sent over an assistant to discuss the matter with me. But yesterday, after an email expressing deep reservations about RD's most recent budget overrun...*

    … heb   ik   Marie₂ uiteindelijk zelf₍₂₎   kunnen spreken.
    … have I   Mary   ultimately self   can   speak
    'Ultimately, I have spoken to Mary herself.'

As the context indicates in (18), *Marie* usually delegates being spoken to by the speaker to her assistant. In this way, she is seen as responsible for a theme (her assistant) to be

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[32] In chapter 5 I provide a syntactic explanation as to why this is not possible in English.

spoken to by the speaker. In negating this situation, the *non-delegation* reading is in turn able to interact with a theme, *Marie*.

Let us now consider the *without help* reading. Consider again the example below.

(19) A: John built this house with Bill.

   B: No, John built it himself. (intended reading: *without help*)

In order to get the *without help* reading in (19B), *John* and *Bill* must hold a similar thematic relation with respect to the event of building the house in (19A). Since they both contribute towards the resultant state of the event, this relation can be characterized as a causative one. For instance, (19A) would be compatible with a situation in which *John* builds the walls of the house, whereas *Bill* does the rest. Crucially, the amount of work that each referent carries out towards the resultant state is not relevant in getting the *without help* reading. (19) would still be a fine exchange in a situation in which it is *Bill* who builds the walls and *John* does the rest. Thus the only requirement for getting the *without help* inference is that both referents materially contribute to the coming about of a resultant state.

However, we have seen in (9) that contributing to the coming about of a resultant state is not enough for the choice of the antecedent. In the alternative sentence, the antecedent *must* be the external argument (the agent), and not the referent found in the comitative PP. I think that the reason for this lies in the fact that the referent denoted by the external argument of a causative verb is standardly associated with accountability for the resultant state encoded by the verb. Recall that accountability for a resultant state implies responsibility for it.

The claim is that the *without help* reading is the same as the *non-delegation* reading in that the comparison scale is one of 'responsibility for an action in an event'. The only reason we get different inferences lies in the varying degree of participation of the intensified referent in the negated version of the event. If the role R in question is one of causing a resultant state, the *non-delegation* inference results from the intensified referent x delegating the *whole* of R to the alternative referent y, whereas the *without help* one results from x delegating *part of* R to y.

A second claim is that an external-argument referent always ranks higher than a comitative referent on this scale. Due to this the former referent is event-relatedly central against the latter. Note the limited nature of this claim: it concerns comitative

referents that act as alternatives to the intensifier's antecedent. It is not intended to apply to *every* referent found in a comitative PP (even though this may be the case). The reason I am making this explicit is because comitative PPs are notorious for the variety of interpretations they can express (see Lehmann & Shin 2005; see Stoltz et al 2006 for up to eight different uses of a comitative PP), and one of them could may well be an instance in which the referent in the PP *is* understood to be the primary responsible entity for an action in the event (e.g. causing the resultant state encoded in the event). However, when acting as alternatives to the intensified referent, comitative referents have a fixed interpretation: they *help* the agent carry out the event. This entails that the primary responsibility for the comitative referent's action in the event lies with the agent. A less ambiguous description of a context that the *without help* reading can occur in is probably (20), instead of (2a).

(20) John built this house with the help of Bill.

I have tried to argue that the *without help* inference is essentially the same as the *non-delegation* one. Both of them result from the exclusive intensifier tracking the most central referent with respect to the event under discussion. More specifically, both readings result from tracking the relative 'responsibility for a role in the event' of the alternative referents, with the one with the highest ranking qualified for centrality. Notice that this criterion is *not* specific to responsibility for bringing about a resultant state. This is how we could capture the interaction of the *non-delegation* reading with subjects of non-causative predicates (see (17)) as well as objects (see (18)). This makes the crucial prediction that the *without help* reading should be able to occur in the same contexts as the *non-delegation* one. This prediction is disconfirmed by the following examples, in which the *without help* reading is impossible in the context of the non-causative predicates *work* and *go*.

(21)   A: John worked with the help of Bill.

       ? B: No, John worked himself.

(22   A: John went to the meeting with the help of Bill.

       ? B: No, John went there himself.

This unexpected result raises doubts as to whether the *non-delegation* and *without help* readings are really the same instantiation of the exclusive intensifier. At first sight, the *without help* reading seems to be restricted to tracking only 'responsibility for the outcome of an event' (hence the possibility of having it only in causative contexts), contrary to the more flexible *non-delegation* one. I think that this interpretation of the facts is wrong. Instead, the reason that the *without help* reading is impossible in non-causative contexts lies in the fact that the alternative referent must hold the same thematic role as the intensifier's antecedent. In section 4.7 I will try to explain this requirement on grounds of alternative semantics. For now, I will just illustrate that this requirement is in fact true. In the case of the *non-delegation* reading this is certainly always true. If we go through the examples we have seen before, the alternative referent is always found in the same thematic/syntactic position as the intensifier's antecedent. I take this to be an obvious point.

The *without help* reading is more complicated. We need to explain why a comitative referent is claimed to have the same agentive thematic position as the intensifier's antecedent in a causative context but not in a non-causative one. The crucial test for distinguishing the two is the entailments involved for each [predicate α + comitative referent x] complex in sentence S_1. If a given [predicate α + comitative referent x] complex in S_1 entails some other sentence S_2 with *x* in subject position, then we can be confident that *x* holds the thematic role corresponding to the subject, the position in which the antecedent of the intensifier with the *without help* reading is consistently found. Indeed a sentence S_1 with a causative predicate and a comitative referent *x* entails some other sentence S_2 with *x* in the subject position and the same predicate. That is, S_2 always remains true when S_1 is true. In this respect, non-causative predicates behave in the opposite manner. That is, S_2 is not always true when S_1 is.

(23) S_1: John built this house with Bill's help ⊨ S_2: Bill built this house.

(24) S_1: John worked with Bill's help ⊯ S_2: Bill worked.

(25) S_1: John went to the meeting with Bill's help ⊯ S_2: Bill went to the meeting.

If *Bill* helped *John* to build the house then it is also true that *Bill* built (some of) the house. On the other hand, if *Bill* helped *John* to work, it does not have to be the case

that *Bill* worked. For instance, we can imagine a context in which *Bill* simply fixed *John*'s computer, allowing *John* in this way to do some work on the computer. Similarly, if *Bill* helped *John* to go to a meeting, it does not have to be the case that *Bill* went to the meeting as well. For instance, we can imagine a context in which *Bill* only gives a lift to *John*.

We can thus attribute the infelicity of the *without help* reading in the context of a non-causative predicate to the fact that its antecedent and the alternative referent do not hold the same thematic roles in the event in discussion, a requirement on the construction that will be attributed to alternative semantics in section 4.7. Crucially, we can also maintain the claim that the *without help* and *non-delegation* readings are the same instances of the exclusive intensifier tracking central referents on the basis of one and same criterion, that is, 'responsibility for a(ny) role in the event'.

Putting all these considerations together, we reach the conclusion that exclusive intensifiers with the *without help* and *non-delegation* inferences manifest the same underlying criterion with respect to which centrality is calculated. Both inferences result from the exclusive intensifier imposing an event-related centrality effect on its antecedent. This type of centrality effect is calculated on the basis of the alternative referents' relative 'responsibility for a(ny) role in the event'. What seems to be the case, however, is that responsibility should not be seen as a notion of 'binary distinction' (i.e. responsible vs not responsible) but rather as a 'continuum' of different levels of responsibility. Theoretically speaking, any referent on this continuum can be central, as long as this referent is not at the lowest level of the continuum. The lowest referent on the continuum can only be interpreted as peripheral.

I summarize these points below. An event external instigator corresponds to a referent that delegates a role in the event in its entirety. We have seen that such a referent is understood to be more responsible as compared to subject or object referents for the thematic roles corresponding to these latter referents. A subject referent is in turn more responsible compared to a comitative referent *x* for the role held by *x*. The ranking shown in the scale in (26) reflects these considerations.

(26)

The exclusive intensifier with the *without help* and *non-delegation* inferences tracks central referents wrt the event under discussion. Centrality is calculated on the basis of the relative 'responsibility for a role R in the event *e*' of the alternative referents.

responsibility for R in e

←—————————————————————————————

Event external   subject/object   comitative referent
instigator
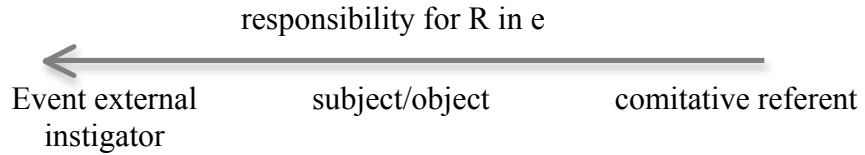
If I am correct in assuming that responsibility for R in *e* is a matter of degree, then we expect a referent in the middle of the scale to be able to be interpreted as both central and peripheral. A CCF for instance, should be able to be interpreted as central with respect to a comitative referent and peripheral with respect to an event external instigator, simultaneously (i.e. in a single event). In an event in which all three types of referents are present, this is indeed possible. The possibility of responding to (27A), with either (27B) or (27B') illustrates the point.

(27) A: Bill built John's house with Peter's help.

B: No, John built it himself. (i.e. event not delegated to Bill)

B': No, Bill built it himself. (i.e. without Peter's help)

(27B) negates the fact that *Bill* (and Peter) built the house. (27B') negates the fact that *Peter* helped with the building. Given our previous discussion, the former is made possible only if *Bill* is peripheral to *John* and the latter only if *Bill* is central with respect to *Peter*; in both cases with respect to the same criterion of 'responsibility for bringing about the state of the house being built'.

The notion of responsibility has proved relevant in capturing how a referent involved in an event is understood to be central (in comparison to other referents) in the core cases of the exclusive intensifier (i.e. *without help* and *non-delegation* readings). But, we still need to understand on the basis of which event related criterion the antecedent is central in its remaining uses, namely the *beneficiary* and *maleficiary* cases (see discussion surrounding (3)). Recall that these are similar to the *non-delegation* reading in that the antecedent of the intensifier is not directly involved in the event denoted by the alternative sentence. A responsibility criterion cannot be invoked for

either of the two cases though. For the *beneficiary* case, this is because there are cases in which the alternative proposition p explicitly states that the (subsequent) antecedent of the intensifier x does not have knowledge of the happening of the event denoted in p. If x is not aware of the event in p, then x cannot have initiated that event, and thereby be understood as responsible for it;[33] similarly, in the *maleficiary* case, x is not interpreted as having initiated an event whose happening has negative consequences for x in the context of the alternative proposition.

It thus seems that in classifying event related central/peripheral participants in discourse, the exclusive intensifier seems to be able to keep track of other referent-event relations, in addition to responsibility. Consider again the *beneficiary* reading below.

(28) *Context: Bill is a builder and John's best friend. John got married last year.*
    A: Bill built John's house as a surprise wedding present.
    B: Of course he didn't. John built his house himself.

In line with the approach outlined above for the *without help* and *non-delegation* readings, I propose that the *beneficiary* reading also results from the exclusive intensifier tracking central referents with respect to the event under discussion. In particular, centrality is calculated in accordance to the extent to which a role held by some referent y in an event is deemed to be beneficial for some referent x, y, z. A referent x can be central as long as x is not at the lowest level of the benefit scale. In (28) the alternative referents are *John* and *Bill*. The two are compared in terms of the extent to which they have benefited from *Bill* causing the state of the house being built. *John* is interpreted to be higher on this scale, as it is evident from the possibility of expressing (28A) with the use of a beneficiary phrase (e.g. Bill built a house *for John* as a surprise wedding present). *John* is therefore able to subsequently interact with the exclusive intensifier. (29) summarizes these considerations.

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[33] Of course we cannot preclude the possibility that one may be benefited from an event while having knowledge of its happening. The reason that I'm matching the beneficiary reading with a context in which the antecedent x did not have knowledge of the event in the alternative is that, in this way, we can be sure that x did not delegate the event, thereby ruling out a comparison of the alternative referents in terms of 'responsibility'.

(29)
The exclusive intensifier with the *beneficiary* inference tracks central referents wrt the event under discussion. Centrality is calculated on the basis of the relative 'benefit from a role R in the event *e*' of the alternative referents.

benefit from R in *e*

$\longleftarrow$

x   y
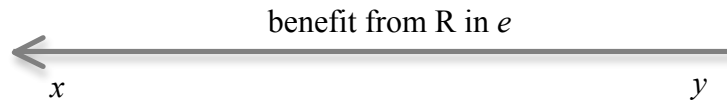
In a similar vein, I suggest that the *maleficiary* reading (an example of it repeated below from (3B)) results from the calculation of the centrality effect in accordance to the extent to which a role held by some referent *y* in an event is understood to have negative consequences for some referent *x, y, z*. A referent *x* is central as long as *x* is not at the lowest level of the malefit scale. In (30) the alternative referents are *Paul* and *Bill*. The two are compared in terms of the extent to which they incur negative consequences from *Bill* causing the state of *Paul*'s career being ruined. *Paul* is interpreted to be higher on this scale because one's ruining of their career is a negative development for them.

(30) A: Bill has ruined Paul's career.

B: No, Paul has ruined his career himself. (adapted from Siemund 2000: 123)

(31) constitutes the proposal for this reading.

(31)
The exclusive intensifier with the *maleficiary* inference tracks central referents wrt the event under discussion. Centrality is calculated according to the relative negative consequences the alternative referents incur from a role R in the event *e*'.

negative consequence
from R in *e*

$\longleftarrow$

x   y
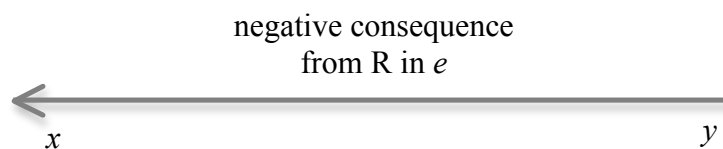
This seems like a suitable point to briefly go back to the *without help* reading. The conclusion we drew from the discussion of this reading was that it results from the exclusive intensifier tracking the relative responsibility of the alternative referents for a role R in the event. I suggested that the *without help* and *non-delegation* readings, the latter also resulting from the tracking of the same comparison criterion, differ with respect to the relative material participation of the intensified referent (in the same role

as the alternative referent) in the alternative version of the event. The *beneficiary* and *maleficiary* readings we have seen above are similar to the *non-delegation* reading in that the intensified referent is entirely not materially involved in the alternative event (in the same role as the alternative referent). The question is whether we can have the exclusive intensifier tracking, let's say, the alternative referents' (e.g. *x* and *y*) relative *benefit* when both *x* and *y* materially contribute to the coming about the resultant state in the alternative event. This context is the same as the context we have seen above for the *without help* reading. As the example shows below, this is indeed possible.

(32) *Context: Bill is extremely rich and John's best friend. John is poor and at the same time a very proud person. Due to this, he would never accept money from Bill to build his house. However, Bill managed to contribute to John's building of his house, without John knowing, by paying part of the salary of the builders. Only speaker A knows about this.*

A: John built his house with the help of Bill's money.
B: No, John built it himself.

Given the context in (32), *John* cannot have delegated part of the house building to *Bill*. This decreases the saliency of the responsibility criterion (even though it cannot be completely ruled out that *Bill* is still somewhat responsible for the building of the house in the eyes of the interlocutors), allowing in this way the consideration of the benefit one (the malefit criterion does not seem to be a possible basis for comparison in this context). What can be tentatively concluded from examples like this is that the term *without help* cannot only correspond to the reading in which the alternative referents are compared in terms of responsibility. For this reason, I will henceforth adopt the terms *non-delegation, beneficiary* and *maleficiary* to correspond, respectively, to the comparison criteria of 'responsibility for R in *e*', 'benefit from R in *e*' and 'malefit from R in *e*'. This is irrespectively of the material participation of the intensified referent in the alternative version of the event, which seems to be insignificant for the analysis of the meaning of the exclusive intensifier.

We have seen that the exclusive intensifier centralizes its antecedent in an event-related manner. In particular, the antecedent must be ranked higher than the alternative referent in terms of three criteria; responsibility for R in *e*, benefit from R in *e* and malefit from R in *e*. At least two questions arise from this, which I indicate below.

(33) a. What is the nature of these criteria?

     b. Why these criteria in particular?

I briefly speculate for each question in turn, starting from (33a).

A common feature of the three comparison criteria is that they have a thematic flavor, in the sense that they are relations between a referent and an event that may be encoded by a predicate. The most obvious case is the *beneficiary* criterion. A referent *x* denoted by an argument is thematically a beneficiary if the action denoted by the predicate has a positive impact on *x*. An example of a predicate that assigns a beneficiary thematic role to one of its arguments is *bake*. In *John baked Bill a pie*, *Bill* benefits from *John*'s causing the resultant state of the *pie* being baked, and therefore qualifies as a beneficiary (note that one can negate this example with *John baked it himself*). The maleficiary criterion is the exact opposite of the beneficiary one. A referent *x* denoted by an argument can have a maleficiary interpretation if the action denoted by the predicate has a negative impact on *x*. An example of a predicate that assigns a maleficiary interpretation to its patient (or theme) argument is *destroy*.[34] In *the black hole destroyed the star, the star* incurs negative consequences from *the black hole*'s causing the resultant state of *the star* being destroyed. This leads to the expectation that the use of the exclusive intensifier should be possible in this context. This is slightly harder to show than the beneficiary case. This is because *destroy* does not allow for an implicit argument in the same way that *bake* does. Consequently, the switching of the argument position of *the star* from the object to the subject position will lead to the generation of a reflexive in the object position, which is morphologically identical to the intensifier in English. This leads to certain complications, as we will see immediately. Consider the example below, taken from Gast (2006: 101), in which the patient argument (=underlying object; the star) compares with the agent (=underlying subject; a black hole) on a maleficiary scale.

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[34] Note the difference between a maleficiary and a patient. A patient is always an entity that is directly affected by the action expressed by the verb, and this effect does not necessarily have to be interpreted as negative. On the other hand, a maleficiary can be a referent that is indirectly affected by the action denoted by a predicate. For instance, *John* may be interpreted as the maleficiary of the event of *Bill eating John's dinner*. The point I'm trying to make in the main text is that the internal argument of *destroy* is interpreted as being negatively affected and should therefore be able to act as the exclusive intensifier's antecedent. I do not claim that *destroy* selects for a maleficiary internal argument, as it could be the case that it selects for a patient or a theme that is always negatively affected by the action denoted by the predicate.

(34) The star was not destroyed by a black hole, it destroyed itSELF.

(34) consists of two propositions. The proposition in the left hand side consists of the predicate *destroy*, which, before passivization, takes two arguments, the patient argument (=underlying object; the star) and a cause (=underlying subject; a black hole). This proposition is negated by the proposition in the right hand side. This proposition is argued to consist of a reflexive and an intensifier, which are realized as one word, presumably due to their morphological identity. As Gast (2006: 101) points out, *itself* performs a reflexivizing function "indicating that the star produced an explosion which resulted in its own destruction. […] it […] furthermore emphasize[s] that the destruction of the star was not caused by an external force, but by the star itself. […] *itself* performs two functions at the same time: it establishes the reflexive relation, and it contrasts the causer (the star) with possible alternative causers (a black hole). In fact, it is feasible to argue that the meaning of […] (34) is really **the star [destroyed itself$_{REFL}$] [itself$_{INT}$].*"[35] But for the intensifying function of *itself* to be possible, *the star* must qualify as central with respect to the malefit scale (no other scale seems to be possible here), which can only become salient if it incurs negative effects. The fact that *destroy* assigns a maleficiary interpretation to its patient argument guarantees the saliency of this scale.

Finally, there was extensive discussion related to the responsibility criterion previously, focusing on the similarities and differences between responsibility and accountability, the latter argued by Neeleman & van de Koot (2012b) to be attributed to the external argument of a causative predicate. The conclusion of that discussion was that responsibility constitutes a generalization of accountability, with the two being indistinguishable however when it comes to external arguments of causative verbs. We can thus be confident that responsibility is also thematic in nature.

In view of the above considerations, the question in (33b) may be formulated in a way that takes them into account:

(35) Why is the exclusive intensifier only able to track the relations (of thematic flavor) it does and not others?

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[35] The collapsing of the two morphemes into one is presumably due to a syntactic version of the phonological phenomenon of haplology (see Neeleman & van de Koot 2007).

The three criteria of responsibility, benefit and malefit share another characteristic. That is, either of them can be attributed, simultaneously, to more than one referents with respect to the same event. Take for instance responsibility for the murder of a terrorist *x*. Imagine a situation in which the president of the USA orders the head of the CIA to kill *x*. The head of the CIA, in turn, orders some CIA hitman to commit the murder. Given this state of affairs, one would assign responsibility for the resultant state of the terrorist being dead to all three referents involved in the killing (see Neeleman & van de Koot 2012b for a similar point on the basis of a variation of Katz's wild west story). Now imagine that the killing of *x* would benefit each one of the referents involved in some way; the president of the USA would increase his popularity, the head of the CIA would take a promotion to the position of the secretary of defense and the hitman is promised to take a promotion to some higher position in the CIA. Imagine, further, that the same killing has negative consequences, not only for the terrorist himself, but also for the organization that the terrorist is the leader of. Then we can conclude that one and the same resultant state (i.e. the death of the terrorist) may attribute responsibility, benefit or malefit to more than one referents. That is, these relations can be shared simultaneously. This is a good result for the centrality approach to the meaning of the exclusive intensifier. This is because the exclusive intensifier requires its antecedent to be central (i.e. to rank higher) against some other referent in the alternative event with respect to one of these relations. A necessary prerequisite for this is that the relation that is used as the basis for the comparison is, in principle, shareable. If not, then the compared referents are to be found at the same point of the scale, hence neither of them can be central against the other. Take for instance the example below.

(36) John went to the restaurant with Mary.

This example can successfully describe a scenario in which *John* takes *Mary* to the restaurant for a date. Since both *John* and *Mary* end up at the restaurant, they are both thematically agentive. Crucially, the two 'agents' go to the restaurant to the same extent. To put this more crudely, it is impossible for a referent *x* to half-go to a restaurant. If *x* is involved in an activity as an agent, then *x* is involved to the fullest extent possible. Thus, the use of the exclusive intensifier cannot be used as a response to (36) (e.g. # No, John went to the restaurant himself), because both *John* and *Mary* are agentively related to the event to the same (fullest) degree; neither of them can be understood central

against the other. I think that the same point applies to the rest of the core thematic relations (i.e. theme, experiencer, recipient), but I do not expand on each of them at this point. If this view of thematic relations is correct, then we have an extra argument in favor of the centrality approach to the meaning of intensifiers. This is because it can explain why the exclusive intensifier is restricted to interacting with referents that are understood to be responsible for/benefited from/malefited from an event, even though, in principle, it could interact with other referents that are thematically related to the event in question in other ways.

One final argument in favor of the event related centralizing effect of the exclusive intensifier comes from the contrast of the examples below.[36]

(37)   A: John and his children terrorized the neighbourhood.
        # B: No, John terrorized it himself.

(38) A: John terrorized the neighbourhood with his children.
       B: No, John terrorized it himself.

Arguably, (37A) and (38A) express a similar meaning; both are good descriptions of a situation in which *John* and *his children* contribute to the terrorizing of the neighborhood. The two differ though in terms of the accountability of *his children*. In (37A) *his children* is understood to be accountable for the resultant state, but not in (38A). We can distinguish between the two readings in the following context; imagine a situation in which *John's children* is the sole participant in the event of terrorizing the neighborhood. *John* acts as an instigator of the event by instructing *his children* to terrorize the neighborhood. In Stoltz et al's (2006) terms, *his children* acts as a human instrument. Given this situation, only (38A) constitutes a good description. The reason (37A) is not an accurate description of such state of affairs lies in the fact that both *his children* and *John* are in subject position. This makes them both CCFs. In particular, the problem arises from the fact that *John* and *his children* are coordinated CCFs. It is well known that coordination requires conjuncts to be of the same semantic type. This forces the two referents to be equally accountable for the resultant state, something that is incompatible with the context outlined. With this conclusion in mind the reason behind

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[36] The point raised by the comparison of (37) and (38) is also discussed in chapter 2, in the context of criticizing Gast's (2006) description of the meaning of the exclusive intensifier.

the infelicitous use of the intensifier in (37A) becomes apparent. The coordination of *John* and *his children* enforces equal accountability, and thus responsibility, for the resultant state. Put differently, *John* and *his children* are at the same point of the responsibility scale for causing the resultant state of the neighborhood being terrorized. Thus, there are no central/peripheral referents in discourse for the use of the intensifier to become possible. Once again, the notion of centrality seems indispensable.

4.2.2.2.   Conclusion

In summary, we discovered that the exclusive intensifier requires its antecedent to be deemed central in an event-related manner in the induced alternative event. Centrality may be calculated on the basis of either responsibility for a role R in the alternative event *e*, benefit from R in *e*, or malefit from R in *e*. Depending on which scale is considered, we get the *non-delegation, beneficiary* or *maleficiary* readings. Finally, we have seen that the centrality approach may explain why only these three relations are considered by the exclusive intensifier for the ranking of the alternative referents. This is because only these three relations can be shared by multiple referents with respect to the same event.

4.3. Inclusive intensifier

4.3.1.   Basic characteristics

This section describes the meaning of the third and final instance of the intensifier, the inclusive. In section 4.9 I will attempt an explanation of this intensifier's meaning. Similarly to the adnominal and exclusive intensifiers, the inclusive intensifier induces alternative referents to its antecedent. An example is provided below.

(39) A: Bill has raised three kids.

B: John has himself raised three kids, and he said that it was hard.

The use of the inclusive intensifier in (39B) presupposes that some other referent has, in addition to *John*, raised three kids, namely *Bill*. Due to this, (39B) is infelicitous in an out of the blue context.

(40)   # John has himself raised three kids, and he said that it was hard.

The additive effect observed with the use of this instance of the intensifier is in direct contrast to the adnominal and exclusive instances, in which there can be negation of alternatives. As a result of this, the intensifier in (39B) can be replaced with an additive particle, such as *also*, without great difference in meaning.

(41) A: Bill has raised three kids.

　　　B: John has (also) raised three kids, and he said that it was hard.

As a matter of fact, Browning (1993) and Kibrik and Bogdanova (1995) try to reduce the meaning of the intensifier in (39B) to the one of *also*. Siemund (2000) also discusses this possibility quite extensively but concludes that the two linguistic elements are similar but not the same. In particular, Siemund suggests that the two are similar in terms of the additive effect, but differ in that the inclusive intensifier carries an additional presupposition that makes the sentence containing it to be interpreted as a premise, reason or explanation for another proposition in the surrounding context. This can be seen in (39B), which becomes degraded when the proposition *he said that it was hard* is removed. I will discuss this point more extensively later on, but for now note that felicity is maintained when the same expression is removed from (41B).

　　　The inclusive intensifier differs from the exclusive in two further respects, which have to do with their distribution. The first one has already been illustrated in previous chapters. Whereas in English the exclusive intensifier can only occur after the verb, the inclusive intensifier can occur both between the auxiliary and the main verb and after the main verb. The second difference of the two adverbial intensifiers is related to their potential antecedent. In the previous section we have seen that the exclusive intensifier may interact with either a subject or an object in Dutch. In this respect, the inclusive intensifier is more restricted; it can only interact with a subject. No matter how hard we try to fix the discourse in a way that is required by the inclusive intensifier, its interaction with an object is impossible, both in English and Dutch, as illustrated in (42) and (43) respectively.

(42)　　A: Bill has raised three girls quite comfortably.

　　　# B: Bill has raised [three boys]$_1$ quite comfortably themselves$_1$, but this does not mean that they shouldn't thank him.

(43)   A: Willem heeft zijn drie meisjes   met gemak groot gebracht

             Bill   has   his   three daughters with ease   tall   brought

             'Bill has raised his three daughters quite comfortably'

    * B: Willem heeft zijn [drie jongens]$_1$ met gemak zelf$_1$ groot gebracht,

             Bill   has   his   three boys   with ease   themselves tall   brought,

             … so I guess he is quite gifted with raising children.

             'Bill has raised three boys quite comfortably themselves'

After considering and rejecting two attempts (i.e. König and Siemund 1996; Siemund 2000) to explain the subject-orientation of the inclusive intensifier, Gast (2006: 113) suggests that the "inclusive self requires a head DP with a topical status […]. Typically, topics are also subjects", hence its subject-orientation. I find Gast's proposal plausible; however, this cannot be the whole story because, as it stands, it creates another question, namely why does the inclusive intensifier require a topical antecedent?[37] A concomitant question is what makes the antecedent topical?

    Starting from the latter, the topical status of the antecedent can be traced to the way the discourse is structured in the presence of the inclusive intensifier. It has repeatedly been observed that the inclusive intensifier makes the sentence it is found in extremely context dependent in the sense that it needs another event of the same type salient in discourse. I emphasize that this other event must be interpreted as a spatiotemporally *different* event from the one the intensifier is found in. This is different from what we find with the exclusive intensifier, where the alternative sentence is a different description of the same event. Now, given this state of affairs, the antecedent of the inclusive intensifier is deemed to be interpreted as a topic, in particular a switch topic. Consider the discourse that the inclusive intensifier is found in. Taking (39) as a reference point, speaker A provides information about the subject *Bill*, namely the predication that he has raised three kids. Given our definition of topics (see 3.2), *Bill* qualifies as a (sentence) topic. Speaker B responds to A's statement by changing the topic from *Bill* to *John* and providing information about the latter. Additionally, B's response does not negate A's utterance. These two combined render *John* a switch topic, which, according to Neeleman & Vermeulen 2012, is an instance of contrastive

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[37] Even though topical expressions tend to be subjects, it is true that this is only a strong tendency as there can be topical internal arguments as well. Thus, the strict subject-orientation of the inclusive intensifier cannot be attributed only to the topical status of its antecedent.

topic.[38] More generally, the antecedent of the intensifier can be characterized as a (contrastive) topic in virtue of the particular way the discourse is always structured and the fact that there is no negation of the alternative. Of course, one would like to know why the discourse is always structured as such and why there is never negation of the alternative. I take up this question in section 4.9.

Moving on with the first problem, namely why the inclusive intensifier requires a topical antecedent, unfortunately, I can only provide some directions towards a solution but not a complete explanation. It has previously been claimed that there are significant parallels between contrastive topic constructions and stressed additive particles (Altmann 1976; Jacobs 1983; i.a.). Kowalski (1992), and then Krifka (1999), capitalize on this observation and propose the following (see Féry 2008 for an opposite view):

(44) **Contrastive Topic[39] hypothesis**

The associated constituent of stressed postposed additive particles is the contrastive topic of the clause in which they occur. (Krifka 1999: 113)

To elaborate on (44), Krifka (1999) observes that in German all particles, exclusive (e.g. *nur* 'only'), additive (e.g. *auch* 'also') and scalar (e.g. *sogar* 'even'), may precede or follow their associated constituent. However, when *auch* follows its associated

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[38] If switch topics are indeed a sub-variety of contrastive topics, there should be an unwillingness/inability inference on the part of the speaker to provide information about a salient alternative referent. In (39), speaker B should be understood to be unwilling/unable to provide information about *Bill*. This inference is not there. This could be because switch topics are *not* a sub-variety of contrastive topics (contra Neeleman & Vermeulen 2012) but simply topics. Another possibility, which I consider more realistic, is that switch topics are indeed a sub-variety of contrastive topics but Neeleman & Vermeulen (2012) are wrong in claiming that the unwillingness/inability inference is a defining characteristic of contrastive topics. This inference arises in certain contexts in which switch topics can appear, but not in every context. When people want to elicit a contrastive topic, they usually provide a context in which speaker A asks information about a referent *x*, but speaker B provides information about some other referent *y*.

a) A: Tell me about Bill. Did he pass the exam?
   B: Well, John passed the exams,…

In the exchange in (a), A introduces *Bill* as the topic of discourse and B switches the topic from *Bill* to *John*. The unwillingness/inability inference is clear here. This may be due to the explicit request of A to elicit information about *Bill* and B providing information about *John* (instead of what B was asked for). Note that a similar context is usually provided to elicit another prominent type of contrastive topic, the narrow down topic. The lack of the unwillingness/inability inference in the context that the inclusive intensifier is found may thus be attributable to the fact that no explicit request for information about the alternative referent is ever made.

[39] Krifka's (1999) conception of contrastive topics is slightly different from the one adopted here, that of Neeleman & Vermeulen (2012). However, the two are similar in that they both define contrastive topics as referring "to something about which information is required. But they are also contrastive, that is, they come with alternatives-there are other things about which information is required" (Krifka 1999: 113).

constituent it must be stressed. This is not the case for the exclusive and scalar particles, even though it is possible to stress the former for purposes of highlighting their meaning. In English, French, Czech and Hebrew exclusive and scalar particles typically precede their association, whereas additive ones may or must follow it, depending on the particle, in which case they must be stressed (see Krifka 1999 for the relevant data). Krifka motivates the hypothesis in (44) on the basis of the following observations in German: a) sentences with stressed postposed additive particles exhibit similar stress patterns as sentences with contrastive topics (but without the particle); b) associated constituents that are syntactically complex often lead to a marked decline in acceptability (Altmann 1976: 276); c) associated constituents of stressed additive particles are rarely found in the so-called middle field, that is, following the finite verb (Altmann 1976: 259). Krifka interprets this tendency by appealing to the tendency of topics in German to occur sentence-initially.

Let us see whether these observations apply to English. In the absence of experimentally confirmed phonetic evidence, I will avoid making any judgments regarding the observation in (a) and concentrate on (b) and (c). With regard to (b), Krifka does not elaborate on what he means by 'complexity' of the associated constituent, even though the examples provided imply that 'complex' is presumably used to characterize a modified referential phrase (e.g. *Auf die ohnmächtige Öffentlichkeit im eigenen Lánd* 'the powerless public in his own country'). I will use syntactically similar phrases for checking (b) in English. (c) is German specific, but we already know that there is a similar tendency in English having to do with topics being in the subject position. Thus, the prediction for English is that stressed postposed additive particles in English, like *too* and *also*, should only be able to (or prefer to) associate with a syntactically non-complex subject.[40] (capitals indicate stress)

(45) A: Bill visited the exhibition.

   B: John$_1$ visited the exhibition TOO$_1$.

(46) A: John visited the exhibition.

   B: John visited [the museum]$_1$ TOO$_1$.

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[40] The judgments are due to native speakers of British English. I have not been able to replicate the pattern with speakers of American English.

(47) A: John visited the exhibition.

B: John [walked along the Thames]$_1$ TOO$_1$.

(48) A: John visited the exhibition.

B: [The man sitting next to Mary]$_1$ visited the exhibition TOO$_1$.

(45B) is in accordance to our prediction as *John* is indeed a non-complex subject and can therefore function as a topic. (46), (47) and (48) are all unexpected. In (46B) *too* associates with an object; in (47B) *too* associates with a VP; in (48B) *too* associates with a complex subject. What happens though when we replace *too* with *also*, whose distribution is more German-like in that it can both precede (unstressed) and follow (stressed) its associate?

(49)   A: Bill has visited the exhibition.

B: John$_1$ has ALSO$_1$ visited the exhibition.

* B': Also$_1$ John$_1$ has visited the exhibition

(50)   A: John has visited the exhibition.

? B: John has visited [the museum]$_1$ ALSO$_1$.

B': John has also$_1$ visited [the museum]$_1$.

(51)   A: John visited the exhibition.

? B: John [walked along the Thames]$_1$ ALSO$_1$.

B': John also$_1$ [walked along the Thames]$_1$.

(52)   A: John has visited the exhibition.

B: [The man sitting next to Mary]$_1$ has ALSO$_1$ visited the exhibition.

* B': Also$_1$ [the man sitting next to Mary]$_1$ has visited the exhibition.

(49B), (50B) and (51B) are more in accordance with our expectations. These utterances are degraded when postposed *also* associates with an object as in (50B) or a VP as in

(51B), but not when it associates with a subject as in (49B).[41] On the other hand, preposed *also* is fine in all cases, except when it associates with a subject. This may be due to distributional restrictions of the particle itself (i.e. it cannot occur so high up) or something that has to do with the discourse status of the subject. The contrast between preposed and postposed *also* is interesting because there seems to be complementary distribution between the two in terms of the constituents they can associate with. I will not explore this further because I am mostly interested in postposed *also*. With the data in (45) - (48) in mind, there is also a contrast between *too* and postposed *also*. The degradation of postposed *also* when associated with a VP or a direct object is in accordance with Krifka's hypothesis in (44). However, there is a difference between English *also* and German *auch* with respect to the inability of the latter to interact with a 'complex' subject in its postposed occurrence. I do not think that this negatively reflects on the claim in (44). This is because there does not seem to be an obvious connection between 'complexity' (which I perceive to be related to the actual length of the constituent) and topicality. That is, why would 'complexity' of a constituent x influence the potential of x to be topical? I am not aware of any evidence bearing on such claim.

(44) is therefore able to capture the English data, on the condition that (44) is interpreted as to apply only to additive particles that are in principle able to both precede and follow their associate,[42] such as *also*. (44) does not make any claims about particles like *too*, which are only able to follow their associate. We could come up with an economy story as to why *too* does not behave similarly to postposed *also* in the possibility of interacting with topics only, but this is not of direct interest here.[43]

Going back to the inclusive intensifier, the discussion above is intended to provide some directions as to why the inclusive intensifier is only able to associate with a subject, which is a switch topic (and thus a contrastive topic, according to Neeleman &

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[41] Note that the infelicity of (50B) and (51B) cannot be due to distributional restrictions on *also*. König (1991: 13) provides the following example indicating that *also* can appear after the VP.

a) FRED is coming álso.

[42] I'm not sure whether Krifka intended (44) to be understood in this way, as all German particles may precede or follow their associate. That is, German does not have a counterpart of *too*, which is always postposed. The English data show that (44) cannot apply to additive particles that are always postposed.

[43] This could run as follows: in English, postposed additive particles are always stressed. Loosely speaking, the primary function of an additive particle is to express that "the predication holds for at least one alternative of the expression in focus" (Krifka 1999: 111). English has a specialized preposed additive particle, that is *also*, and a specialized postposed one, that is *too*. For reasons unkown to me, *also* is more flexible in that it can also be postposed, hence stressed. Economy might force such a marked configuration to be balanced out with a specific communicative effect, which is the interpretation of the particle's associated constituent as a contrastive topic.

Vermeulen 2012), and not any other argument. The parallels between the intensifier and postposed *also* must be obvious by now; both are additive, postposed and stressed, and able to only interact with subjects because of their contrastive topic discourse status. This is not to say that the two elements are exactly the same; after all the judgments of sentences containing postposed *also* interacting with an object are not as degraded as sentences with an inclusive intensifier interacting with an object.[44] However, one simply cannot overlook the similarities of the two. The inclusive intensifier's potential to interact with contrastive topics only is not an isolated phenomenon. An explanation of why postposed *also* can only interact with contrastive topics should also provide insights to the subject-orientation of the inclusive intensifier.

The line of reasoning put forth here further explains the observation that the intensifier's antecedent needs a B-accent in the absence of the inclusive intensifier. As repeatedly pointed out, a B-accent in English is suggestive of a contrastive topic marking of the constituent carrying it. Relevant examples illustrating this are found below.

(53) A: Bill has raised three kids.

   B: John has himself raised three kids, and he said that it was hard.

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[44]There is an even more obvious difference between the two, namely the fact that the intensifier always follows its associate constituent (i.e. antecedent), whereas *also* may both precede and follow its own associate. In this respect, the inclusive intensifier is more similar to *too*. But we have seen that *too* does not behave similarly to the intensifier (or postposed *also*) in terms of possible associated constituents. This is the reason why we had to restrict the domain of application of the hypothesis in (44) to those additive elements that are both able to precede and follow the associate. Initial appearances may suggest that (44) should not make any predictions about the inclusive intensifier's associate constituent either. Nevertheless, there is one crucial respect that the inclusive intensifier differs from *too* that places the former in the same group as *also*. In section 4.9 I will claim that the inclusive intensifier, which denotes a function, interacts with the event *e* and the nominal antecedent *x* by taking *e* and *x* as its input. The inclusive intensifier will thus be claimed to be similar to predicational adverbs, like *rudely*, which also interact with the event and a nominal referent. Consider the examples below containing *rudely*.

a) Rudely John left the room.
b) John rudely left the room.

(a) and (b) can have the same 'clausal' interpretation, namely that it was rude of John to leave the room. *Rudely* may have a manner interpretation as well in (b), namely that *John* left the room in a rude manner, but this is not of interest here. What matters is that a clausal subject-oriented adverb may precede or follow its orientation, such as *John* in (a)-(b). A subject-oriented adverb is thus similar to *also* in this respect. (44) should thus make predictions for a potentially additive clausal subject-oriented adverb. It certainly does make the correct predictions for the inclusive intensifier, which also interacts with the event and a nominal referent. The reason that the inclusive intensifier can only follow its associate referent is entirely independent from this sort of interaction. As a syntactically dependent element, it must be locally c-commanded by its associate nominal constituent (see chapter 5). Linearly speaking, this means that the intensifier must follow its associate nominal referent.

(54) A: Bill has raised three kids.

B: Well, _John_ has raised three kids, and he said that it was hard.

If stressed additive elements like the inclusive intensifier and postposed *also* are able to only associate with contrastive topics, then it is no surprise that the antecedent of the intensifier takes a B-accent in the absence of the intensifier. Another question is why the antecedent lacks such intonation in the presence of the intensifier. We could adopt Krifka's (1999:118) interpretation of a similar state of affairs in relation to stressed additive particles:

> "We have seen with a number of examples that postposed stressed additive particles naturally associate with a constituent that is a contrastive topic of their clause. We also have seen cases in which the associate need not be marked as a contrastive topic. This suggests that stressed additive particles may be able to indicate a contrastive topic without the helping hand of any contrastive topic intonation. A development along the following lines is suggestive: First, contrastive topics can associate with stressed additive particles […]. Second, a construction pattern consisting of a clearly marked contrastive topic and a stressed additive particle gets established. Third, the marking of the contrastive topic becomes redundant, to a certain degree, as stressed additive particles occur more or less exclusively with contrastive topics, and the context of utterance can determine which constituent is a contrastive topic. This allows for cases in which the associates of stressed additive particles cannot receive the usual marking as contrastive topics"

The punch line of Krifka's view is that contrastive topic intonation becomes redundant in the context of stressed postposed particles because they are specialized in occurring in contrastive topic constructions. While this may be an accurate interpretation for postposed *also*, it cannot be true for the intensifier. This is because the intensifier may also occur in other constructions, which would best be characterized as focus, contrastive focus or topic (see for instance section 3.3.2) and the antecedent still remains destressed. My interpretation of the intonational contrast of the subject in (53) and (54) is on a par with the case of the destressed antecedent of the adnominal intensifier. Recall the claim made in the context of the adnominal intensifier in 3.3.2.2 that the intensifier marks its antecedent as given (see Schwarzschild 1999 for a definition of 'giveness'). Assuming that this applies to the inclusive (and exclusive) intensifier as well, and that 'giveness' forces destressing, then the contrast in (53) and (54) is understood.

Before moving on with discussing the nature of centrality effect the inclusive intensifier imposes on its antecedent, I would like to briefly go back to the additive effect accompanying all its occurrences. Consider again (54), repeated as (55).

(55) A: Bill has raised three kids.

B: Well, _John_ has raised three kids, and he said that it was hard.

(55) is comparable to a discourse containing the inclusive intensifier (see for instance (53)). Similarly to the discourse with the intensifier, (55) delivers an additive inference. This certainly comes as no surprise as the discourse consists of two true and distinct events of the same type. This is an indication that the additive inference can in principle be due to the way the discourse is structured in the presence of the inclusive intensifier (see Gast 2006 for an identical conclusion).

4.3.2.   On the nature of centrality imposed by the inclusive intensifier

We have seen that postposed *also* and the inclusive intensifier are similar in various respects. I will claim though, that the two differ in at least one crucial respect. On a par with the adnominal and exclusive intensifiers, the inclusive intensifier requires its antecedent to be central, albeit in a different manner. I state right from the start that empirical support for this claim is harder to come by as compared to the other instances of the intensifier. In addition to this, the intuitions are not as clear as one would desire. For these reasons, the analysis provided in this section should be seen as a tentative attempt towards reaching a better understanding of this instance of the intensifier. My main motive for going down this route is best summarized by Gast (2006: 152), who points out that "in all […] occurrences of inclusive SELF, we can sense the notion of centrality".[45] A similar sense of centrality is not present in constructions with postposed *also*.

Consider again two representative examples of the adnominal and exclusive intensifiers.

(56) A: The director's secretary wrote the letter to the council.

B: No, the director himself wrote the letter. (adnominal)

(57) A: Bill wrote the letter for John.

B: No, John wrote it himself. (exclusive)

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[45] But recall from section 2.3 that Gast (2006) chooses to describe the meaning of the inclusive intensifier in different terms.

(56B) contains an instance of the adnominal intensifier. We know that the intensifier requires a discourse central referent as its antecedent because only *the director* can act as such; *the director's secretary* cannot. (57B) contains an instance of the exclusive intensifier. Again, the intensifier can only interact with *John*, and not *Bill*, because it requires an antecedent that is central in an event related manner. These facts were taken as evidence for the centralizing function of the adnominal and exclusive intensifiers. The same strategy cannot be applied though to the case of the inclusive.

Consider the example below.

(58) A: The director has raised three kids.

    B: The director's secretary has herself raised three kids, and she said it was hard.

(58) illustrates that the inclusive intensifier does not centralize its antecedent in the same way that the adnominal one does; the former can interact with either *the director* or *the director's secretary* whereas the latter can only interact with *the director*. The inclusive intensifier does not centralize its antecedent in the same manner as the exclusive either. This can already be understood from (58). There is no understanding that *the director's secretary* is in any way involved in (or thematically related to) the event in (58A) but, nevertheless, it can act as the inclusive intensifier's antecedent. In fact, (59) illustrates that the inclusive intensifier's antecedent may be completely discourse new.

(59) A: Bill wrote a letter for John.

    B: Peter has himself written a letter for John, but he hated it.

What can be concluded with certainty is that the inclusive intensifier is different from the adnominal and exclusive intensifiers in terms of centralizing the antecedent. The question is of course whether it centralizes its antecedent to begin with. Let us first take a closer look at the intuitions. Siemund (2000) suggests that the character associated with the inclusive intensifier is perceived as the prototypical agent of events of the type denoted by the predicate. The more general intuition found in the literature is that the inclusive intensifier is taken to characterize its antecedent as having gained particular experience or possessing special knowledge as the agent of the events in question (Hall

1965; Plank 1979; Siemund 2000; a.o.).[46] Native speakers I have consulted with seem to confirm these intuitions. In the case of (59) this means that *Peter* is understood as the prototypical agent of writing letters, or that *Peter* has gained particular experience/possesses special knowledge with respect to this kind of event.[47] Given that the use of any intensifier induces a set of alternative referents to its antecedent, the null hypothesis is that in (59) *Bill* is contained in the set of alternative referents to *Peter*.

On the basis of the above considerations, I assume that the inclusive intensifier requires an antecedent that is central in an event-related manner. In particular, I hypothesize that it interacts with a referent that ranks higher than a salient alternative referent with respect to the criterion of 'prototypicality for/expertise in agency in an event'. I expand on this later on, but it is sufficient for our discussion at this point.

In order to show that the intensifier centralizes its antecedent against the salient alternative referent in the adnominal and exclusive cases, we adopted the following strategy: a) take a felicitous discourse with the two sentences S_1 and S_2; S_2 must contain the adnominal/exclusive intensifier with x as its antecedent; S_1 must contain y, the alternative referent of x; b) choose to intensify y instead of x in S_2, while making the necessary changes in discourse in order to ensure that infelicity is indeed due to the centralizing effect of the intensifier (e.g. switching the positions of x and y in the adnominal case). The result of step (b) was always infelicitous. Do we expect something similar to happen in (59)? I think the answer to this must be negative. First note that the hypothesized scale of comparison (i.e. prototypicality for/expertise in agency in an event) requires wider knowledge than that provided in (59). A referent x can be characterized as a prototypical agent of some type of event against y only if both x and y's histories with respect to being the agents of this type of event are known. Thus, if the inclusive intensifier characterizes its antecedent x as being a prototypical agent of the type of event under discussion compared to the alternative referent y when these histories are not readily available to the interlocutors, then we do not expect the switching of the two alternative referents in (59) to make a difference in felicity. This is indeed what happens.

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[46] The reader is referred to Siemund (2000) for more examples of the inclusive intensifier.
[47] The inclusive intensifier can occur in the context of any type of predicates, including statives and predicates of experience (e.g. afraid of). Thus the use of the term 'agent' should be understood loosely, to refer to the subject of the sentence, that is, the argument that consistently interacts with the inclusive intensifier.

(60) A: Peter has written a letter for John.

B: Bill has himself written a letter for John, but he hated it.

In the absence of a particular context that qualifies either *Peter* or *Bill* for prototypical agency for writing letters, the choice of either *Peter* or *Bill* as the antecedent simply leads to the accommodation of the fact that one of them is central against the other with respect to prototypical agency in some event type. This kind of accommodation is licensed by the fact that it is not contradicted by anything in the immediately salient context (as it would happen in the adnominal and exclusive cases). With these remarks in mind, consider the example below.

(61) A: Einstein was such a great physicist. Because of this he became really famous.

B: John is himself a physicist, but I wouldn't call him famous!

It is generally accepted that *Einstein* (the alternative referent of the intensifier's antecedent) is a prototypical physicist, at least when compared to a less successful physicist like *John*. (61B) should therefore be infelicitous, but it is not. The curious fact is that, despite *Einstein*'s status as a prototypical physicist, the inference that comes out from (61B) is the same as before; that is, *John* is understood to be an instance of a prototypical physicist with a significant amount of expertise in physics. Two possibilities arise from this, which are mutually exclusive: it is either a) that *Einstein* is in fact not a referent contained in the set of alternatives of *John,* or b) that *Einstein* is indeed an alternative referent of *John*, but, for some reason, the inclusive intensifier is particularly flexible in choosing its antecedent; it is as if the use of the inclusive intensifier disregards the status of the alternative referent.

The possibility in (a) implies that the first proposition in (61A) is *not* salient in discourse in virtue of the IS-marking of the intensifier in (61B). Recall that the inclusive intensifier is felicitous only if there is a proposition expressing a similar event salient in discourse. This requirement would thus remain unexplained (and accidental) on the view expressed in (a), and is therefore dismissed. In line with the null hypothesis that the salient agent (e.g. *Einstein* in (61A)) is included in the set of alternatives of the intensifier's antecedent, I suggest that the inclusive intensifier is flexible in choosing its antecedent because it forms part of the speaker's communicative strategy in expressing her personal view on some matter that is salient in discourse.

In section 4.3.1 we have seen that a proposition containing the inclusive intensifier is interpreted as a premise/reason/explanation for another salient proposition in discourse. In the example below, repeated from (39), the proposition with the intensifier is interpreted as the premise for the proposition that follows, *he said that it was hard*. Note that the presence of this second proposition is obligatory.

(62) A: Bill has raised three kids.

       B: John has himself raised three kids, # (and he said that it was hard).

Some further examples are provided below.

(63) Max knows what it means to be blind because he is blind himself. (Siemund 2000: 122)

(64) A: Could you lend me some money?

       B: Sorry, but I'm a little short myself. (Siemund 2000: 122)

(65) Mr Gillis continued writing and when Alec turned to me I could see the strain on his face. I had no time to feel sorry for him though because I was under considerable strain myself. (Gast 2006: 140)

(66) How can Fred complain about the odour of other people when he smells a little himself? (König 1991: 93)

In (63) the proposition with the intensifier is interpreted as the premise for *Max knowing what it means to be blind*. In (64), it is interpreted as the premise for the rejection of A's request. In (65) it is the premise for explaining why the speaker had no time to feel sorry about some other referent. Finally in (66) it is the premise for asking why *Fred* complains about the odour of other people. In all cases, the speaker tries to make a point by putting forward an argument consisting of two propositions. The argument has the structure in (67), in which α corresponds to the proposition containing the intensifier and β corresponds to the proposition for which α is interpreted as a premise:

(67) Since α, then β.

I would like to suggest that the argument in (67) always takes place in response to some other salient argument of the same form, whose premise is the alternative proposition

induced by the use of the intensifier. (62B) for instance constitutes a response of the following.

(68) If Bill raised three kids, then Bill must have found it hard.

Given that (62B) can occur in the context of a generic statement (see (69)), which is semantically equivalent to an if/then clause, it would be more accurate to say that (62B) constitutes a response to a generalization of the argument in (68) (see (70)). Notice that the very fact that (62B) can occur in the context of a generic statement is in itself evidence for the suggestion put forward here.

(69) A: Raising kids is hard.
    B: John has himself raised three kids, and he (also) said that it was hard.

(70) If X raises three kids, then X will find it hard.

The underlying argument in (70) becomes salient in virtue of the fact that (62A) expresses that some referent has acted as the agent of the type of the event contained in its premise.

    Similarly to (62B), the examples in (63), (64B), (65) and (66) are assumed to constitute responses of the underlying arguments in (71), (72), (73) and (74), respectively.

(71) If X is blind, then X knows how it is to be blind.

(72) If X is short of money, then X asks for money from Y.

(73) If X is under considerable strain, then X has no time for anything.

(74) If X smells, then X cannot complain about Y's odour.

All instances of the intensifier we have seen in (62B) - (66) occur in an argument that agrees with the underlying arguments in (70) - (74). Restricting myself to the first three examples, (62B) agrees with the assumption that raising kids is a hard thing to do. (63)

agrees with the assumption that first hand experience of blindness leads one to know this disability well. (64B) states that the subject is also short of money and therefore in need of it (let alone being in the position to lend). Notice however that the (62B), (63) and (64B) could instead be used to contradict the underlying argument. This is shown below.

(75)   A: Bill has raised three kids.

B: John has himself raised three kids, but he found it really easy.

(76)   Max does not know what it means to be blind, even though he is blind himself.

(77)   A: Could you lend me some money?

B: Even though I'm a little short myself, I never ask for money.

The interpretation of such examples is stronger though than a simple agreement or disagreement with the underlying argument. The intuition is that the speaker tries to strengthen or weaken it. Of course, this interpretation is not irrelevant to the fact that the speaker provides 'real' evidence in favor/against the underlying argument. In (75B) for instance, B asserts that she is aware of an agent who raised three kids, but that his experience is *not* in accordance to the generally held view expressed by the underlying argument. The question is whether the strengthening or weakening of the underlying argument is only due to providing evidence in favor/against it, or that the presence of the inclusive intensifier also contributes to this interpretation. We can check this by comparing (75B) with a variation of it with an additive focus particle.

(78)   A: Bill raised three kids.

B: John raised three kids too, but he found it really easy.

Intuitively, (75B), but not (78), comes across as (if it constitutes) decisive evidence against the contextually salient alternative. This can be understood on the basis of the centralizing effect of the intensifier. Assuming that in (75B) the intensifier characterizes its antecedent as ranking higher against the alternative agent on the 'prototypicality for/expertise in agency in raising three kids', then the argument x provided by speaker B will have additional force against the (underlying) contextually salient argument y. This

is because B does not only express that she is aware of an agent's experience (i.e. the task of raising three kids being easy) that goes against y, but, in addition, that this experience corresponds to the prototypical agent of raising three kids. If y does not even capture the prototypical cases, then y must (most certainly) be false. The same considerations, but in the opposite direction, apply when the speaker uses the inclusive intensifier as part of an argument x that strengthens y. In (62B) for instance, B does not only express that she is aware of an agent's experience (i.e. the task of raising three kids being hard) that agrees with y, but, in addition, that this experience corresponds to the prototypical agent of raising three kids. If y captures the prototypical cases, then y must have at least some truth in it.

Now, suppose that the speaker S wants to convince her interlocutor that, contrary to general belief, raising kids is an easy task. In doing so, S would presumably adopt the most effective communicative strategy at her disposal. If the inclusive intensifier is a tool that has the communicative effect of strengthening or weakening a contextually salient argument, then it can be used by S in her potential response to some other salient argument. The inclusive intensifier is thus susceptible to S's intentions and preferences. The particular centralizing effect that the inclusive intensifier imposes on its antecedent can be used as part of a communicative strategy that best serves the interests of S. This explains why there are no restrictions on the status of the antecedent's alternative referent (as opposed to the adnominal and exclusive cases). The status of the alternative referent does not matter because the inclusive intensifier's centralizing effect serves some other purpose, that of enforcing the views of S. S can choose to raise the status of the antecedent into a prototypical agent of the event e, even contrary to generally accepted views regarding the status of the alternative agent (see the *Einstein*-example in (61)), in order to forcefully communicate a point. The question is why is this possible in the inclusive case but not in the adnominal and exclusive cases? Consider again two examples from before.

(79) A: John built the house with Bill's help.
      B: No, John built it himself.

(80) A: John's brother built this house.
      B: No, John himself built it.

Let us first consider (79A). The speaker expresses two things of relevance here. First, both *John* and *Bill* contributed to the building of the house. Second, *John* is central against *Bill* because the former is more responsible than the latter for the building of the house. Crucially, (79B) takes for granted that *John* is central against *Bill* in terms of responsibility for building the house. (79B)'s disagreement is only with respect to the first point A makes, that is, who contributed to the building. (80) is similar. (80A) expresses that *John's brother* is the cause of building the house as well as that *John* is identificationally central against *his brother*. Again (80B) takes for granted that *John* is identificationally central against *his brother*, and only disagrees with the first point A makes, that is, who is the causer of the building.

These last remarks are intended to emphasize the fact that in the adnominal and exclusive cases the centrality/peripherality of the alternative referents is already set in the alternative proposition. The choice of the antecedent in the ensuing proposition depends on the classification of referents as central/peripheral in the alternative. Let us now consider the inclusive intensifier in the context of (75), repeated below.

(81)   A: Bill has raised three kids.

   B: John has himself raised three kids, but he found it really easy.

(81A) expresses that the agent of raising three kids is *Bill*. Contrary to the contexts that the adnominal and exclusive cases are found, by the end of the utterance in (81A) *Bill* is not understood to be less or more of a prototypical agent of raising three kids. Put differently, *Bill* is not classified as central or peripheral against some other agent with respect to the 'prototypicality for/expertise in agency in raising three kids'. Such scale is not even considered. This allows the speaker uttering (81B) to bring this scale into discourse and at the same time to classify *John* as a prototypical agent of the event in discussion against *Bill*, with the communicative effect discussed earlier. Such a conversational move would not result in a contradiction because *Bill* has not previously been ranked higher than *John* on the scale at issue. However, in the adnominal and exclusive cases, in which the ranking of alternative referents is already set by speaker A (i.e. in the alternative proposition), speaker B is only able to felicitously use the intensifier by implicitly adhering to the previously set ranking. If B attempts to reverse the ranking of the alternative referents by intensifying a referent *y* that has previously been classified as peripheral (e.g. *Bill* instead of *John* in (79)), then *y* will be left

without salient peripheral referents, in contradiction to the requirement for a central antecedent (example (9), section 4.2.2.1, demonstrates this point).

The conclusions of this section are summarized below.

(82)
The inclusive intensifier imposes centrality on *x* against *y* wrt the event(s) *e* under discussion. Centrality is calculated according to the relative prototypicality for/expertise in agency in *e*.

<div align="center">
prototypicality for/expertise
in agency in *e*
←
x   *y*
</div>
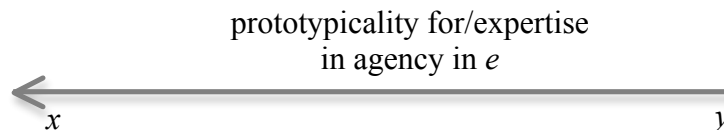
4.4. Different event-related centralities

We have seen that the inclusive intensifier centralizes its antecedent in an event-related manner. In particular, the antecedent must be ranked higher than the alternative referent in terms of 'prototypicality in agency in *e*'. Given that the exclusive intensifier also imposes an event-related centrality, albeit in terms of different event-related criteria, we would like to know whether there is a further distinction to be made.

In section 4.2.2 we have seen that the exclusive intensifier centralizes its antecedent in terms of three event-related criteria, 'responsibility for thematic role R in *e*', 'benefit from R in *e*' and 'malefit from R in *e*'. It was claimed that the common thread unifying these three comparison criteria is the fact that they all have a thematic flavor. This claim was supported by the fact that they are referent-event relations that may be encoded by a predicate. Thus we were able to find syntactically selected DPs whose relation to the predicate can be characterized as one of responsibility, benefit or malefit. With this in mind, we want to ask ourselves whether there are any syntactically selected DPs whose relation to the predicate is characterized as one of prototypicality in role R (which is, consistently, a role of *agency* because the inclusive intensifier is invariably subject-oriented). To my knowledge, there is no predicate that characterizes its agent as the expert agent for the event denoted by the predicate. In fact, it would be quite odd to find such a thematic relation, given that it expresses a generalization over a set of events. The characterization of a referent *x* as a prototypical agent immediately makes reference to a set of events e^{+} whose constituent events e_1, e_2, e_3, e_n, share a specific property; what is frequently referred to in the literature as an event type. Judging *x* as a

prototypical agent of e^+ is an expression of regularity in the world, which crucially does not depend on the spatiotemporal, or episodic, occurrences of the events contained in e^+. This is reminiscent of generic/habitual sentences, as exemplified below.

(83) Mary eats oatmeal for breakfast. (Carlson 2005)

An important characteristic of generic sentences is that their truth is not dependent on time and place. (83) only asserts a regularity in the world, that of *Mary* eating oatmeal for breakfast, even though the truth of such statement depends on the truth of multiple episodic occurrences of *Mary* eating oatmeal (see Carlson 2005 for a discussion). The sentences in which we find the inclusive intensifier are not necessarily generic. Nevertheless, the episodic event e_1 that contains it functions as the anchor for the creation of a generic event e^+ with respect to which centrality is calculated.

Given these considerations we can say that the type of centrality imposed by the exclusive intensifier has to do with the properties of the episodic event in discussion, whereas the type of centrality imposed in the inclusive case has to do with the properties of the generic event induced by the episodic events in discussion. Below, I revise the centrality effect imposed by the inclusive intensifier in a way that makes reference to generic events (e^+).

(84)
> The inclusive intensifier imposes centrality on *x* against *y* wrt a generic event e^+ (induced by the events in discussion). Centrality is calculated according to the relative prototypicality for/expertise in agency in e^+.

prototypicality for/expertise
in agency in e^+

$\longleftarrow$

x   *y*
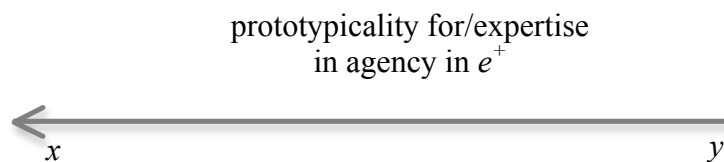
Following this more specific characterization of the centrality type imposed by the inclusive intensifier, I now attempt to be more specific with regard to the centrality type of the exclusive one. Based on the conclusion that the exclusive centrality makes reference to relations of thematic nature (see 4.2.2), I would like to suggest that the exclusive intensifier is an event *internal* adjunct, as opposed to the possibility of being an event *external* adjunct. This distinction is based on Ernst's (2002) theory of adverbial

modification.[48] In intuitive terms, event internal modification refers to the kind of modification that influences the very nature of the core event (i.e. the predicate and its arguments). Manner adverbs are an instance of event-internal modification. On the other hand, event-external modification is all types of modification that do not conform to this intuitive specification. In support of this intuition, consider the pair below.

(85) a. Rudely, Sue left.
     b. Sue left rudely. (Ernst 2002: 57)

The difference between the two instances of *rudely* may be highlighted when considering *the comparison class* of the modified event in question. Ernst (2002) suggests that *rudely* is an agent-oriented adverb, which takes two arguments, the agent and the event, and imposes a *rudeness* relation between the two. In (85a), *rudely* appears in its clausal version and in (85b) in its manner version. The meaning of the two differs; in (85a) *Sue* "is judged rude because of the event of her leaving, as opposed to other things she could have done, most especially *not* leaving: a common paraphrase is 'She was rude to leave' […]. Yet, in [(85b)], intuitively, she is judged rude on the basis of something about her leaving – some property of her leaving that we sometimes call manner, which distinguishes this leaving event from other possible leaving events. For example, she might have left without saying good-bye, slamming the door, or with a few choice imprecations on her way out." (Ernst 2002: 57). Thus, manner modification "is event internal modification in at least two ways: (a) it carves out a subset of events [(i.e. narrows down the comparison class of events of the sort denoted by the predicate)], and (b) the properties involved are in some sense intrinsic to events, in a way that (say) times are not" (Ernst 2002: 259). This reasoning is similar to Haegeman's (2006: 189) when characterizing the interpretive function of objects; "The object is an essential ingredient, it serves to narrow down the action, telling us what is the entity that is the target of the [V-ing]". Manner modification is thus event internal in as much as selection of an argument is. On the other hand, clausal modification is event external modification in that the event comparison class may consist of any kind of event (and not just those consisting of the same predicate) and the property denoted by

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[48] A similar distinction is made by Frey 2003.

129

the adverb (e.g. rudeness) is not usually manifested in the event itself (e.g. It may have been rude of Mary to leave, but she left in a polite manner).

Given the event internal – external distinction drawn above, we can be more specific regarding the exclusive intensifier's centralizing function and revise it (from (11)) as follows:

(86) The exclusive intensifier centralizes its antecedent against other referents in an event *internal* manner.

The inclusive intensifier's centralizing function is provided below for comparison.

(87) The inclusive intensifier centralizes its antecedent against other referents in an event *generic* manner.

To conclude, both the exclusive and inclusive intensifiers centralize their antecedent in an event related manner, only that the former event *internally* and the latter event *generically*.

Before moving to the next section, I would like to highlight the fact that (86) and (87) immediately explain why the inclusive intensifier is less fussy than the exclusive one with regard to the type of predication (e.g. stative, accomplishment, achievement) it can occur in. Since the centralizing function is calculated event *generically*, the exact nature of the predication it is surrounded with is not expected to be relevant.

4.5. Interim summary

Sections 4.2, 4.3 and 4.4 provided a characterization of the meaning of the two adverbial intensifiers; the exclusive and inclusive. Below I outline each one's main interpretive characteristics.

(88)   **Exclusive**

    a. Centralizes its antecedent against other referents in an event *internal* manner.

    b. Centrality is calculated on the basis of the following event internal relations: 'responsibility for thematic role R in *e*', 'benefit from R in *e*' and 'malefit from R in *e*'. (hence the *non-delegation, beneficiary* and *maleficiary* readings)

    c. Negates the alternative proposition.

    d. The antecedent can be either a subject or an object.

(89) **Inclusive**

    a. Centralizes its antecedent against other referents in an event *generic* manner.

    b. Centrality is calculated on the basis of 'prototypicality for/expertise in agency in e^+.

    c. Implies additivity, hence the alternative proposition is never negated.

    d. The antecedent is always a subject and switch topic.

    e. The proposition e_1 containing the intensifier is interpreted as the premise or explanation for another salient proposition e_2.

4.6. The semantics of adverbial intensifiers; preliminaries

This section provides an introductory picture of the approach I will follow to derive the meaning characteristics of the two adverbial intensifiers in the next sections.

    I assume that the denotation of the exclusive and inclusive intensifiers is different from, but sufficiently related to, the denotation of the adnominal intensifier. Recall from 3.3.2.1 the denotation of the adnominal intensifier. The claim was that the core-meaning contribution of the adnominal intensifier is the identity function ID on the domain of objects D_e.

(90) ID: $D_e \rightarrow D_e$

    ID $(\alpha) = \alpha$ for all $\alpha \in D_e$

The analysis suggested that the adnominal intensifier is lexically specified with ID, which takes as its input value a nominal constituent x, the antecedent, and maps it onto the same output value. This operation is exemplified below for *John himself*.

(91) ⟦[John] himself]⟧ = ID (⟦John⟧) = ⟦John⟧

The adnominal intensifier becomes meaningful only after its interaction with information structure (IS). Once it is IS marked, I claimed that it consistently induces the family of peripherality functions PER. Each PER_i operates similarly to ID in that it takes a nominal value x as its input. It differs though from ID in that its output y is not only different from its input x, but forces a peripheral interpretation on y with respect to its input x. (92) repeats from 3.3.2.1 the semantic characteristics of PER.

(92) Let α be the referent of the NP with which the intensifier is associated and let
PER = {PER_1, PER_2, PER_3, …, PER_k} be salient alternatives to ID in the given
context. Alt*(α) = {$PER_1(α)$, $PER_2(α)$, $PER_3(α)$, . . . , $PER_\kappa(α)$} will be called the
induced set of alternatives to α in D_e. Therefore, the semantics of each PER_i is as
follows:

PER_i: D_e → D_e

PER_i (α) = β for all α ∈ D_e, where β is a peripheral alternative to α in D_e.

Suppose that the application of the identity and peripherality functions onto a referent is
dependent on or mediated by the properties of the events hosting the two functions.
Such a direct dependence between the possible application of ID or PER_i onto a referent
x and the host-event *e* would result in interpreting the output referent of each function
relative to *e*. Let us focus on the case in which the event could mediate the application
of PER_i onto *x*. The application of PER_i onto *x* delivers some other entity *y* that is
interpreted as having the property of peripherality to *x*. If the event mediates the
application of PER_i onto *x,* then *y*'s peripherality to *x* would be relative to *y*'s
involvement in the event. In other words, if we assume that the event is involved in the
application of ID and PER, we have a serious potential of capturing the various
interpretive effects of exclusive and inclusive intensifiers, in particular their event-
related centrality effect on the antecedent.

Indeed, I defend the thesis that the exclusive and inclusive intensifiers are different
from the adnominal in that the application of the identity function onto a nominal value
x is mediated by the event within the scope of the intensifier. One way of cashing this
out semantically, while sticking close to the semantics of the adnominal intensifier,
would be to assume that the two adverbial intensifiers are manifestations of the identity
function taking as its input not only an individual *e* but also the event *τ* in its immediate
scope. The output however will be of a different kind, namely just an individual *e*,
whose interpretation is identical to (input) *e* relativized to *τ*. Thus, on this view, the
core-meaning of an adverbial intensifier is the identity function $ID_{adverbial}$ from the
domain of individuals D_e and domain of events D_t to the domain of individuals D_e.

(93) $ID_{adverbial}$: $D_t D_e \rightarrow D_e$

ID $(\tau, \alpha) = \alpha$ (for all $\alpha \in D_e$ and all $\tau \in D_t$)

Of course, this operation is as meaningless as it was in the case of the adnominal intensifier. The meaning contribution of the intensifier, again, becomes more substantial once it interacts with IS. Given that the IS marking of an expression results in the inducing of expressions of the same semantic type, I assume that the IS marking of an adverbial intensifier results in the inducing of a family of alternative functions $PER_{adverbial}$ which is a variation of the family of alternatives induced by the adnominal intensifier. Each $PER_{adverbial\text{-}i}$ has the same characteristics as its alternative $ID_{adverbial}$ in that it operates from the domain of individuals D_e and domain of events D_t to the domain of individuals D_e. The difference is that now the output individual e is interpreted as peripheral to the input individual relative to τ.

(94) Let α be the referent of the NP with which the intensifier is associated and τ an event. Let $PER_{adverbial} = \{PER_{adverbial\text{-}1}, PER_{adverbial\text{-}2}, PER_{adverbial\text{-}3}, \ldots, PER_{adverbial\text{-}k}\}$ be salient alternatives to $ID_{adverbial}$. Alt**(α) = $\{PER_1(\tau, \alpha), PER_2(\tau, \alpha), PER_3(\tau, \alpha), \ldots, PER_\kappa(\tau, \alpha)\}$ will be called the induced set of τ-related alternatives to α in D_e. Therefore, the semantics of each $PER_{adverbial\text{-}i}$ is as follows:

$PER_{adverbial\text{-}i}$: $D_t D_e \rightarrow D_e$
$PER_i (\tau, \alpha) = \beta$ for all $\alpha \in D_e$, where β is a τ-related peripheral alternative to α in D_e.

In this indirect manner, the intensifier centralizes its antecedent x relative to the event in its scope (and becomes meaningful).

This section only provides the most basic assumptions regarding the denotation of the exclusive and inclusive intensifiers. The most basic difference between the inclusive and exclusive intensifiers is the type of event-related centrality they impose to the antecedent. Whereas the former imposes an event-internal type of centrality, the latter imposes an event-generic one. Given the assumption that both readings denote $ID_{adverbial}$, their interpretive differences must come out from an independent source. Indeed, I suggest that the difference in meaning between the inclusive and exclusive results from the different attachment site of $ID_{adverbial}$.

In order to see the effect that the attachment site of a clausal adjunct has on its interpretation, take once again the adverb *rudely*. As already pointed out, *rudely* can have a dual interpretation, one that corresponds to event internal modification (i.e. manner) and one that corresponds to event-external modification (i.e. clausal). (For further commentary on each of these readings, see example (85) and the surrounding discussion). On most accounts, the two readings of *rudely* are not due to two different lexical entries. Instead, *rudely* denotes one lexical entry, whose attachment site determines the way it semantically modifies the event. Ernst (2002), for instance, suggests that each adverbial's distribution is determined by its *semantic* selectional requirements. He follows Discourse Representation Theory (Kamp and Reyle 1993) in allowing events and propositions to be built up from smaller events and propositions. In particular, he adopts, what he calls, the *FEO calculus* (FEO stands for Fact-Event Objects; i.e. events and propositions). In his own words, "The FEO Calculus is the set of rules for building events and propositions, starting from the basic event and constructing more complex FEOs by adding layers of adverbials, quantificational operators, aspectual operators, modality, and so on, each one either shifting the type or subtype of FEO. Each layer is added under sisterhood, that is, in a compositional, stepwise way, determined by the syntactic structure. The two basic FEO types include subtypes; for example, propositions include (at least) true propositions (facts) and propositions with no determined truth-value". The FEO calculus consists of the following rules:

(95) a. Any FEO type may be freely converted to any higher FEO type but not to a lower one, except:
   b. Any FEO (sub)type may be converted to another FEO (sub)type as required by lexical items or coercion operators.
   c. Events may be interpreted as Specified Events (SpecEvents) within PredP [(=VP)]. (Ernst 2002: 50)

(95) presupposes some sort of hierarchy for FEO types and subtypes. This is provided below.

(96) Speech-Act > Fact > Proposition > Event > Specified Event

Let us see how this theory treats the distributional and interpretive characteristics of an agent-oriented (AO) adverb like *rudely*. AO adverbs are taken to be two place

predicates taking as arguments the agent and the event, with the latter corresponding to the immediately c-commanded constituent. Ernst suggests that *rudely*'s duality in interpretation results from the selection of different FEOs; the manner (i.e. event-internal) interpretation is a result of the interaction with a *specified event* FEO and the clausal (i.e. event-external) with a *clausal* FEO (i.e. fact or proposition or event).[49] Note that the selection of a *specified event* can only take place in the VP, as indicated in the FEO calculus above (in (c)). In this way, Ernst explains why manner adverbs always occur in the VP.

Following this brief outline of how one could treat the dual reading of a clausal adjunct on the basis of one lexical entry, I would like to suggest that the exclusive intensifier results from $ID_{adverbial}$ occurring in the VP, and thus taking a *specified event* (to put it in Ernst's terms) as its input.[50] In the next section I will show that this delivers event-internal centrality. I will not make any claim for the inclusive intensifier at this point.

4.7. Semantics and Information Structure of the exclusive intensifier

Having outlined the line of analysis for adverbial intensifiers, we may now proceed with the specifics of the exclusive intensifier. As already mentioned, I assume that the exclusive intensifier is the event-internal variant of $ID_{adverbial}$. This will explain the event-internal type of centrality imposed by the exclusive intensifier. Once this is out of the way, I then explain how event-internal $ID_{adverbial}$ combines with the rest of the predicate to deliver the right alternative semantics.

In order to reach a complete understanding of the meaning contribution of the exclusive intensifier I also take a close look at its IS marking. My main objective is to show that the meaning contribution of the exclusive intensifier requires its interaction with contrast.

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[49] Facts, propositions and events are interdefinable. Thus an adverb with one lexicosemantic entry will not produce different readings for different clausal FEOs.

[50] Note that $ID_{adverbial}$ is a function, and not a predicational adverb like *rudely*. However, the stipulated effect that $ID_{adverbial}$ has on the interpretation of its output referent *x* simulates the effect of a predicational adverb taking an event *e* and a referent *x* as its arguments, with the former argument involved in the application of ID onto the latter. Admittedly, such an approach would avoid the stipulative character of $ID_{adverbial}$ and $PER_{adverbial}$ and would suggest that the adverbial intensifier is an adverb, subject to the general semantic restrictions imposed on the interpretation of adverbs. This line of analysis opens an interesting direction for future investigation. For a preliminary attempt see Constantinou (2013).

4.7.1.   Semantics

Let us begin with the exclusive intensifier's basic semantics, which I illustrate in (97). (97) is adjusted in a way that the event taken as the input of $ID_{adverbial}$ is interpreted as the most basic version of an event in terms of semantic composition (i.e. specified event in Ernst's (2002) terms). This kind of event is represented as t^*. After its interaction with IS, the exclusive intensifier ought to induce an alternative of the same semantic type. (98) expresses the semantics of this alternative, which is basically the event internal variant of $PER_{adverbial}$.

(97) Exclusive $ID_{adverbial}$: $D_{t^*}D_e \rightarrow D_e$

   $ID (\tau, \alpha) = \alpha$ (for all $\alpha \in D_e$ and all $\tau \in D_{t^*}$)

(98) Alternative of exclusive:

   $PER_{adverbial\text{-}i}$: $D_{t^*}D_e \rightarrow D_e$

   $PER_i (\tau, \alpha) = \beta$ for all $\alpha \in D_e$, where β is a τ^*-related peripheral alternative to α in D_e.

To facilitate the discussion, consider again an example of the exclusive intensifier.

(99) A: Bill built John's house.
      B: No, John built his house himself.

The question is how does the combination of (97) and (98) contributes to the meaning of the intensifier in (99B)? In short, the intensifier expresses that the event of building the house took place in the following manner: *John*, who is central against *Bill* with respect to an event internal criterion (responsibility for causation in this case), is the causer of this event (see sections 4.1 and 4.3.2 for details). This is the meaning that we need to derive.

   As repeatedly mentioned, the intensifier becomes meaningful only when it interacts with IS. Thus, it would probably be better to focus on (98). $PER_{adverbial\text{-}i}$ takes a specified event e^* and a referent x as its input and delivers a referent y as its output. Given our standard assumption that $ID_{adverbial}$ and $PER_{adverbial\text{-}i}$ apply onto the same (discourse given) referent, x stands for *John* in (99A). The application of $PER_{adverbial\text{-}i}$ onto *John* and the specified event e^* denoted by the predication in (99A) will result in

the construction of a peripheral structure to *John* relative to $e*$ in (99A); *Bill* is the referent realizing this peripheral structure.

I would like to emphasize the fact that the event that is the input of $PER_{adverbial-i}$ is classified as a specified event. This corresponds to the most basic version of the event, that is, the point of semantic composition in which the predicate minimally combines with its arguments. Changing an argument α will result in altering the way the event takes place. Similarly, combining the predicate with an adverb at this point of semantic composition, will result in a change in the way the event takes place. Manner modification results from such combination of an adverb with a predicate. Manner adverbs and arguments of the predicate are thus referred to as event-internal elements because their combination with the (specified) event results in the altering of the very nature of the event. Let us now go back to event-internal $PER_{adverbial-i}$, the output referent of which is interpreted as peripheral against its input referent relative to the properties of the event denoted by the predication (in the alternative proposition/utterance). Since it is the specified event that is involved in this process, the output of $PER_{adverbial-i}$, y, will be understood peripheral to x in an event-internal manner. This naturally imposes restrictions on the wider context, and in particular, on the way y can be understood peripheral to x. Only event-internal criteria can count as possible scales for comparing x and y.

We have previously seen that there are three possible criteria with an event internal flavor on the basis of which centrality can be calculated; 'responsibility for R in e', 'benefit from R in e' and 'malefit from R in e'. Either of these can act as (the 'content' of) the event internal criterion on the basis of which the outputs of $ID_{adverbial}$/$PER_{adverbial-i}$ will be compared. The choice between them lies in context. For instance, if the context is something like (99A), then 'responsibility for causing e' becomes salient and comparison between *John* and *Bill* (i.e. the outputs of $ID_{adverbial}$ and $PER_{adverbial-i}$ respectively) will proceed on the basis of this. If instead the context for (99B) is *Bill built this house for John* or *Bill built the house at the expense of John* then 'benefit from R in e' and 'malefit from R in e' will be salient respectively. Since the output of $ID_{adverbial}$ is understood to be central against the output of $PER_{adverbial-i}$, the former must be understood to be higher on each of these criteria compared to the latter. In this way we can understand why the intensifier always chooses the ultimately responsible/malefited/benefited referent in the event in discussion.

We still have some way to go in order to reach a complete understanding of the meaning contribution of the exclusive intensifier. First, we still need to understand why there is exclusion of the alternative referent (e.g. *Bill*) in (99). The answer to this can remain brief at this point, but see section 4.7.2 for extended discussion. The suggestion is that the alternative referent is negated because the intensifier is a CF in (99B).

The next thing we need to understand is why it is that the intensifier is IS-marked but the alternative propositions (or utterances) differ in the position of the intensifier's antecedent.[51] Let us have a closer look at Eckardt's (2001) theory. Eckardt's theory was outlined in chapter 2, section 2.2.3, but little attention was given to the adverbial variants of the intensifier. Her basic assumption is that the intensifier denotes the identity function ID, even when it is found distant from its antecedent.[52] As discussed in chapter 2, the main issue of this approach is that it does not explain the event-related centrality effects of the adverbial versions of the intensifier. Her approach predicts that the alternatives of an adnominal and an adverbial intensifier should look exactly the same; an incorrect prediction.

I think that Eckardt's account can be improved by incorporating the view developed above for the adverbial intensifier. Let us first have a closer look at Eckardt's adverbial versions of ID. Her suggestion is that in adverbial position the intensifier combines with the verb before the nominal argument ties in. To account for this order of semantic combination, the following type-lifted versions of ID are provided.

(100) Adverbial intensifier for intransitive verbs:
$\text{Lift2(ID)} := \lambda P_{(e, t)}(\lambda x.P(\text{ID}(x)))$

Adverbial intensifier for transitive verbs, subject-oriented:
$\text{Lift3(ID)} := \lambda Q_{(e, (e, t))} (\lambda y \lambda x.Q(\text{ID}(x), y))$

Adverbial intensifier for transitive verbs, object-oriented:
$\text{Lift4(ID)} := \lambda Q_{(e, (e, t))} (\lambda y \lambda x.Q(x, \text{ID}(y)))$

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[51] This is precisely why the criteria with respect to which event-related centralities are calculated make reference to a particular role held in the event. Compare for instance the criteria of 'responsible for themehood in an event' and 'responsible for an event'. The exclusive intensifier makes reference to the former type of criterion, in which the antecedent is responsible for being the theme of an event (see for instance the Dutch example in (18)) and not for the event as a whole. This is a result of the fact that the antecedent compares with alternative themes, and not just any other nominal argument.

[52] Recall however that she assumes a different lexical entry for the *without help* reading.

All these variants only reflect the different argument that the identity function is applied onto. The difference between the adnominal and adverbial intensifier is that the former operates directly on the referent denoted by the NP that it is linked to, whereas the latter does this indirectly. "The verbal predicate itself is changed into something that maps one of its future arguments onto something else before inserting it into the respective relation" (Eckardt 2001: 381).

Suppose that Eckardt is right in saying that the identity function is involved in the operations indicated in (100), but is wrong in that these operations are type lifted versions of ID. The very reason that (100) is assumed by Eckardt is that the intensifier occurs in the clausal spine, but there are reasons to believe that ID can only occur adnominally.[53] $ID_{adverbial}$, however, does occur in the clausal spine (in virtue of its need to take an event as part of its input) and is therefore a good candidate for replacing ID in (100).

(101) Adverbial intensifier for intransitive verbs:
$ID_{adverbial} := \lambda P_{(e, t)} (\lambda e\lambda x.P(ID(e,x)))$

Adverbial intensifier for transitive verbs, subject-oriented:
$ID_{adverbial} := \lambda Q_{(e, (e, t))} (\lambda e\lambda y\lambda x.Q(ID(e, x), y))$

Adverbal intensifier for transitive verbs, object-oriented:
$ID_{adverbial} := \lambda Q_{(e, (e, t))} (\lambda e\lambda y\lambda x.Q(x, ID(e,y)))$

These different versions of $ID_{adverbial}$ reflect the different argument that $ID_{adverbial}$ is applied onto while keeping stable the fact that $ID_{adverbial}$ always takes the event denoted by the predicate as its input. The IS-marking of $ID_{adverbial}$ will induce alternatives containing $PER_{adverbial-i}$ (which is an expression of the same logical type) in the position of $ID_{adverbial}$. The effect will be the following: in the case of $ID_{adverbial}$, the verbal predicate will map one of its future arguments (i.e. the antecedent of the intensifier) *x* onto something identical to *x* in an event internal manner before inserting it into the respective relation (e.g. agency). Assuming that the referent argument that $ID_{adverbial}$ applies onto is discourse given, $PER_{adverbial-i}$ will also apply onto *x*. So, in the case of $PER_{adverbial-i}$, the verbal predicate will map one of its future arguments, again *x*, onto something peripheral to *x* in an event internal manner before inserting it into the

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[53] To list a couple, a) the adnominal intensifier is interpretively different from the two adverbials, b) its occurrence in the clausal spine goes against economy (see chapter 5).

respective relation (e.g. *again* agency). In this way we can ensure the event-relatedness of the centrality effect imposed on *x*.

On the basis of these considerations, the alternative values will always occupy the position held by the intensifier's antecedent. Let us have a look at the alternative semantics of the exclusive intensifier on the basis of the example below, repeated from (99B), in which the exclusive intensifier is a CF and *x* corresponds to the causer *John*. Note that all the material apart from the intensifier is discourse given (an assumption widely shared in the literature; see, for instance, Eckardt 2001; Gast 2006; Hole 2008), either by being explicitly marked as given or by being in the background of the CF marked intensifier. $ID_{adverbial}$ and $PER_{adverbial-i}$ are represented as $ID(e,x)$ and $PER(e,x)$ in order to be explicit regarding the entities forming their input; *e* corresponds to the event and *x* to the nominal referent. The asterisk signals that the classification of the event *e* that forms part of the input of $ID_{adverbial}/PER_{adverbial-i}$ is a specified event. This is equivalent to saying that the intensifier is interpreted as an event internal adjunct.

(102) John built his house *HIMSELF*.

(103) a. $<\lambda x$ [x built his house], $ID(e^*,j)$, $\{PER(e^*,j)\}>$
    b. $\exists y$ [y ∈ $\{PER(e,j)\}$ & ¬[y built the house]].

(103) expresses to what extent the set α of contextually relevant entities (e.g. $ID(e^*,j)$, $PER(e^*,j)$) is contained in the set β of things that cause the building of the house. Two assertions are made: a) one member of α is also a member of β, and b) there is at least one other member of α that is *not* contained in β (e.g. $PER(e^*,j)$). This is essentially the effect of CF on $ID(e^*,j)$).

This comes pretty close to our intuition regarding the meaning contribution of the exclusive intensifier in (99B). It expresses that at least one alternative causer of the event, who is interpreted event-internally peripheral to *John*, is negated. Indeed, (99A) contains an alternative causer, *Bill,* who is peripheral to *John* in terms of responsibility for causing the resultant state *r* of the house being built. With the use of the intensifier in (99B), *Bill* is understood not to contribute to the coming about of *r*.[54, 55]

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[54] The story on how to derive the meaning of the exclusive intensifier provided here is based on an example in which the criterion of comparison is 'responsibility for causing *e*'. In section 4.2.2 we discovered that the intensifier's antecedent may be understood to be central with respect to two further

4.7.2.   Information Structure

Similarly to the case of the adnominal intensifier, previous work has not explored the IS marking of the exclusive intensifier in great detail. The general feeling one gets from the literature is that the exclusive intensifier is in focus. In this section, I mainly argue for the claim that the exclusive intensifier must be contrastively marked. As a consequence of this, it can be either a contrastive focus (CF) or a contrastive topic (CT). Before moving on with the discussion let me just make explicit that, contrary to their adnominal counterpart, adverbial intensifiers (i.e. exclusive and inclusive) are locally IS marked. That is, the presence of an adverbial intensifier does not render its antecedent IS-marked (which is what I claimed for the adnominal case). I take this to be a pretty straightforward assumption and do not elaborate it further.

All of the examples with the exclusive intensifier we have seen until now share the same inferences. They induce at least one salient alternative description of the same event and negate it. An example is repeated below.

(104) A: John built a house with Bill.
      B: No, John built it *HIMSELF*.

The intensifier in (104B) has the characteristics of a sentence with a CF expression, as the alternative proposition is both salient and negated (see section 3.2 for details on CF). The alternatives semantics of (104B) was provided in the previous section (see (103)).

Let us now try to (non-contrastively) focus the exclusive intensifier by inserting it in a context of a wh-question.[56]

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event internal relations, namely 'benefit from R in *e*' and 'malefit from R in *e*'. The story for these cases runs in exactly the same manner (you just need to replace responsibility with either of the two relations in the above discussion). I will not discuss them for the sake of avoiding repetition.

[55] Déchaine & Wiltschko (2002) propose an account for the meaning of the adverbial intensifier on the basis of a depictive secondary predication analysis. Such an account is an interesting possibility. At the moment, however, their account has certain incompatibilities with the basic assumptions made here. This is because they assume that the intensifier is a fully referential DP (and not just a function) that is co-referential with the antecedent, similarly to an anaphor. In addition to this however, at least the following issues arise with such an account.

a) How come the alternatives differ in terms of the position of the antecedent and not the position of the intensifier? An approach along the lines of the identity function explains this without any extra stipulations. I do not see an equally natural way of explaining this in terms of an analysis based on secondary predication.

b) Assuming that such an account aspires to capture the inclusive intensifier too, it remains a mystery as to why secondary predicates are post-verbal in English but the inclusive intensifier can also occur pre-verbally, between the auxiliary and the main verb.

[56] The choice of a *who*-question in (105A) is based on the fact that the presence of the intensifier induces alternative referents to its antecedent. Note that the question is purposefully formulated in a way that it

(105) A: Who build this house?
    # B: John built it HIMSELF.

(105B) illustrates that the exclusive *himself* cannot occur in the context of a wh-question. We can tentatively conclude that this is because it cannot be in focus.

Given the right context, the exclusive intensifier may also take a B-accent, characteristic of CTs. An example from Dutch is presented below.[57]

(106) *Context: Several American colleagues (including Mary and Angela) have worked on a project in John's department, but are now returning to the US. Every American colleague was to get a little farewell speech. John is very shy and always tries to avoid having to do or say anything in front of his staff. This time the situation is even more delicate, as he has had a fling with Angela.*

A: Zeg, hoe zit het met Angela? Wie van Jan's medewerkers heeft haar toegesproken?
B: Nou, daar ben ik niet zeker van, maar …
A: 'And what about Angela, who of John's staff has addressed her?'
B: 'Well, I'm not sure, but …'

Jan$_1$ heeft *zelf$_1$* MARIE een paar woorden toegedicht

John has himself Mary a couple words to-spoken

'John has said a couple of words to Mary himself.'

The context in (106) makes available a set of addressers and a set of addressees. Speaker A asks whether an addresser was delegated an event (by *Jan*), but instead speaker B provides information about some other addresser, *Jan*. This is a classic case of switch topic, accompanied by the usual inference of inability/unwillingness to make some other utterance. In particular, the use of the intensifier in (106B) delivers the following inferences: a) the speaker is unable/unwilling to assert whether the addressing to *Angela* was delegated by *Jan* and, b) *Jan* did not delegate the event of addressing *Marie* to some alternative referent. Given the semantics of event-internal modification contributed by the intensifier and the semantics associated with being marked as a CT, the inference in (a) is expected once we assume that indeed *zelf* is a CT in (106B).

does not make any reference to the intensifier's antecedent, *John*, as this would immediately imply that the event could be carried out by someone else that is event-internally peripheral to *John*. This would defeat the point of forcing non-salient peripheral referents to the intensifier's antecedent.

[57] A similar set up in English results in a degraded use of a CT exclusive intensifier. I do not know why this is.

Event-internal PER(e,x) will be induced leading to the consideration of alternatives in which *Jan* is event-internally central against the referent denoted by the subject. In the context of (106), *Jan* is event-internally central in virtue of him being in the position of potentially delegating the addressing to any American colleague, including *Marie*.[58] The unwillingness/inability to express whether there has been delegation of such an event comes from the meaning contribution of CTs, as discussed in section 3.2. The inference in (b) is straightforwardly explained as follows. *Jan* could have delegated the addressing of *Marie* to someone else. However, the sentence states that *Jan* is the agent of this particular addressing. This immediately implies non-delegation of the addressing of *Marie*.

The example in (106) is particularly important for our understanding of the meaning of the exclusive intensifier because there is no negation of alternatives. This is in sharp contrast to the intuition recorded in previous sections, namely that the exclusive intensifier negates its alternatives. It is also in sharp contrast to the generalization recorded in the literature, which was apparently based on a restricted set of data, namely that the exclusive intensifier is used to oppose two alternative descriptions of the same event token (which are of course mutually exclusive) (see for instance Gast 2006). (106) leads to the conclusion that the negation of alternatives is not a stable feature of the exclusive intensifier and must be a side effect of the CF marking of the intensifier. Once the exclusive intensifier is CT marked, the exclusive effect disappears. Similarly to any other CT expression, there is inducing of alternatives that denote different event tokens whose truth or falsity remains undefined.

In accordance with the conclusions drawn from section 4.7.1, below I provide the alternative semantics of the use of *zelf* in (106B). (107) states that out of the set of utterances that (eventually) consist of different agents, that are either identical or peripheral to *Jan* in an event-internal manner, the speaker is only able to assert that a referent that is identical to *Jan* in an event internal manner is the agent of addressing *Marie*.

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[58] Recall that delegation of a role R in an event *e* from a referent *x* to a referent *y* implies an increased responsibility of *x* as compared to *y* for R.

(107) a. <λx ASSERT [x heeft Marie een paar woorden toegedicht], ID(e*,j)),

   {PER(e*,j))$_1$, PER(e*,j))$_2$,..., PER(e*,j))$_n$ }>

   b. ∃y [y ∈ {PER(e*,j))$_1$, PER(e*,j))$_2$,...} & λx ¬ASSERT [x heeft Marie een

   paar woorden toegedicht](y)]

The example in (106) is crucial for one further point. We have seen that the exclusive intensifier can be either a CF or a CT. In view of this, we would like to know what decides between the two types of IS-marking. In what follows, I claim that the IS-marking on the intensifier depends entirely on the discourse status of its antecedent.

   Consider again the example in (106), but this time without the intensifier (which is optional).

(108) *Context: Same as in (106).*
   A: Zeg, hoe zit het met Angela? Wie van Jan's medewerkers heeft haar toegesproken?
   B: Nou, daar ben ik niet zeker van, maar …
   A: 'And what about Angela, who of John's staff has addressed her?'
   B: 'Well, I'm not sure, but …'

   Jan$_1$ heeft   M ARIE   een   paar woorden   toegedicht

   John   has   Mary   a   couple words   to-spoken

   'John has said a couple of words to Mary himself.'

What happens is that the B-accent in now on the subject, *Jan*. Interpretively speaking, (108B) is the same as (106B), bar the centrality effect on *Jan* (hence the question in (108A) could be just about anyone contextually relevant, such as the university's provost, and not about *Jan's staff*). Speaker A seeks information about *Jan's staff*, but instead information about *Jan* is provided; for this reason *Jan* is a switch topic. The first question that comes up is why *Jan* loses its accent as soon as the exclusive intensifier is inserted in the structure. The answer to this is the same as the one provided for the adnominal intensifier in order to explain why its antecedent remains destressed. The exclusive intensifier marks its antecedent as given and due to this it loses any prosodic prominence (see section 3.3.2.2 and chapter 6 for more details on 'giveness' and its relation to prosody). However, a comparison between (108B) and (106B) suggests that the B-accent is not completely lost, but instead, 'emigrates' to the intensifier, with the

expected consequence of inducing peripheral agents to *Jan*. But this accent 'migration' is not surprising given the fact that putting a B-accent either on *Jan* or *zelf* will have the same effect of introducing *Jan* as the new discourse topic. We can speculate that the reason that the B-accent 'emigrates' to *zelf*, instead of being completely lost, is due to the fact that this is the only way of indicating that *Jan* is a switch topic in languages like Dutch in which prosody is usually crucial for signifying the discourse status of an expression.

More generally, we can claim the following:

(109) The nature of the IS-marking of an adverbial intensifier depends on the discourse status of its antecedent.

On the basis of (109) we can now check whether the exclusive intensifier can be (non-contrastively) topically marked. But this can be done only by forcing the antecedent to be a new discourse topic and at the same time removing any, potentially contrasting, salient alternative referents. This amounts to a sentence with the exclusive intensifier that occurs in an out of the blue context; a test whose end result we already know from section 4.1 (see example (1) and surrounding discussion) to be infelicitous.

We have seen that the exclusive intensifier may be a CF or a CT, but not a focus or a topic. The common feature of CF and CT, not shared with focus and topic, is the saliency of alternatives, which is a property of contrast. The question is why the exclusive intensifier requires salient alternatives? If we answer this question, then we can understand why it can be a CF or CT but not a focus or topic.

I think the answer to this lies in the requirement of the exclusive intensifier for an event-internally central antecedent. Event-internal centrality is similar to one of the two types of centrality imposed by the adnominal intensifier, namely identificational. Recall from section 3.3.2.2 that this is the kind of centrality in which the alternative referent is linguistically identified via the antecedent of the intensifier (e.g. via a possessive construction). Recall also that the adnominal intensifier could be in focus in virtue of being part of an expression that answers a wh-expression. One of the conclusions drawn from that discussion was that the adnominal intensifier may be in focus and simultaneously centralize its antecedent in an identificational manner only if the alternative referent is salient in discourse. The example illustrating this is repeated below.

(110) A: Who did you see today during your visit to Buckingham Palace?
     B: You won't believe how many people I saw! I saw Fred, Mary, John's brother as well as JOHN HIMSELF.

In (110B) the adnominal intensifier opposes its antecedent *John* with *John's brother.* Notice that no contrast (i.e. exclusion) is involved. In the absence of *John's brother*, or referring to *John's brother* in a way that does not identify him via *John*, in prior context, the use of the adnominal intensifier becomes infelicitous. In other words, *John's brother* must be salient in discourse in virtue of the identificational type of centrality imposed on *John* in (110B). I believe that something similar could be going on in the case of the exclusive intensifier. Given that event-internal centrality is defined over the alternative event (via the inducing of $PER_{adverbial}$), there must always be some alternative event in which the antecedent is understood as event-internally central. This alternative event must be salient in discourse for the same reason that *John's brother* must be salient in discourse in the adnominal case in (110B). Even though, in principle, *John's brother* (with this particular linguistic presentation) may be contained in the set of all possible focus alternatives of *John himself* the hearer is unable to accommodate it. For this reason it must be salient in discourse in order to justify the adnominal intensifier's discourse requirement of *John* being identificationally central. Similarly, even though the alternative referent's event-internal peripherality may be defined over an event *e* that is contained in the set of all possible focus alternatives of an event with the exclusive intensifier, *e* must be salient because the hearer is unable to accommodate the particular alternative event that renders the antecedent event-internally central. This implies that that the hearer would also be unable to decide on the basis of which event-internal scale the antecedent referent is understood to be central. We can thus conclude that the requirement for saliency of the alternative event in the exclusive case is due to the centrality type it imposes on the antecedent. Saliency of alternatives can only result from contrast, hence, in the usual case, the exclusive intensifier must be contrastively marked.[59]

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[59] On the basis of an example like the following, it could be argued that the exclusive intensifier may be non-contrastively marked.

i) A: Tell me something about your friend Bill.
  B: Well, Bill once cut his hair <u>himself</u>. I guess that shows right away that he is a very able person.

In (iB) the antecedent of the intensifier is a (non-contrastive) topic. On the view that the IS-marking of the intensifier is inherited by the antecedent, this means that the intensifier is a topic. I think this is a case in which the context allows one to recover/construct the relevant set of linguistically non-salient alternative

4.8. A note on the distribution of adverbial intensifiers in English

This chapter is concerned with the interpretive side of intensifiers. Nonetheless, I think this would be a good point to discuss a few basic distributional characteristics of the exclusive and inclusive intensifiers in English. On the one hand, if the distribution of the exclusive intensifier is similar to other event-internal adjuncts, we would have further support for classifying it as an event-internal element. On the other, on the basis of the inclusive intensifier's distribution, we could draw some conclusions regarding the way it interacts with the main event semantically. It goes without saying that the assumption that the inclusive and exclusive intensifiers take the main event as part of their input, and that this is only possible under sisterhood (similarly to other adjuncts that interact with the main event), immediately explains why they have to occur in the clausal spine. The adnominal intensifier does not take the main event as its argument and, for this reason, it can adjoin directly to its antecedent.[60]

It is well known that manner adverbs, or event internal modifiers in general, cannot adjoin above an auxiliary. There is general agreement that this is due to the fact that they occur in the VP (or something equivalent, depending on the theory). If a verb and its arguments denote the most basic version of an event and if modification takes place under sisterhood, then an event internal modifier ought to occur in the verbal syntactic domain. Instead, an event-external modifier ought to occur outside the verbal domain. The aims of this section are to show that the inclusive and exclusive intensifiers have similar distribution to other event external (e.g. clausal adverbs) and event internal adjuncts (e.g. manner adverbs) respectively, and to discuss potentially unexpected differences.

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events on the basis of world knowledge. To be more specific, the accommodation of non-salient alternatives is made possible by the fact that, typically, one delegates their haircut to someone specialist (i.e. a hairdresser). This allows for the exclusive intensifier to be non-contrastively marked. On the other hand, the writing of a letter is not typically delegated to someone else, hence the infelicity of the example below.

ii) A: Tell me something about your friend Bill.
   B: #Well, Bill once wrote a letter <u>himself</u>.

These examples further corroborate the view expressed in the main text that, in virtue of the event-internal centrality it imposes on its antecedent, the exclusive intensifier requires the alternative events to be easily recoverable. Usually, this requires the alternatives to be linguistically salient, something that can be achieved by contrastively-marking the intensifier. Sometimes however, world knowledge is enough to achieve the recovery of alternative events, as in (i).

[60] In chapter 5 I explain that the adnominal intensifier *must* be adjoined to its antecedent for reasons of economy.

To cut a long story short, manner adverbs can occur in two positions; after the lexical verb or immediately before it. A clausal adverb is more flexible; it can occur in first position, immediately after the subject, in between auxiliary verbs, and immediately before the lexical verb. The potential ambiguity of an adverb between a clausal and manner reading in this last position is generally attributed to different attachment possibilities (e.g. VP for manner reading vs some higher projection for clausal reading). The distributional facts are indicated in (111) for the predicational adverb *cleverly*.

(111) a. Cleverly, John has been solving all the problems of the department (clausal)
      b. John cleverly has been solving all the problems of the department. (clausal)
      c. John has cleverly been solving all the problems of the department. (clausal)
      d. John has been cleverly solving all the problems of the department. (clausal or
                                                        manner)
      e. John has been solving all the problems of the department cleverly. (manner)

As far as the exclusive and inclusive intensifiers are concerned, Gast (2006) argues that the former but not the latter is part of the VP on the basis of three observations in English and German. In order to avoid repetition, in what follows, I only discuss the English data. The first observation is that the exclusive intensifier may be left-dislocated together with a VP but not the inclusive.

(112) 'We cannot wait for another Moses or Jesus to solve the predicament we find ourselves in today,' he said in a 1999 interview with The Boston Globe. 'We have to do it ourselves.' And do it himself he did, right until the bitter end. (Gast 2006: 83)

(113) ?? She said she snored herself. And snore herself she did indeed. (Gast 2006: 83)

In (112) the exclusive intensifier felicitously preposes along with the verb and the object (i.e. *do it himself*) suggesting that they all form a constituent. On the other hand, (113) is degraded, presumably, because fronting of the VP + intensifier forces an exclusive reading on the intensifier and *snoring* cannot be delegated to others. The inability of the inclusive to pre-pose along with the VP suggests that it is not part of it. Instead, the felicitous preposing of the exclusive along with the VP suggests that the two form one constituent.

The second observation is that the exclusive intensifier can form part of deverbal derivation but not the inclusive. In order to illustrate the contrast, Gast takes the sentence *I have learned German myself,* in which the intensifier may take either the exclusive or inclusive readings depending on the context. Nominalizing *learned German myself* will result in the expression *self-learner*. As the examples below indicate, only the exclusive reading survives, suggesting that it is part of the same constituent that *learned German* is.

(114) a. Nobody has taught me German. I have learned it myself. (exclusive reading)
     b. Don't tell me how difficult it is to learn German. I have learned it myself.
       (inclusive reading)
     c. Nobody has taught me German. I am a self-learner. (exclusive reading)
     d. # Don't tell me how difficult it is to learn German. I am a self-learner.
       (inclusive reading)

Finally, Gast interprets the different behavior of the exclusive and inclusive intensifiers with respect to the scope of negation as evidence for their position in the sentence. The pattern is provided below.

(115) a. … relying on an assistant and not doing it himself (= alone).
       i.e. rely on an assistant and NOT: do it HIMSELF (exclusive intensifier)
     b. If she does not have young children herself … (= either)
       If she has that property HERSELF: NOT have young children…(inclusive
       intensifier)
       (Gast 2006: 7)

If scope is determined via c-command, then (115) could be used as evidence for the view that the exclusive intensifier is lower and the inclusive higher than negation. If, in turn, sentential negation is adjoined to the VP (as Gast must assume for this argument to have any force), then the exclusive intensifier must be properly contained in the VP. Note however that (115) cannot be used as conclusive evidence for the view that the inclusive intensifier is *outside* the VP, because there is still the possibility that it is also adjoined to the VP, only higher than negation.

We have reviewed some evidence in favor of the view that the exclusive intensifier, but not the inclusive, is contained in the VP. This is in accordance with our expectations for the exclusive intensifier. This further suggests that the inclusive intensifier is the event-external version of ID$_{adverbial}$. A preliminary conclusion would be that intensifiers behave similarly to other verbal adjuncts (like *rudely*), which have a dual interpretation;

an event-external adjunct version, corresponding to a VP-external position, and event-internal adjunct version corresponding to a VP-internal position.

However, this conclusion already raises problems. Let us focus on the inclusive intensifier first and assume that it can right or left adjoin to some projection α higher than the VP. If it right adjoins to α, we get post-verbal inclusive. If it left adjoins to α, we get preverbal inclusive. The obvious problem posed by the distribution of this intensifier is that it does not exactly follow the distribution of other event-external modifiers. As opposed to the inclusive, other event-external modifiers may be found in first position, immediately after the subject and not after the lexical verb. As will be discussed in chapter 5, the intensifier is a syntactically dependent element that, like an anaphor, needs to be c-commanded by its antecedent. This prevents the inclusive from occuring in first position. It is difficult to understand why the inclusive intensifier diverges from other clausal adverbs in not being able to occur immediately after the subject, or being able to occur after the lexical verb. Further research is needed to account for these discrepancies.

With regard to the exclusive intensifier we can assume that it is right or left adjoined to the VP. In fact, Ernst (2002) derives the pre- and post- verbal distribution of manner adverbs in a similar fashion. However, the exclusive intensifier differs from 'normal' event-internal modifiers in one crucial respect. Aside from occurring post-verbally, event-internal modifiers can also occur immediately before the verb. The exclusive intensifier can only occur post-verbally. I think that this discrepancy is due to the consistent IS marking of the exclusive intensifier. As noted by Ernst (2002: 272) "[…] the preverbal position [of manner adverbs] is normally taken as backgrounded information, while VP-final position is associated with foregrounding". This is evident from the fact that a manner adverb, such as *loudly*, can only be stressed when found post-verbally.[61] (Capitals indicate stress)

(116) a. ?? Al LOUDLY proclaimed his innocence.
       b.   Al proclaimed his innocence LOUDLY. (Ernst 2002: 272)

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[61] Note that the judgments provided for preverbal stressed *loudly* pattern with a preverbal occurrence of the exclusive intensifier. That is, for many speakers the exclusive intensifier is *not* completely out when preverbal. This corroborates the explanation provided in the main text.

If the exclusive intensifier is a CF in English, as argued in the previous section, and if focus signals new information which needs to be foregrounded, then its consistent post-verbal distribution can be accounted for.

This section was primarily intended to support the classification of the exclusive intensifier as an event-internal adjunct on the basis of distributional evidence in English. Applying the same distributional tests to the inclusive intensifier has led to the suggestion that it may constitute the event-external version of $ID_{adverbial}$ in virtue of being outside the VP. This is a positive conclusion as it signifies that there is nothing special with the adverbial intensifier. At least in English, it behaves similarly to other adverbs in terms of their ability to interact with the event in an event-internal and event-external manner.

4.9. Semantics and Information Structure of the inclusive intensifier

In this section I elaborate on the semantics of the inclusive intensifier. The evidence accumulated in the previous section suggest that the inclusive intensifier constitutes the event-external version of $ID_{adverbial}$. In order to account for the generic type of centrality imposed by the inclusive intensifier on its antecedent, I assume that the event variable forming part of the input of $ID_{adverbial}$ is bound by a generic operator GEN (Diesing 1992; Krifka et al 1995; a.o). In terms of IS, I suggest that this instance of the intensifier is always a CT, in virtue of the CT discourse status of its antecedent. This is in turn consistent with the claim in (109).

4.9.1.   Semantics

Let us begin with the inclusive intensifier's semantics, which I illustrate in (117). (117) is adjusted in a way that the event taken as the input of $ID_{adverbial}$ is interpreted as anything else but a specified event (e.g. an event, a proposition or a fact). This kind of event is represented as τ (as opposed to τ^* for a specified event). After its interaction with IS, the inclusive intensifier ought to induce alternatives of the same semantic type. (118) expresses the semantics of one such alternative, that is, an instance of the event external variant of the family of $PER_{adverbial}$. (recall that $PER_{adverbial-i}$ corresponds to a particular instance of the family of $PER_{adverbial}$).

(117) Inclusive $ID_{adverbial}$: $D_t D_e \rightarrow D_e$

  $ID (\tau,\alpha) = \alpha$ (for all $\alpha \in D_e$ and all $\tau \in D_t$)

(118) Alternative of inclusive:

PER$_{adverbial-i}$: D$_t$D$_e$ $\rightarrow$ D$_e$

PER$_i$ (τ, α) = β for all $\alpha \in$ D$_e$, where β is a τ-related peripheral alternative to α in D$_e$.

To facilitate the discussion consider again an example of the inclusive intensifier.

(119) A: Bill raised kids.
     B: John has himself raised kids, but he found it hard.

As before, the question is how the combination of (117) and (118) delivers the interpretive effect of the intensifier in (119B)? For expository purposes, the meaning characteristics of the inclusive intensifier are repeated below.

(120) **Inclusive**

    a. Centralizes its antecedent against other referents in terms of a *generic* event e^+. Due to this, centrality is calculated on the basis of 'prototypicality for/expertise in agency in e^+.

    b. The salient alternative utterance is never negated.

    c. Implies additivity.

    d. The antecedent is always a switch topic (and thus a subject).

    e. The proposition e_1 containing the intensifier is interpreted as the premise or explanation for another salient proposition e_2.

In section 4.3 it was suggested that the meaning characteristics described in (120c) and (120d) are a direct consequence of (120b). To put this more clearly, the additive effect and the topichood of the antecedent result from the fact that two true and distinct events of the same type are lined up in discourse. (120e) was suggested to result from the fact that the inclusive intensifier is always used in the context of a rule that strengthens or weakens some other salient rule. This, in turn, was suggested to directly follow from the characterization of the antecedent as a prototypical agent for a generic event, that is, the property in (120a). I will not go through the discussion that led to these conclusions here (see section 4.3 for the discussion), but instead concentrate on two separate points:

i. (120b) follows from (120a);

ii. if (i) proves correct, then we only need to account for (120a). (117) and (118) are intended to do this, but can only partly account for the most primitive characteristic in (120a).[62]

It would be more useful to start from (ii). Let us see what the representations in (117) and (118) give us. As in previous cases, the centrality of the antecedent x is derived indirectly, via the inducing of some version of $PER_{adverbial-i}$, whose application delivers a referent peripheral to the intensifier's antecedent. Thus it would be better to focus on the representation of the inclusive intensifier's alternative in (118). $PER_{adverbial-i}$ takes an event e and a referent x as its input and delivers a referent y as its output. Given our standard assumption that $ID_{adverbial}$ and $PER_{adverbial-i}$ apply onto the same (discourse given) referent, x stands for *John* in (119A). The application of $PER_{adverbial-i}$ onto *John* and the event e denoted by the predication in (119A) will result in the construction of a peripheral structure to *John* relative to e in (119A) (see (118) for details of the process); *Bill* is the referent realizing this peripheral structure. Since it is a clausal version of the event that is involved in this process, the output of $PER_{adverbial-i}$, y, will be understood peripheral to x in an event-external manner. This naturally imposes restrictions on the wider context, and in particular, on the way y can be understood peripheral to x. Only event-external criteria can count as possible scales for comparing x and y.

As (118) stands, it imposes event-external centrality on *John* on the basis of the event e it takes as its input, e.g. the episodic event e of Bill's raising kids in (119A).[63] This is not what we need though, because *John* is deemed central on the basis of the generic counterpart of e, that is, e^+. Specifically, *John* is understood to rank higher than *Bill* in terms of 'prototypicality in agency in e^+'. Or to put this differently, *John* is understood to be more experienced or knowledgeable with respect to the general case of being the agent of raising kids. Crucially, e functions as the anchor for the creation of e^+ with respect to which centrality is calculated. That is to say that *John* is understood to be the prototypical agent of raising kids, and not any other sort of generic event. This suggests that the generation of the generic-event for the calculation of centrality is restricted by the denotation of the episodic event containing the output referent of $PER_{adverbial-i}$. In order to account for this, I suggest that the event variable taken by

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[62] It is primitive in the sense that the meaning characteristics in (120b) - (120e) follow from this.
[63] To get an idea of how this kind of centrality could look like, see Constantinou (2013).

ID$_{adverbial}$ as input is first interpreted generically, similarly to any other generic event. It is generally accepted that generic statements rely on a default GEN operator, which is assumed to have a similar effect as adverbs of quantification like *usually, always* or *generally*. Krifka et al (1995) suggest that GEN is a dyadic operator quantifying over individuals and events. Consider the example below.[64]

(121) Mary smokes after dinner.

(121) has two generic readings; One which says that in after-dinner situations which contain *Mary*, she usually smokes and a second one which says that when *Mary* smokes, it is usually in after-dinner situations. On Krifka et al's (1995) view, the first reading is represented as in (122a) and the second as in (122b). In both cases, the operator quantifies over the external argument and the situation of smoking after dinner.

(122) a. GEN [x,s]; (x=**Mary & after.dinner** (s) & **in**(x,s); **smoke**(x,s))
     b. GEN [x,s]; (x=**Mary & smoke**(x,s); **after.dinner** (s))

To make things simpler, let us reconsider an example of the inclusive intensifier in the context of an intransitive verb.

(123) Max hates it when Mary snores, although he snores himself. (Gast 2006: 133)

He snores is the clause containing the inclusive intensifier and it is interpreted as a generic event, even though, generally speaking, this does not have to be the case. As always, ID$_{adverbial}$ takes this event *e* as part of its input. In case *e* is not already interpreted generically (as in (123)), I suggest that the inclusive intensifier either introduces or is in the scope of an independently introduced silent GEN operator that forces a generic interpretation on *e* that is taken as input.[65] The generic interpretation of the event-input of the intensifier in (123) can be represented as follows:

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[64] In what follows I adopt Krifka et al's (1995) analysis for illustrative purposes. As far as I can see, the choice of the analysis of GEN does not affect the point I'm trying to make.
[65] If ID$_{adverbial}$ takes an event *e* and a nominal referent *x* as inputs, then we could represent it as ID(e,x), with the variables in brackets corresponding to the input. We could thus represent the inclusive intensifier as ID(GEN(e),x). This differs from the exclusive intensifier in that it would be represented as ID(e,x).

    We could avoid this complication if we assume, along the lines of Diesing (1992), that there is an existential operator at the edge of the VP and a generic operator at the edge of IP (=TP). We already know that the inclusive intensifier is outside the VP, whereas the exclusive intensifier is inside the VP. We could thus maintain a common lexical entry and attribute their different event-related centrality

(124) GEN [x,s]; (x=**he** & **snores** (x,s))

(124) is the eventual type of event taken as input by $ID_{adverbial}$ in the inclusive case. Below, I schematize the whole process described above. In line with our previous convention, the generic counterpart of e is represented as e^+. $ID_{adverbial}$ is represented as ID(e,x), with the two variables in brackets corresponding to the event e and nominal referent x taken as input.

(125)

ID(e,x)		ID(e$^+$,x)
e = he snores; he raised kids, etc.	GEN turns e into e^+ $\longrightarrow$	e^+ = he snores; he raises kids, etc.
x = antecedent		x = antecedent

With these considerations in mind, I revise the representation of the inclusive intensifier as follows:

(126) Inclusive $ID_{adverbial}$: $D_t^+ D_e \rightarrow D_e$

   ID $(\tau,\alpha) = \alpha$ (for all $\alpha \in D_e$ and all $\tau \in D_t^+$)

The representation of its alternative is revised accordingly.

(127) Alternative of inclusive:

   $PER_{adverbial-i}$: $D_t^+ D_e \rightarrow D_e$

   PER_i $(\tau, \alpha) = \beta$ for all $\alpha \in D_e$, where β is a τ^+-related peripheral alternative to α in D_e.

(127) expresses that there is a generic event τ^+ relative to which a referent y is peripheral to some other referent x. $ID_{adverbial}$ and $PER_{adverbial-i}$ operate on the same referent x, the referent denoted by the intensifier's antecedent, hence x will be understood to be central with respect to τ^+.

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effects on their distribution. That is, the exclusive intensifier's episodic type of centrality is due to ID(e,x) (and the main predicate) being found in the scope of the existential operator, whereas the inclusive intensifier's generic type of centrality is due to ID(e,x) being found in the scope of the generic operator. Future research would have to investigate these possibilities in more detail.

Moving on to the first point raised in (i), we need to explain why the alternative proposition is interpreted to be true. With reference to (119), the antecedent of the intensifier, *John*, must be central against the alternative referent *Bill* in an event-generic manner. Specifically, *John* must be ranked higher than *Bill* in terms of 'prototypicality in agency in τ^+'. As previously pointed out, τ functions as the anchor for the creation of τ^+. As always, the centrality effect on *John* is determined in the alternative (via the application of PER$_{adverbial-i}$). So, it is the event τ in the alternative utterance that functions as the anchor for the creation of τ^+ on the basis of which centrality is calculated. With these remarks in mind, suppose that the alternative event τ is interpreted as false. This would imply that the alternative referent, *Bill*, has not raised kids. Since *Bill* is the output of PER$_{adverbial-i}$ (applied onto the generic event and *John*), this means that the comparison criterion is with respect to 'prototypicality for *not* being the agent of raising kids', in which, crucially, *John* must rank higher than *Bill*. However, the sentence that follows states that *John* did raise kids. *John* cannot be a prototypical entity for not raising kids, whilst asserting that he did raise kids. For this reason, all alternatives must be interpreted to be true. Otherwise, the inclusive intensifier's requirement for an event-generically central antecedent remains unsatisfied.

4.9.2.   Information Structure

In this section I elaborate on the IS-marking of the inclusive intensifier.

Let us first consider in what way(s) the inclusive intensifier may be IS-marked. The possibility of this intensifier to be a CF is immediately ruled out from the fact that its generic-type of centrality requires the alternative to be interpreted as true. Given the typology of Neeleman and colleagues elaborated in section 3.2, we are left with three possible IS-markings; CT, topic and focus. As repeatedly mentioned, the inclusive intensifier cannot occur in an out of the blue context. A sentence with this intensifier requires its alternative to be salient (or easily accessible for accommodation). Recall that the saliency of the alternative (along with fact that this alternative is not negated) is the very reason we get the additive effect. If the saliency of alternatives is due to contrast, then we are left with only one possibility, CT-marking. This should not come as a surprise given the generalization made in (109), repeated below, and the fact that the antecedent is interpreted as a switch topic (see section 4.3 for details), which is taken by many (e.g. Neeleman & Vermeulen 2012) to be a sub-variety of CTs.

(128) The nature of the IS-marking of an adverbial intensifier depends on the discourse
     status of its antecedent.

Similarly to the exclusive case, the intensifier's IS-marking does not only depend on the antecedent's discourse status but, in fact, 'inherits' it. The inclusive intensifier is the same as the adnominal and exclusive intensifiers in that they all mark the antecedent as discourse given. The IS marking of either the antecedent or the intensifier with an IS category α will have exactly the same effect, that is, the interpretation of the antecedent as marked with α. This allows for the intensifier to 'inherit' the IS-status (and stress-pattern) of the giveness-marked antecedent. The inclusive intensifier is always a CT because its antecedent needs to be interpreted as such.

   To summarize the view developed here, the inclusive intensifier is always found in the context of salient alternatives that are not negated. This led to the hypothesis that it is an instance of a CT. Independently from this, we saw in previous sections that the intensifier's IS-marking is determined by the antecedent's discourse status and that, indeed, the inclusive intensifier's antecedent is a CT, thereby corroborating our initial hypothesis. Below I indicate the alternative semantics of the inclusive intensifier in the context of (119).[66] (e^{+} corresponds to the generic interpretation of the episodic event e the intensifier modifies)

(129) a. $<\lambda x$ ASSERT [x has raised kids], $ID(e^{+},j)$, $\{PER(e^{+},j))_1$, $PER(e^{+},j))_2$,...,

      $PER(e^{+},j))_n \}>$

   b. $\exists y$ [y $\in \{PER(e^{+},j))_1$, $PER(e^{+},j))_2$,...)$_n \}$ & $\lambda x \neg$ASSERT [x has raised kids](y)]

The above discussion does not answer the most crucial question, that is, why does the inclusive intensifier only occur in the context of salient alternatives. Or, to put this differently, why does it have to be a CT. According to our analysis, the inclusive

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[66] As already discussed in fn 38, the use of the inclusive intensifier is *not* accompanied by the inference that the speaker is not willing/able to assert some other proposition (see fn 38 for some potential explanations as to why this is the case). The semantics provided in (129) are thus incompatible with the exact meaning contribution of the inclusive intensifier. This could be because the inclusive intensifier is in fact a topic (and not a contrastive topic). Under this scenario however, we would be unable to explain why this intensifier is always found in the context of a salient alternative. Given that this alternative hypothesis also presents problems, I will maintain the contrastive topic analysis for the inclusive intensifier (along with the semantics associated with this particular IS-category adopted in this dissertation) and leave it for future research whether this intensifier assumes a non-contrastive IS-role or whether it is indeed a contrastive topic but the semantics assumed here for this IS-category is not a suitable description.

intensifier's antecedent x is deemed central indirectly, via the inducing of some version of PER$_{adverbial}$ (I abstract away from issues related to the generic operator, but see fn 65). x is central because the generic version of the event <u>in the alternative</u> utterance is involved in the understanding that x is central against y in an event-generic manner. Consider a scenario in which the inclusive intensifier is *not* contrastive, let's say a topic. This minimally implies that the alternative utterance u, and the event e it denotes, are not salient. If e is used as the anchor for the generation of a corresponding generic event e^+ with respect to which centrality of x is calculated, then e^+ is not salient either. This entails that the speaker centralizes the antecedent in terms of prototypicality for agency in e^+, while the nature of e^+ remains unknown. This is of course an impossible state of affairs.

4.10. The Elsewhere Condition and some cross-linguistic predictions

As it stands, the overall account proposed in this dissertation regarding the interpretation of intensifiers is unable to make the correct predictions. In order to see why, consider again the proposed basic meaning of the three intensifiers below.

(130)		Adnominal	Exclusive	Inclusive
	Intensifier:	ID	event-internal ID$_{adverbial}$	event-external ID$_{adverbial}$
	Alternative:	PER	event-internal PER$_{adverbial}$	event-external PER$_{adverbial}$

The problem lies with the adnominal intensifier. Recall that the adnominal intensifier requires its antecedent to be central in a *world knowledge* manner (e.g. in terms of company hierarchy) or *identificational* manner (e.g. in terms of the linguistic presentation of the alternative referent that is identified via the antecedent). The requirement for such an antecedent is pretty strict. For instance, the use of the adnominal intensifier in a context in which the antecedent is central in an *event-generic* or *event-internal* manner renders its use infelicitous.

(131)   A: Bill raised kids.
        # B: John himself raised kids, but he found it hard.
          (context allowing *John* to be event-generically central)

(132)   A: John built this house with Bill's help.
        # B: No, John himself built it.
          (context rendering *John* event-internally central)

Nevertheless, the semantics suggested for the adnominal intensifier and its alternative in (130) lead to the expectation that its use should in fact be felicitous in (131) and (132). On the view expressed in (130), the antecedent *x* of the adnominal intensifier only needs to be central; there is no additional specification regarding the manner in which *x* is supposed to be central. On the other hand, the semantics proposed for the inclusive and exclusive instances are specific enough to rule out antecedents that are not central in event-generic and event-internal manners respectively. Similarly, we could enrich the semantics of the adnominal intensifier in a way that restricts its association to referents that are central in terms of world knowledge or identificationally. Note that this solution would presumably require the introduction of two different entries for the adnominal intensifier; one that forces identificational centrality on the antecedent and one that forces centrality in terms of world knowledge. Alternatively, we could maintain the semantics in (130) and say that, in principle, the adnominal intensifier can indeed associate with referents that are central in event-internal/generic manners (additionally to the ones we are already familiar with), but for independent reasons it cannot in English and Dutch. I will argue that we can do without the former option, which is theoretically less parsimonious.

In order to restrict the English and Dutch adnominal intensifiers from interacting with event-internally/generically central referents I assume that the three instances of the intensifier are subject to the Elsewhere Principle, first introduced into generative grammar by Kiparsky (1973). Neeleman & Szendroi (2007: 685) formulate the principle as follows:

(133) Let R_1 and R_2 be competing rules that have D_1 and D_2 as their respective domains of application. If D_1 is a proper subset of D_2, then R_1 blocks the application of R_2 in D_1.

Let us see how this principle applies to intensifiers. Suppose that a referential entity E is to acquire some centrality property P through the use of an intensifier; then any two intensifiers that are in the position to add P to E will be in competition. We have discovered four different ways in which E may be central when interacting with an intensifier; identificationally, on the basis of world knowledge, event-generically, and event-internally. According to (130), in English and Dutch E may be assigned the property P_1 of event-internal centrality in two ways; either by being the antecedent of the adnominal intensifier or the exclusive one. But of course the domain of application

of the exclusive intensifier is properly included in the domain of application of the adnominal, as the former encodes an additional specified-event variable (that is part of its input). This means that the Elsewhere Principle will block the adnominal intensifier where the exclusive can be used, thereby explaining the ungrammaticality of the adnominal intensifier in such cases (see (132)). A similar rationale applies to the competition between the inclusive and adnominal intensifiers in assigning the property P_2 of event-generic centrality. In principle, either of them may deliver P_2 on E. However, the domain of application of the inclusive is again properly included in the domain of application of the adnominal, due to the additional event variable present in the entry of the inclusive. The Elsewhere Principle will thus block the use of the adnominal in these cases (see (131)).[67]

Now suppose that E is to acquire indentificational or world knowledge centrality. In these cases, only the adnominal intensifier can be used because the entries of the exclusive and inclusive are overspecified with additional event variables. In other words, the latter two intensifiers are specialized in delivering event related centrality effects, thereby being unable to interact with referents that are central in event-unrelated ways. Note that the inclusive and exclusive intensifier are not in competition to begin with because their respective domains of application do not overlap.

The view that the Elsewhere Principle conditions the interpretation of intensifiers makes specific predictions for languages that do not have the full range of intensifiers. As already pointed out, all languages have an adnominal intensifier but not all of them have the adverbial ones. In short, the expectation is that in a language *l* in which there are no adverbial intensifiers, the adnominal intensifier should be able to associate with event-internally and event-generically central referents. Put differently, both (131B) and (132B) should be felicitous in *l*, contrary to what happens in English. This is because the use of the adnominal intensifier will not be blocked by the existence of lexical items with overlapping but more specific domains of application. Note that the alternative approach in which the semantics of the adnominal intensifier is enriched in a way that prevents its association to event-related central referents predicts that (131B) and (132B) should remain infelicitous in *l*. The evaluation of the two alternative approaches outlined here is left for future research.

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[67] A similar 'blocking' approach is taken by Williams 1997 and Déchaine & Wiltschko (2002a; 2002b), among others, in explaining the complementary distribution of reflexives and personal pronouns.

4.11. Summary

This chapter began with an explication of the meaning contribution of the exclusive and inclusive intensifiers. Almost all of their characteristics, as listed in section 4.5, were captured via assuming that the two adverbial intensifiers denote an event-related variant of the identity function, $ID_{adverbial}$, whose (contrastive) IS-marking induces an event-related variant of the family of PER, $PER_{adverbial}$.

Even though both intensifiers constitute the same lexical entry, it was claimed that their interpretive differences result from the exclusive being the event-internal variant of $ID_{adverbial}$, whereas the inclusive the even-external variant of it, whose event-input is first transformed into a generic event in virtue of being in the scope of a generic operator.

I tried to highlight that the great majority of the meaning characteristics of the exclusive and inclusive intensifiers ultimately result from the type of centrality they impose on their antecedent x. Instead of repeating how each characteristic derives from the centrality type on x, I will just indicate that the only one we could not understand on the same basis was the requirement of the inclusive intensifier for a topical antecedent. Despite this, I tried to show that this requirement is presumably due to its additive effect, as it is shared with other post-posed additive focus particles.

Additionally, there was special focus on the IS-marking of the two adverbial intensifiers. The main discovery was that an adverbial intensifier requires a salient alternative in virtue of the event-related centrality it imposes on its antecedent. This is usually achieved via the intensifier's contrastive marking. Interestingly, we further saw that the intensifier 'inherits' the IS-marking of its antecedent.

Finally, the chapter discussed how the interpretation of the intensifier that is adjacent to its antecedent (i.e. adnominal) could vary depending on whether a language has the adverbial variants in place. It was suggested that the Elsewhere Principle has a role to play in regulating its meaning in English and Dutch, which have the adnominal and adverbial variants, and that the overall account makes specific predictions (to be confirmed in the future) regarding languages that only have the adnominal variant.

Apart from capturing the meaning differences of the three intensifiers, I believe that the analysis presented in this chapter and the previous one contributes towards an understanding of their commonalities, namely their common morphology, consistent IS-marking and centrality effects imposed on the antecedent.

Part II: Distribution

5. The Syntax of intensifiers

5.1. Introduction

In order to account for the interpretation of the inclusive and exclusive intensifiers, in previous chapters we assumed that they take as their input a predicate denoting an event and nominal referent. In virtue of taking as input the event e denoted by the main predicate, the two ought to occur as sisters of some projection related to the predicate denoting e (similarly to other verbal adjuncts interacting with the predicate). This immediately explained why the inclusive and exclusive readings cannot occur adnominally to the nominal referent x they are intuitively understood to associate with, as this would result in their embedding in the nominal projection headed by x. On the other hand, the adnominal reading *can* adjoin to x because it does not require e as its argument. One of the aims of this chapter is to show why the adnominal intensifier *must* adjoin to its antecedent.

More generally, this chapter and the next one are concerned with the distribution of intensifiers, with each chapter focusing on the way different domains of the grammar influence their distribution. In particular, the next chapter looks at how the interface between different components of the grammar, information structure, syntax and semantics, influences the distribution of intensifiers. In this chapter, I focus on the way intensifiers relate to the nominal referent x they take as input. Evidence is presented in favor of the view that intensifiers are syntactically dependent elements, in the sense that the relation holding between the intensifier and the nominal referent x it is intuitively understood to associate with exhibits a certain cluster of properties characteristic of a syntactic dependency. These properties (to be discussed in more detail in 5.4) are a) the dependent (i.e. the intensifier) must have an antecedent (corresponding to the nominal referent x they are intuitively understood to associate with), b) the antecedent must c-command the dependent, c) the antecedent must be close to the dependent and d) the dependent must take a unique antecedent. It is well known that the relation between a syntactically displaced constituent and its trace (i.e. the position it has moved from) also exhibits these properties.

A reductionist approach to grammatical dependencies could therefore lead to the proposal that the intensifier and its antecedent are always base-generated under *one* DP (i.e. the intensifier is invariably base-generated adjoined to its antecedent), as suggested by Bergeton (2004) and Gast (2006), and then, for independent reasons, the antecedent

strands the intensifier by moving upwards. This would result in the antecedent and the intensifier being found distanced from each other (i.e. the two expressions will not be sisters in surface syntax). Just like any other movement operation, the relation holding between α and the trace of α will exhibit the properties listed above. Since the intensifier is assumed to be adjoined to α's trace under a sisterhood relation, it follows that the relation between (the moved) α and the intensifier will *also* exhibit the exact same properties.

Of course this would not be the first proposal to reduce some dependency or other to movement. Predecessors of such an approach can be seen in the literature on control, a phenomenon that also exhibits the above properties, which has been argued to constitute another instance of movement (see Hornstein 1999, 2001; Hornstein and Pietroski 2010). Another example of such reductionist reasoning concerns reflexive binding, which is analysed by some authors (Hornstein 2001; Kayne 2002) as yet another instance of movement.

Nevertheless, I will go through the most elaborated movement analysis up to date, that of Gast (2006), and provide reasons for rejecting it, even if such an analysis could explain a number of properties that are in fact true of the relation holding between the intensifier and its nominal antecedent. We are therefore in need of explaining these properties through other means. I develop an alternative analysis based on the null hypothesis that the intensifier is syntactically an adjunct base-generated at some distance from its nominal antecedent. This adjunct enters into a syntactic dependency with its antecedent that is not of the movement type. Following Neeleman & van de Koot (2002, 2010), the cluster of properties outlined above will be understood by assuming that syntactic dependencies are invariably encoded in a particular manner. It is precisely for this reason that phenomena like anaphoric binding, control and movement exhibit the same properties.

The chapter is structured as follows; I first discuss Gast's (2006) movement analysis and provide arguments for rejecting it (see 5.2). In 5.3 I show, based on Dutch data (primarily), that the distribution of the intensifier is as free as would be expected for an adjunct. There are other adjuncts, such as *gisteren* 'yesterday', that display exactly the same distributional flexibility. In order to explain why the intensifier is related with its antecedent in the particular way outlined above I will take two steps. First, I provide evidence for the nature of the relation between the intensifier and its antecedent in 5.4. Second, (in 5.5) I introduce Neeleman & van de Koot's (2002, 2010)

approach towards analyzing syntactic dependencies and then make a concrete proposal regarding how intensifiers relate to their nominal antecedent, namely through a Selectional Requirement (henceforth SR). This section also addresses the question why the adnominal reading of the intensifier can only adjoin to its antecedent and not distanced from it and provides an economy-based account for it. Certain distributional contrasts between the English and Dutch adverbial intensifiers are also discussed in 5.5. Finally, section 5.6 presents a novel argument in favour of the claim that the relation between the intensifier and its antecedent is established in syntax as opposed to semantics. Section 5.7 concludes the chapter.

5.2. Gast (2006) on the syntax of intensifiers: a movement approach

Similarly to this dissertation, Gast (2006) follows König and Siemund's observations in distinguishing three different readings of the intensifier; the adnominal, inclusive and exclusive. It is important to note from the beginning that he assumes a common lexical entry for all three readings, an identity function ID from the domain of individuals to the domain of individuals. This allows for the intensifier to be base-generated in a position that is adjoined to the DP it is intuitively understood to interact with, independently from the reading it eventually gets.[68]More details on how he derives the different interpretive effects on the basis of one lexical entry can be found in section 2.3. Gast's main hypothesis is as follows:

(1) All intensifiers are generated in the Verb Phrase as sisters of their head DPs.
     Gast (2006:84)

As Gast (2006: 84) points out, (1) "is inspired by the observation that head-distant intensifiers are clearly in construction with some DP, even though they are not adjacent to that DP". As the adnominal intensifier appears adnominally to its antecedent in surface syntax, the main challenge presented by the hypothesis in (1) is to derive the different syntactic configurations associated with the inclusive and exclusive intensifiers through different types of movement operations. The analysis is similar in many respects to Sportiche's (1988) stranding analysis of floating quantifiers. In what follows,

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[68] Recall that *x* can be the unspecified argument variable of a predicate (as Eckardt 2001 suggests for the adverbial variant of the intensifier). This allows ID to be base-generated in the clausal spine as well. Despite this possibility, Gast (2006) assumes that the intensifier is always generated adnominally to its antecedent.

I focus on how he derives the position of English adverbial intensifiers. The reader is referred to the work itself for the analysis of German and Swedish intensifiers.

Similarly to most linguists, Gast assumes a shell analysis of the verb phrase (i.e. a verb phrase of the type [vP…[VP…]]), in which subjects are base-generated in specvP. Subjects then move, obligatorily and in a stepwise fashion, first to specTP and then to specFinP (FinP = finiteness Phrase). FinP is the projection headed by Fin^0, and it is found immediately above TP (i.e. [FinP [TP . . .]]). This last movement of the subject to specFinP remains unmotivated. In addition to this, Gast makes the following controversial assumptions: a) English has V-T movement, similarly to French; b) when the main verb moves to T, its complement can be pied-piped along with it; c) an auxiliary occupies Fin^0. The assumption in (b), that is, the pied-piping of the complement, is motivated by linguistic *heaviness,* "which is a function of constituent length and stress weight" (Gast 2006: 90). The grammar treats intensifiers as 'heavy' in virtue of their consistent stressing. This leads to complement pied-piping, allowing them to surface in a prosodically preferred verb-phrase final position. In this way, Gast (2006) continues to point out, Büring's (2001) FINALFOCUS phonological constraint is satisfied. FINALFOCUS dictates that focus should be sentence final.

On the basis of these assumptions, the distribution of the exclusive intensifier is analyzed as follows:

(2) [FinP I_1 always [TP t_1 [do my homework]$_2$ [vP [DP t_1 myself] t_2]]].

In (2) the following operations are assumed to take place: i) *do* is moved to T^0, ii) the complement *my homework* is pied-piped to satisfy the phonological constraint FINALFOCUS iii) the subject DP associated with the intensifier, *I*, initially moves to [Spec,TP] and then to [Spec,FinP], leaving the intensifier behind as the only element in the vP.

The pre-verbal occurrence of the inclusive intensifier is analyzed as in (3). In contrast to the exclusive intensifier, which is assumed to be stranded in specvP, the inclusive intensifier is stranded in specTP. This is in accordance with the observation that only the former is part of the verbal complex (see section 4.8).

(3) [FinP He_1 has [TP [DP t_1 himself]$_2$ been$_3$ [vP t_2 t_3 the subject of speculation]]]].

In (3), the following movement operations take place: i) the whole intensified DP complex moves to specTP, where the intensifier is stranded, while the head DP moves on to specFinP, ii) the main verb *been* moves to T. Given that the inclusive intensifier is also stressed, it is rather surprising that the complement of the verb does not move along with the verb in order to satisfy the FINALFOCUS constraint.

Gast suggests that the surfacing of the inclusive intensifier in post-verbal position is derived in a similar way that the exclusive variant is (the motivation is also similar, that is, to satisfy some version of the FINALFOCUS constraint). The difference between the two is that in the inclusive case the (remnant) verb-phrase moves to some position higher than the TP, whereas in the exclusive case the same constituent moves to T.

(4) $[_{\text{FinP}}$ He$_1$ has $[_{\text{vP}}$ t$_2$ been the subject of speculation$]_3$ $[_{\text{TP}}$ $[_{\text{DP}}$ t$_1$ himself$]_2$ t$_3]]$.

In (4), the following movement operations take place: i) the whole intensified DP complex moves to specTP, where the intensifier is stranded, while the head DP moves on to specFinP, ii) the remaining verbal complex then moves to some position higher than TP.

All in all, Gast seems to adopt a pretty flexible view of the grammar, in which constraints like FINALFOCUS only optionally apply. This is the only way to explain why the inclusive intensifier can be found both pre- and post-verbally. However, this leads to the expectation that the exclusive intensifier should also be able to be found pre-verbally, which is not the case. Additionally, the verb and its complement seem to be able to move to multiple positions. Either to T, in order to explain the distribution of the exclusive intensifier, or to some position higher than TP, to explain the post-verbal occurrence of the inclusive intensifier. Focusing on the latter type of movement, we are led to the expectation that other VP-external adjuncts, such as the clausal instance of *cleverly* (as opposed to the manner instance of *cleverly*), should also be able to appear post-verbally when stressed. This prediction is not borne out.

(5) A: Stupidly, John opened the door.
     B: Well, on the contrary. I think that, CLEVERLY John opened the door.
     B': *Well, on the contrary. I think that, John opened the door CLEVERLY.

                                                          (clausal reading of *cleverly*)

More generally, I find it implausible that the relatively free distribution of intensifiers follows from a conspiracy of movement operations, specifically coming into life whenever an intensifier is in the structure. In Gast's proposal, each adverbial variant of the intensifier appears to be associated with a multitude of ad hoc movement operations in the sentences that contain them, a high price to pay in order to maintain the hypothesis that all intensifiers are base-generated adjoined to their antecedent. For this reason, I dismiss this approach and pursue the null hypothesis that the intensifier can be base-generated far from its antecedent. The next section describes the basic distributional characteristics of the intensifier.

5.3. Basic syntax

The intensifier is, syntactically speaking, not an argument of the verb and therefore does not receive a θ-role (or occupy an A-position). It is a modifier (or adjunct). Like most other constituents with such properties, its presence (or absence) does not affect the grammaticality of a given sentence. This is illustrated in (6), in which (a) and (b) differ only with respect to whether the subject, *Jan*, is intensified or not. The same statement applies to the English translations given below the Dutch examples.

(6) a. Janzelf   heeft   Marie   het   boek   gegeven
           John himself   *has*   *Mary*   *the*   *book*   *given*
           'John himself has given the book to Mary.'
     b. Jan   heeft   Marie   het   boek   gegeven
           John   *has*   *Mary*   *the*   *book*   *given*
           'John has given the book to Mary.'

Being a modifier, the intensifier is also expected to have a relatively free distribution within the sentence, on a par with other modifiers like *gisteren* (yesterday). Our expectation is confirmed by (7), which shows that *zelf* can occur in between most constituents of (6a).

(7) Jan**(zelf)** heeft **(zelf)** Marie **(zelf)** het boek **(zelf)** gegeven.

Despite the fact that the English intensifier is restricted to the adnominal, post-auxiliary and post-VP positions, it will be argued that its syntactic properties do not differ materially from its Dutch counterpart.[69]

Contrary to some authors (e.g. Bergeton 2004; Gast 2006), I do not assume any movement operations and suggest that the intensifier's surface position is (usually) also its base position. It can attach freely virtually anywhere in the sentence, provided its syntactic and semantic requirements[70] can be met. Since I do not assume that the intensifier moves, the distinction between base and surface positions is redundant, except in limited cases in which the intensifier undergoes A'-movement.[71]

There is general agreement that the intensifier interacts with or relates to some referentially 'richer' expression (e.g. a proper name) in the sentence it occurs;[72] the question that arises is which component of the grammar regulates this interaction. This will be the topic of discussion of the sections that follow.

5.4. A syntactic dependency

Based on Koster's (1987) observations, outlined in (8) below, I argue that the relation holding between the intensifier and its antecedent is of a syntactic nature (see also Shiraki 2006 for a similar conclusion). As Koster (1987) and Neeleman & van de Koot (2002; 2010) point out, if a relation between two constituents exhibits the properties in (8), this is an indicator of a syntactic dependency. Examples of dependencies that exhibit these properties are predication, anaphoric binding, obligatory control, movement and the licensing of negative polarity items. On the other hand, the relation holding between a pronoun and its antecedent does not have any of these properties,

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[69] The reduced freedom of the English intensifier, and in particular the adverbial versions of it, can be understood on the basis of general restrictions governing the distribution of clausal adjuncts interacting with the event in English (see section 4.8 for elaboration on this point).

[70] As already mentioned in previous chapters, the intensifier can be either ID taking as input a nominal referent or ID taking as input a nominal referent and the event denoted by the predicate. Naturally, this influences its distribution within the sentence.

[71] There are some cases in which the intensifier exhibits the properties of a moved constituent. In the Dutch example below, *zelf* must have been A'-fronted from a position below *Jan* (this will become clearer below when we see the syntactic restrictions imposed on *zelf*). Otherwise, it would not be able to bind with its antecedent through reconstruction (a well known property of A'-movement).

    a.   Zelf$_1$ heeft   Jan   Marie   (t$_1$)   onmoette.
         Himself   *has*   *John*   *Mary*   *met*
         'John has met Mary himself.'

[72] Virtually, any piece of work in the literature related to this topic explicitly or implicitly agrees on this (see König 1991; Siemund 2000; Eckardt 2000; Hole 2002; Shiraki 2006; a.o.)

indicating that it is regulated by syntax-external systems. It is therefore important to keep in mind that the properties below enable us to decide whether a relation is of a syntactic or syntax-external nature.

(8) a. The dependent must have an antecedent.

  b. The antecedent must be in a c-commanding position.

  c. The antecedent must be sufficiently close to the dependent (locality).

  d. Each dependent must take a unique antecedent.

Let us now consider to what extent the dependency that the intensifier enters into with its antecedent satisfies these properties. The first property is rather straightforward for the intensifier (the intensifier is the dependent and the associate DP the antecedent). The example below is ungrammatical because *herself* does not find an antecedent.

(9) *John built this house herself.

Examples (10) - (11) illustrate the c-command requirement for the Dutch case, as stated in (8b). In (10), *zelf* can only interact with the whole DP, *de moeder van Jan*, and not with *Jan*. This is because *de moeder van Jan* c-commands the intensifier but not *Jan*, which is embedded within this DP. In (11), *zelf* can only intensify the subject of the sentence, *Jan*, and not the object, *Marie*, again because only *Jan* is in a c-commanding position.[73]

(10) [$_{DP}$ De moeder van Jan$_1$]$_2$ heeft   zelf$_{(*1/2)}$ de boodschappen   gedaan.[74]
  The mother of John   has   self   the shopping   done.
  'The mother of John has done the shopping herself.'

(11) dat   Jan$_1$ gisteren   zelf$_{(1/*2)}$ Marie$_2$ onmoette.
  that   John   yesterday   self   Mary   met.
  '…that John met Mary himself yesterday.'

---

[73] Recall that *zelf* is not specified with the φ-features of number, gender and person, as it is the case for the English intensifier. Therefore, both *Jan* and *Marie* are potential antecedents of the intensifier in (11).
[74] Indices are used for concreteness sake and they do not bear any theoretical significance. Examples (10), (11) and (14) are taken from Shiraki (2006).

The same point is illustrated in (12) and (13) for the English intensifier. In (12) *herself* can only interact with the whole DP, *the mother of Mary*, and not with the embedded noun *Mary*. In (13) *herself* can only intensify the subject of the sentence, which is in a c-commanding position, and not the object, which is found in a lower position.

(12) [$_{DP}$ The mother of [Mary]$_1$]$_2$ has done the shopping herself$_{(*1/2)}$

(13) Mary$_1$ has herself$_{(1/*2)}$ raised an orphan girl$_2$.

(14) and (15) demonstrate the locality requirement (see (8c)) of the Dutch and English intensifier respectively. In (14) *zelf* cannot be interpreted as interacting with an antecedent outside the clause it is found in, the matrix subject *Hans*. It can only intensify arguments of the embedded clause, namely *Jan* or *Marie*. Similarly, in (15) *himself* can only be interpreted as interacting with one of the arguments of the clause it is found in, *Peter* or *Bill*, and not the matrix subject *John*.

(14) Hans$_1$ zei   dat   Jan$_2$ Marie$_3$ zelf$_{(*1/2/3)}$ onmoette.
       Hans   said   that   John   Mary   self   met.
       'Hans said that John met Mary himself **OR** Hans said that John met Mary herself.'

(15) John$_1$ said that Peter$_2$ met Bill$_3$ himself$_{(*1/2/3)}$

Finally, examples (16) and (17) highlight the property of uniqueness of the antecedent, as stated in (8d), for the Dutch and English intensifiers respectively. It is illustrated that both *zelf* and *themselves* cannot interact simultaneously with the two arguments of the clause.

(16) *   dat   Jan$_1$ Marie$_2$ zelf$_{(1 and 2)}$ onmoette.
          that   John   Mary   self   met.
          '…that John met Mary themselves.'

(17) *   John$_1$ met Mary$_2$ themselves$_{(1 and 2)}$.

Following the discussion of this section, it can be concluded that the properties of the dependency between the intensifier and the referent it associates with are compatible with the assumption that it is syntactic.[75] The next section offers an analysis of this dependency along the lines of the theory developed by Neeleman & van de Koot (2002; 2010).

5.5. Deriving the dependency between intensifiers and their antecedent

5.5.1.   Encoding syntactic dependencies; Neeleman & van de Koot (2002)

As Neeleman & van de Koot (2002) point out, the traditional encoding of a syntactic dependency based on coindexation is at odds with current minimalist assumptions and particularly with the principle of Inclusiveness, initially put forward by Chomsky (1995).

(18) **Inclusiveness**

The syntactic properties of a non-terminal node are fully recoverable from the structure it dominates; the syntactic properties of a terminal node are fully recoverable through mapping procedures. (Neeleman & van de Koot 2002 version)

Since Inclusiveness demands that any entity present in the syntactic structure should be sourced from the lexicon, indices, which are inserted on an ad-hoc basis, are inherently

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[75] Even though examples (12), (13), (15), and (17) clearly show that the English intensifier exhibits all the properties that indicate its entering into a syntactic dependency with its antecedent, a note is in order with regard to the property of locality. It has previously been argued that long distance reflexives (which, apparently, counter-argue Chomsky's binding condition A (Chomsky 1981; 1982; 1986a; 1986b)), or otherwise called untriggered reflexives, as in (a), are in fact intensifiers (Ross 1970; Baker 1995; Siemund 2000). (see Siemund 2000 for a review of all the contexts that accept untriggered reflexives)

a) Tom_1 believed that the paper had been written by Ann and $himself_1$.

The claim that *himself* in (a) is an intensifier would also counter-argue the view that the intensifier can only interact with local antecedents. However, the authors that argue in favour of the view that (a) contains an intensifier also propose that there is a covert pronoun immediately before the intensifier, which functions as its antecedent. Example (a) then looks like (b) before the deletion of the pronoun takes place.

b) Tom_1 believed that the paper had been written by Ann and him_1 $himself_1$.

Once we accept that *himself* in (a) is an intensifier and the covert pronoun story (see Siemund 2000 for an extended list of arguments in favour of the view that there is a covert pronoun in sentences like (a); see also Ross 1970, Baker 1995), the non-local binding of the intensifier is only a false impression. This is because the intensifier binds with the local c-commanding antecedent *him*, and not *Tom*. The pronoun, which is interpreted as *Tom* via syntax-external systems (e.g. pragmatics), becomes covert at some point in the derivation. This leaves us with the impression that the intensifier interacts with the non-local antecedent *Tom*.

incompatible with it. Chomsky (1995) points out that the theoretical apparatus that takes indices seriously as entities in their own right is questionable, and they should be replaceable without loss by a structural account of the relation they annotate. Neeleman & van de Koot's (2002) account does precisely that. Their proposal dictates that the dependent constituent in a syntactic dependency is lexically specified with certain properties that are responsible for establishing the dependency once they are inserted in a syntactic structure. In particular, we need to assume that the dependent element α carries a selectional requirement (SR) f which can be satisfied by a constituent δ carrying a specific property β that the SR is looking for. The dependency can be established while satisfying Inclusiveness, provided it is decomposed into more primitive relations; namely the introduction of the SR f by α, its upward copying until node ε (a node directly dominating δ), and its eventual satisfaction by β under direct domination, as dictated by the principle of Accessibility in (19) (satisfaction is indicated with a #).

(19) **Accessibility**

Relations between nodes require immediate domination.
(Neeleman & van de Koot, 2002)

Economy requires that a SR is satisfied at the earliest opportunity. In (20) for instance, both δ and γ are specified with the property β that can satisfy the SR f, however only δ is a suitable candidate because it is 'closer' to the dependent element.

(20)
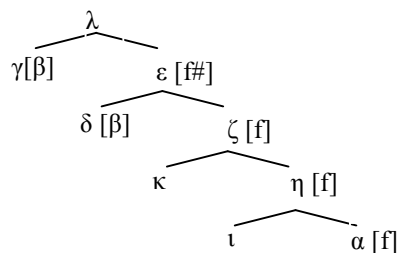
Copying is allowed only upwards. Downward copying associates a node with a property not inherited from its daughters or the lexicon, in violation of Inclusiveness. Satisfaction is only allowed downwards. Upwards satisfaction associates a node with a property that can only be recovered from its mother node, again in violation of Inclusiveness. As

Neeleman & van de Koot (2002) point out, copying involves transfer of information and therefore can apply recursively. By contrast, satisfaction does not involve the transfer of information, so that the "downward" path of application is restricted to one node down. The principles of Accessibility and Inclusiveness thus combine to yield c-command.

Example (21) and the respective structure in (22) illustrate how this approach applies to predication, another instance of a syntactic dependency. In (22) the predicate, *met*, is the dependent element that introduces the SR fθ (for θ-role), which can be satisfied by a property κ introduced by the two arguments, the antecedents, *John* and *Mary*. (even though I generally assume that subjects are generated in the VP and then move to some higher position, (22) tries to keep things simple by avoiding the introduction of any traces in the structure)

(21) John met Mary.

(22)

```
              TP [fθ#]
          /          \
    DP [κ]          T'[fθ]
    John         /        \
              T            VP[fθ fθ#]
                          /        \
                     V [fθ fθ]    DP [κ]
                       met         Mary
```
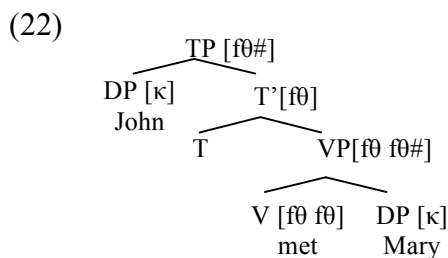
Equipped with the model just outlined we are now able to derive the syntactic restrictions imposed on the intensifier. I will assume that both the adnominal and adverbial intensifiers are lexically specified with the SR ID (this is in line with their core denotation). Let me emphasize that the SR ID is only intended to account for the relation between the intensifier and the nominal antecedent (i.e. the input of the identity function). We have seen that the adverbial intensifiers also take an event as part of their input and that this must take place under sisterhood. The SR ID is not to be held responsible for this part of the input of ID$_{adverbial}$.

5.5.2.   *Zelf* as a syntactically dependent element

This section is concerned with deriving the relation between the intensifier and its antecedent. The discussion will mostly be restricted to the Dutch intensifier *zelf*, even though the same discussion could take place, but will not in order to avoid repetition, using English data.

When *zelf* enters a syntactic structure it introduces ID, which is then percolated up the structure in search for an antecedent to be satisfied. However, not just any other constituent can serve as an antecedent. In order to qualify as suitable, the antecedent must be specified with the φ-features of person, number and gender. In other words it must be a nominal constituent. This process is illustrated below in (23) for example (6a) (only the relevant part of the structure is shown). A note is in order though with respect to the structure provided. It has been extensively argued by various authors (e.g. Siemund 2000, Gast 2006) that in sentences like (6a), in which the intensifier is adnominal to its antecedent, the two expressions form one constituent. In particular, the intensifier is an endocentric expansion of the DP it is found in.[76] Our structure in (23), and every structure that follows which contains an intensifier adjacent to the noun it associates with, is analysed according to the view that they form one constituent. In line with a big chunk of the current literature I also assume that the predicate combines with all its arguments before combining with any clausal adjuncts (including ID$_{adverbial}$). This implies that the subject is generated VP-internally.[77]Given the VP-internal subject hypothesis and the upward copying of SRs as soon as the corresponding expression encoding them is inserted in the structure, (23) posits *Janzelf* in specVP. (*Janzelf* then (minimally) moves to specTP)

(23)
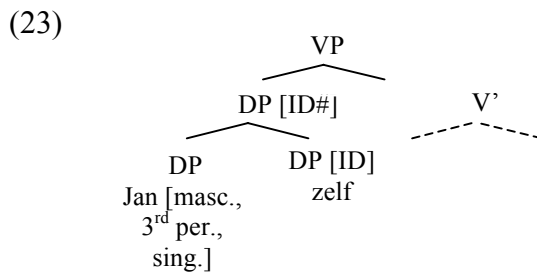
In (23) *zelf* percolates its SR ID in search for a constituent that is specified with the φ-features of person, number and gender. ID gets copied upwards once, where it finds a suitable antecedent, *Jan* (a DP which is specified with the φ-features 3rd person,

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[76] In fact, further evidence for this view has already been provided in (6a). It is generally accepted that Dutch is a verb second (V2) language. What this means is that the expression *Janzelf* (6a), which is found prior to the auxiliary verb, forms one constituent. Positing that *Jan* and *zelf* form separate constituents would go against the V2 character of Dutch; an undesirable move in the absence of independent evidence.
[77] Setting aside the multitude of evidence in favor of the VP-internal subject hypothesis, this choice is forced upon us for the inclusive intensifier, whose distribution (see section 4.8) suggests that it constitutes the event-external version of ID$_{adverbial}$. An event-external element cannot combine with the predicate before the event-internal elements do, at least on most current theories.

masculine, and singular). In this way a syntactic dependency between them is established. Note that this process adheres to the principles of Accessibility and Inclusiveness.

Apart from being able to be satisfied by a nominal constituent directly, as is the case in (23), I assume that ID can also be satisfied by a θ-role (for a similar idea, applied to anaphoric binding see Williams 1994 and Neeleman & van de Koot 2002). As we will see later on, this assumption is needed to account for the fact that the adverbial intensifier, which also introduces ID, may associate with any argument of the verbal predicate that c-commands the intensifier and not just the closest one (see example (29) below). It is based on the following rationale. A θ-role often looks for the same type of constituents as ID. The SR ID could therefore be satisfied by a mediated process: ID is first satisfied by an fθ; fθ is subsequently satisfied by an argument of the verb, which is frequently a nominal constituent.[78] This last step establishes the syntactic dependency between the intensifier and its nominal antecedent. Note that economy still applies. ID will be satisfied by either fθ or a nominal constituent, depending on which of the two appears first in its path. At first sight, this opens up the possibility for *zelf* with the adnominal reading to appear in the clausal domain. Consider the ungrammatical example below, in which *zelf* with the adnominal reading is distant from its antecedent.

(24)   * Jan_1 heeft $zelf_1$ de boodschappen   gedaan.   (reading: adnominal)
         John   *has*   *himself*   *the shopping*   *done.*
          intended reading: 'John himself has done the shopping.'

Given the possibility that ID can be satisfied by an fθ, (24) can be represented as in (25). As already mentioned, I assume that the subject is generated VP internally and then moves to specTP. (24) is an example in which the subject is chosen to fill specCP, hence the further movement of the subject to this position. I follow previous authors (e.g. Williams 1994; Neeleman & van de Koot 2010) in assuming that the trace of an A-moved category constitutes a one-place predicate introducing a θ-role. In terms of Neeleman & van de Koot's system, this is represented as fθ that must be satisfied in the landing site of the moved category. This satisfaction is subject to the same conditions that any other SR is, i.e. the principles of accessibility and inclusiveness. In (25), the

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[78] In case the argument of the verb is not a nominal, the derivation will eventually crash in semantics due to the requirement of the identity function to apply onto a nominal referent.

verbal predicate introduces two fθs, each one corresponding to one of its arguments. The fθ corresponding to the subject is satisfied by the trace of the subject in specVP. Semantically, this satisfaction corresponds to the mapping of the trace of the subject into a thematic relation (e.g. agency). The trace itself needs to be interpreted so it introduces its own fθ in the structure, which (eventually) gets satisfied by the DP in specCP (and the referent denoted by DP in specCP is in turn interpreted as the agent of the event). The net effect of this process is that the VP node immediately dominating the trace of the subject and V' will contain one unsatisfied fθ corresponding to the subject (notice that same process takes place at the TP level in (25)). This particular fθ can satisfy ID under direct domination.[79]

(25)　　　*
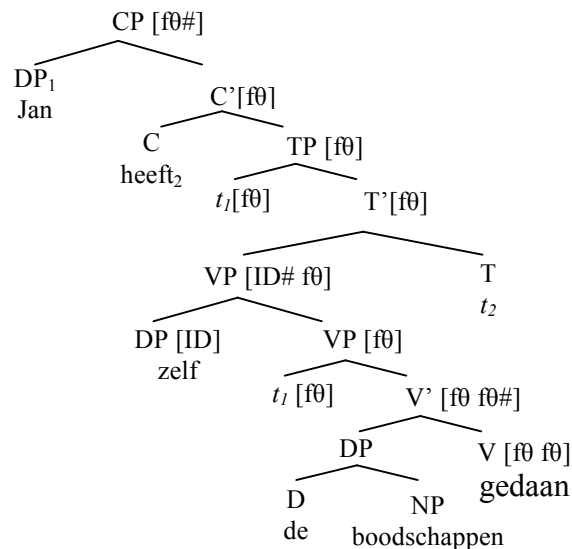
(25) indicates the possibility of ID being satisfied by the fθ percolated by the trace of the subject. The eventual satisfaction of this fθ should deliver a syntactic dependency between the intensifier and the subject. But (24) tells us that this is an impossible dependency. For such a dependency to become possible, *zelf* (with the adnominal reading) must be adjacent to its antecedent. On second thoughts this should not come as a surprise. Recall that syntactic dependencies are subject to the principle of Economy,

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[79] The structure given in (25), and every structure that follows, adheres to common held assumptions about the structure of a Dutch main clause. That is, the second position (or C position) is the landing site of either the auxiliary verb or the main verb in an auxiliariless clause. With respect to the first position (i.e. specifier of CP), it can be filled by pretty much any constituent, including the subject (as (25)), the direct or indirect object or an adverb. I assume that SpecCP is an A-position when occupied by the subject or a base-generated adjunct (such as *gisteren* 'yesterday), but an A'-position otherwise. As opposed to main clauses, main and auxiliary verbs stay in situ in embedded clauses.

which dictates that a SR must be satisfied at the earliest opportunity. As already explained, in case there are more than one possible candidates for satisfying a given SR introduced by a dependent element E, economy guarantees that the candidate 'closer' to E must satisfy it. In Neeleman & van de Koot's system, 'closeness' is calculated in terms of the number of upward copies a SR undergoes. The fewer the copies, the closer the satisfier is to E.

Let us now go back to the distribution of the adnominal intensifier. In principle, *zelf* can occur both adjacent to its antecedent and distant from it, and still establish a dependency with it. We therefore have two possible competing derivations, with exactly the same interpretation. As illustrated in (23), for the antecedent-adjacent *zelf* to establish a dependency with its antecedent, ID is required to only percolate one step up. In (25), the antecedent-distant *zelf* must also percolate ID only one step up. At this point, ID gets satisfied by an fθ. A dependency with the antecedent is not established yet however. The dependency between *zelf* and the antecedent can only be established once fθ is satisfied. It is invariably the case that the dependency between an antecedent-distant *zelf* (with the adnominal reading) and the antecedent requires more SR copies than the antecedent-adjacent *zelf* and the antecedent. Economy rules out the *zelf*-distant derivation because the same (adnominal) interpretation can be obtained with the more economical *zelf*-adjacent one. We can thus understand why the adnominal reading of the intensifier is always adjacent to the antecedent.

We have seen that the SR ID can, in principle, be satisfied directly by a nominal constituent or fθ.[80] The latter possibility allows the adverbial version of *zelf* to syntactically associate with a nominal antecedent. Example (10), repeated below as (26), is an instance of adverbial *zelf*, in particular, *zelf* with the exclusive reading. The corresponding structure follows in (27) ((27) is in line with the conclusion that the exclusive reading is VP-internal; in case *zelf* took the inclusive reading in (26), *zelf* would have adjoined to some VP-external element, e.g. the tense node).[81]

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[80] The former type of satisfaction semantically corresponds to the adnominal version of ID applied directly onto a referent. On the other hand, the latter, fθ-mediated, type of satisfaction semantically corresponds to ID$_{adverbial}$ applied onto an open argument variable of the verbal predicate (see section 4.7.1 for details). In section 5.6 I provide reasons for assuming that the semantic processes of ID or ID$_{adverbial}$ applying onto a referent or an open argument variable have a syntactic precedence.

[81] Recall that an adverbial intensifier is semantically different from an adnominal one in that only the former interacts with the event. This interaction can only take place under sisterhood, hence an adverbial intensifier must occur in the domain of the clause corresponding to some version of the event (e.g. the VP). A construction in which the adverbial intensifier is adjoined directly to its antecedent, as in (23), is ruled out for reasons of type mismatch.

(26) [DP De moeder van Jan₁]₂   heeft   zelf(*1/2)   de boodschappen   gedaan.

The mother of John   has   self   the shopping   done.

'The mother of John has done the shopping herself.'

(27)

```
                        CP [fθ#]
              ┌────────────┴────────────┐
           DP₁                        C'[fθ]
        ┌────┴────┐              ┌──────┴──────┐
       D          NP            C             TP [fθ]
       de      ┌───┴───┐      heeft₂      ┌─────┴─────┐
              N        PP              t₁[fθ]       T'[fθ]
           moeder   ┌──┴──┐                      ┌────┴────┐
                   P      NP                  VP [ID# fθ]    T
                  van     Jan              ┌──────┴──────┐   t₂
                                        DP [ID]        VP [fθ]
                                         zelf        ┌───┴───┐
                                                   t₁ [fθ]  V' [fθ fθ#]
                                                          ┌───┴───┐
                                                         DP      V [fθ fθ]
                                                      ┌───┴───┐  gedaan
                                                     D       NP
                                                     de   boodschappen
```
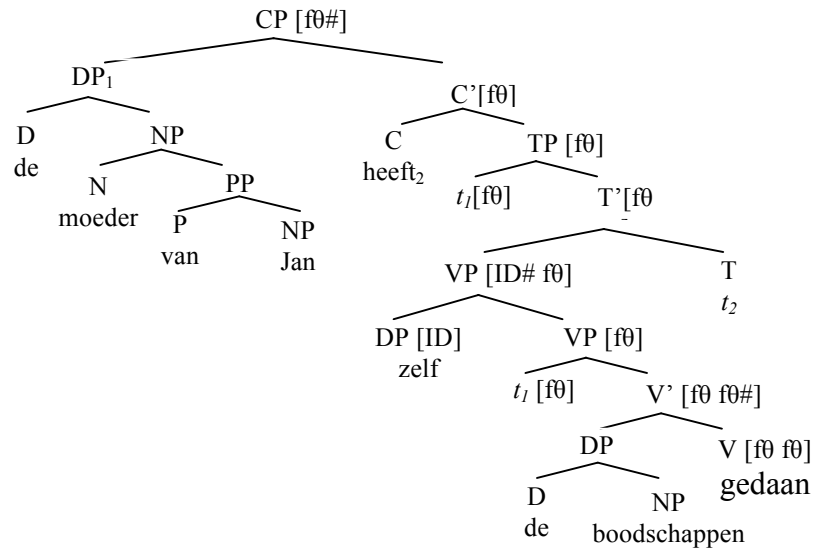
ID is copied one step up and satisfied under direct domination by the fθ destined for (eventual) satisfaction by the subject in specCP. In this way a dependency is established between *zelf* and the subject, semantically corresponding to the application of ID_adverbial onto the open variable eventually specified by the referent denoted by the subject.

The structure in (27) also exemplifies the c-command condition on the intensifier. ID is copied upwards and satisfied by fθ, which is eventually assigned to the whole DP *de moeder van Jan* under direct domination at the CP level. fθ cannot be satisfied by *Jan* because this would require either downward copying, in violation of Inclusiveness, or non-direct domination, in violation of Accessibility. Hence, a dependency between *Jan* and the intensifier cannot be established. Even though the direct object *de boodschappen* (the shopping) is also a constituent that fulfills all the requirements to qualify as an antecedent of *zelf*, the relevant relation cannot be established. This is because ID neither finds the constituent *de boodschappen* on its path when copied upwards (*de boodschappen* is below) nor 'meets' the fθ assigned to this constituent (this fθ does not even percolate up to the VP node because it has already been satisfied at the V' node).

Following the derivation of the c-command condition, the structure in (28) exemplifies the derivation of the intensifier's locality requirement, previously illustrated in (14) for both English and Dutch. The structure below corresponds to the English sentence in (14).[82]

(28)
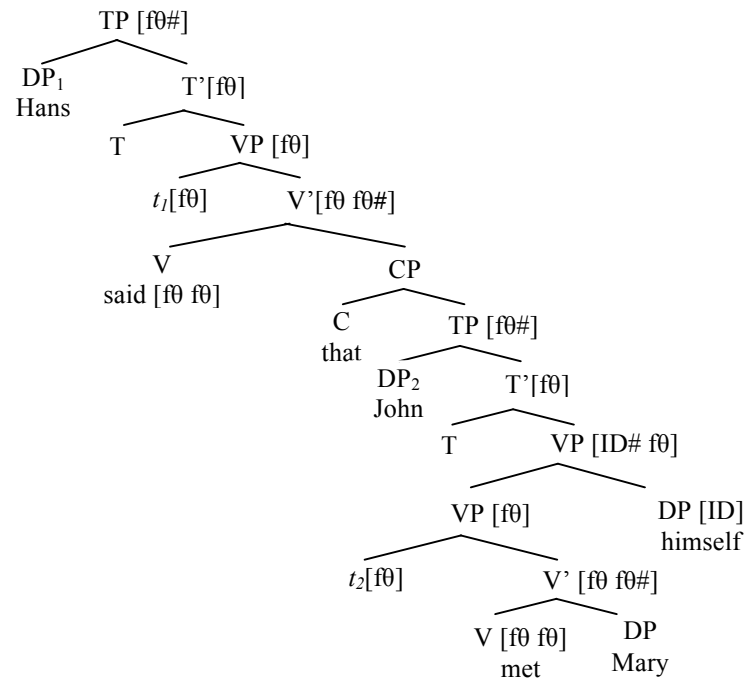
The adverbial intensifier in (28) establishes a syntactic dependency with the subject via the satisfaction of ID by the fθ percolated by the embedded subject's trace at the lower VP level and the ensuing satisfaction of this fθ by the subject in specTP. The analysis correctly predicts that the adverbial intensifier cannot associate with the matrix subject, *Hans*, as ID (which needs to be satisfied at the earliest opportunity) is satisfied by elements related to the embedded predicate. In this way, we can understand why the intensifier must always be local (i.e. within the same clause) to its antecedent.

The structure in (28) also correctly accounts for the fact that an adverbial reading of the intensifier in English is always subject-oriented. In virtue of its high attachment site, the SR introduced by *himself* (or *herself*) cannot interact with an object (or an fθ destined for that object) of the predicate. Our overall analysis correctly predicts that the only way for an intensifier to be object-oriented in English is by assuming its adnominal

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[82] I provide the tree for the English sentence in (14), and not the Dutch one, in order to avoid a significantly longer tree representing the multiple movements of subjects, extraposition of the object of the matrix verb, and movement of the matrix verb to C.

role (i.e. when it has to adjoin to the object). In Dutch however, an adverbial (exclusive) reading of the intensifier *can* be object-oriented. The Dutch version of the sentence represented in (28), that is (14), is three-way ambiguous. *Zelf*, which lacks a gender feature, is ambiguous between a) a reading in which the subject of the embedded clause, *Jan*, is exclusively intensified, b) a reading in which the direct object of the same clause, *Marie*, is exclusively intensified, and c) a reading in which, again the direct object of the embedded clause, *Marie*, is adnominally intensified. Given the previous discussion, reading (c) results from the intensifier adjoining to its antecedent, *Marie*, whereas readings (a) and (b) result from the intensifier adjoining to the VP. Note that the object-oriented exclusive reading of the intensifier (i.e. reading (b) of (14)) may also be linearly distant from its antecedent, as expected after all given the assumption that it does not adjoin to its antecedent. This is indicated in the example below, repeated from section 2.2.2.

(29)   *Context: I had been trying to get Mary, the head of the Research Department, to come to my office to discuss progress on the new prototype. But every time I emailed her with some question, she claimed to be busy and sent over an assistant to discuss the matter with me. But yesterday, after an email expressing deep reservations about RD's most recent budget overrun...*

...heb	ik$_1$	Marie$_2$	uiteindelijk	zelf$_{(2)}$	kunnen	spreken.
have	*I*	*Mary*	*ultimately*	*self*	*can*	*speak*

'Ultimately, I have spoken to Mary herself. (herself = exclusive reading)'

Such structures are made possible in Dutch by two independent facts about the language. First, there is no strict adjacency between the DP complement of a verb and the verb itself and second, a discourse given DP can A-scramble (i.e. move) above clausal adjuncts (see chapter 6 for more details on A-scrambling). *Zelf* is usually found in constructions in which the rest of the material, and especially its antecedent, is discourse given. Hence, the possibility of A-scrambling the object higher than the intensifier. After this operation, the object c-commands the adverbial intensifier, hence the possibility of associating with it. We can thus understand why the exclusive intensifier can be object-oriented in Dutch, but not in English. The structure of (a variant of) (29) is provided below (in order to avoid complications having to do with the presence of multiple verbs, the representation is for a variant that lacks the modal *kunnen*. I also assume that the object moves to an A-position position (called α) outside

the VP; nothing hinges on the choice of the object's landing position as long as it c-commands the intensifier).

(30)
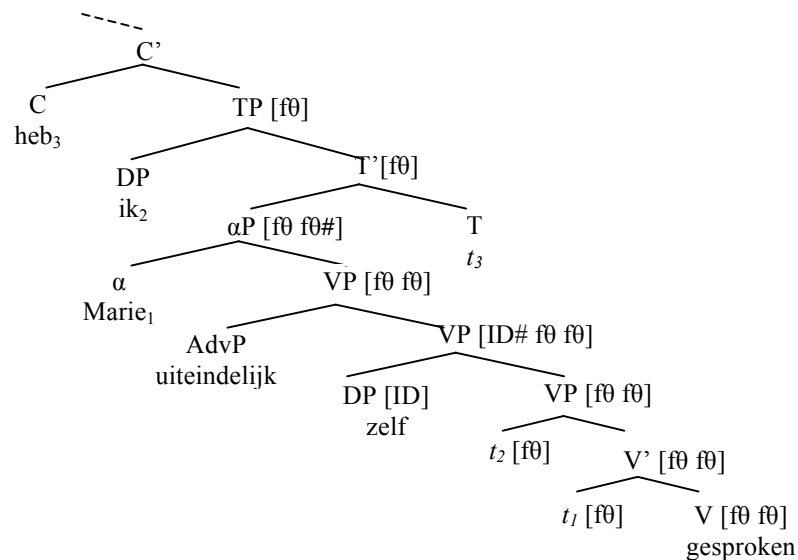
Notice that the structure in (30) correctly predicts that the sentence in (29) could take the subject as its antecedent given a different context. This reading could be made possible if ID interacted with the fθ percolated by the trace of the subject, instead of that of the object.[83] Note that it is due to data like (29) that we need the extra assumption that ID can also be satisfied by an fθ, and not only directly by the nominal antecedent. If we only assumed the latter, then we would expect *zelf* never to be able to interact with the subject in specTP. This is because ID would percolate up the tree and always find *Marie* first (remember that satisfaction happens at the earliest opportunity).

Before moving on to the next section, let me just point out that the intensifier's requirement to interact with a unique antecedent (see (8d)) as exemplified in (16) falls out naturally from our analysis once we consider the fact that ID can be satisfied only once (Neeleman & van de Koot 2002), either by an fθ or by an argument. approve

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[83] The reading in which the object acts as the antecedent of the intensifier involves fewer copies of SRs compared to the reading in which the subject is the antecedent. Nevertheless, both derivations are allowed because they are not in competition to begin with. Economy takes effect only when different derivations achieve the *same* reading, favoring the one with the fewest copies and ruling out the rest.

5.6. Against linking intensifiers and their antecedent in semantics

Treating intensifiers as linguistic elements encoding ID was shown to be advantageous with respect to explaining the properties of the relation holding between an intensifier and the nominal argument it associates with (and by extension some of the intensifier's distributional properties). However, as pointed out in chapters 2, 3 and 4, previous researchers (Eckardt 2001; Hole 2002, 2008; Gast 2006) suggest that the intensifier (which denotes ID) and the associated referent establish a dependency at the level of semantics. Indeed, all the properties associated with the relation holding between the intensifier and its nominal antecedent can also be explained on the basis of the semantic approach developed in previous chapters to explain the interpretation of intensifiers. This section argues that the semantic association between the intensifier and the nominal antecedent is a result of their interaction in syntax. The semantics is simply responsible for interpreting the syntactic structures/relations assumed in this chapter.

The argument that follows focuses on the possible expression that can be intensified; *not* the way it can be intensified. Syntactically, intensification is a result of the SR ID_{syntax} satisfied by a nominal argument. When the intensifier is in the clausal spine ID_{syntax} is satisfied by an fθ that eventually gets satisfied by the antecedent. The exact same processes appear in semantics. Semantically, intensification is a result of the identity function $ID_{semantics}$ applied directly onto a nominal argument. When the intensifier is in the clausal spine $ID_{semantics}$ applies onto an open argument variable x that eventually gets valued by the antecedent.

According to Eckardt (2001), the indirect combination of $ID_{semantics}$ and the antecedent (i.e. when $ID_{semantics}$ interacts with an open variable first) explains the less stringent combinatorial possibilities of an adverbial intensifier to interact with quantificational categories, which denote sets. This is because $ID_{semantics}$ associates with a variable, which at the level of semantics is treated as an individual (of type e). Remember that $ID_{semantics}$ operates on the domain of individuals (D_e), hence this open variable is a suitable associate. In other words, Eckardt argues that the adverbial intensifier can associate with sets because it has no control over the type of argument that it eventually associates with. The contrast between adnominal and adverbial intensifiers with regard to their sortal restrictions is indicated below.[84, 85]

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[84] Data illustrating the same point were already provided in chapter 1.
[85] As discussed in section 5.2, Gast (2006) assumes that the intensifier is consistently base-generated as sister of the associate DP and then through a series of movement operations a different surface position

(31) a.   Every student has written his dissertation himself.

b.   Some students have written their dissertation themselves.

c.   No student has written his dissertation himself.

(32) a.   * Every student himself has written his dissertation.

b.   * Some students themselves have written their dissertation.

c.   * No student himself has written his dissertation.

Both approaches can account for the sentences in (32). Since ID$_{semantics}$ operates on the domain of individuals (D$_e$) but the DPs *every/some/no student(s)* are quantificational, denoting sets and not individuals, the derivation crashes. The syntactic approach assumes that ID$_{syntax}$ gets satisfied by the quantificational DP (as it must be satisfied at the earliest opportunity and a quantificational DP does fulfill the φ-feature requirement). The problem arises when the derivation is transferred to the level of semantics, where the referent of each DP is not an individual but a set. The sentences in (31) are also explained by both approaches. Under the syntactic approach, ID$_{syntax}$ is satisfied by an fθ, which at the level of semantics is an entity of type *e* (an individual). Hence, there is no problem with the derivation, even though this fθ is eventually satisfied by a quantificational category. Under the semantic approach, ID$_{semantics}$ is satisfied by an open argument variable *x*, which is assumed to be of type *e*, as explained above, but is eventually valued by a quantificational DP. Hence, once again there is no problem with the derivation.

The critical example informing us about the place in the grammar where the relation between the intensifier and its nominal antecedent gets established is (33).

(33)   * John will herself$_1$ speak to [every girl]$_1$.

The ungrammaticality of the above example falls out naturally from the syntactic approach. The intensifier cannot be associated with the quantificational DP *every girl* because it is not c-commanded by it. The fθ percolated by the verb will get satisfied by its complement before it reaches the node that ID$_{syntax}$ is found, hence the impossibility

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may be derived. The data in (31) and (32) constitute a strong argument against this position. This is because Gast predicts that the combinatorial possibilities of the intensifier should remain stable irrespectively of its position in the sentence.

of associating the two constituents. This process is shown in (34) (only the relevant part of the structure is shown).

(34)

```
                    ‾ ‾ ‾ ‾ ‾
              VP[ID#]
        DP [ID]      VP[fθ]
        herself
                  t_john     V'[fθ fθ#]
                      V [fθ fθ]     PP
                        speak    P        DP
                                 to     every girl
```
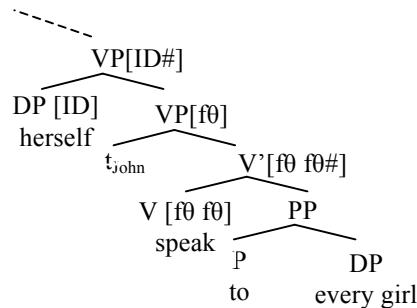
The example in (33) is not that easily explainable under the semantic approach. In fact, such a relation is predicted to be possible, contrary to fact. This is because, the universal quantifier in object position is standardly assumed to undergo quantifier raising (see Chomsky 1976, May 1977, Fox 2000, Sauerland 2005, a.o.). Crucially, this process takes place at LF (logical form). After this operation the universal quantifier *every girl* c-commands the intensifier. The individual variable it is associated with – x in the structure below – is a suitable argument for ID$_{semantics}$. The structure in (35) exemplifies this process for (33).

(35)

```
              ‾ ‾ ‾ ‾
      ∀ girl       y, x
           John        y, x
             will        (ID) y OR x
              herself (ID)     y, x
                    t_y            x
                          speak      x
                    QR         to      t ∀ (girl)
```
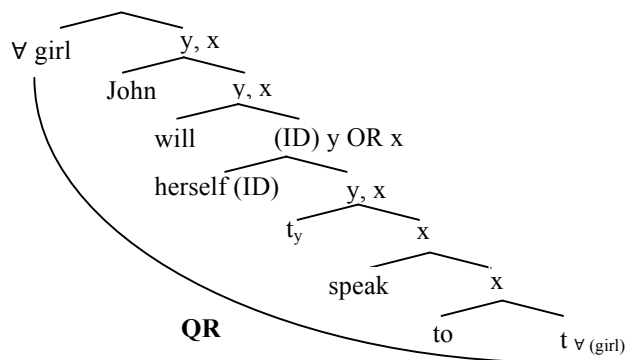
As shown in (35), quantifier raising leaves a trace (t) which is assumed to be the surface position of the raised DP. The trace position is assumed to be an open variable x, bound by the quantifier *every girl*, that follows a path up the structure to be interpreted in the

topmost juncture of the syntactic tree, where the quantifier combines with its scope. On its way up the tree, x 'meets' ID$_{\text{semantics}}$; therefore being able to establish a relation with it. Under a standard view of the grammar (i.e. T-model), this LF operation takes place before semantics. Hence, a purely semantic account (e.g. Eckardt 2001) wrongly predicts that (33) should be grammatical. (33)'s ungrammaticality leads us to the conclusion that the intensifier establishes a dependency with its associate DP before LF, in syntax.

5.7. Summary

This chapter initially demonstrated that the intensifier's relation with a nominal antecedent can be captured if it is assumed that this relation is syntactic in nature. By adopting Neeleman & van de Koot's (2002; 2010) machinery of syntactic dependencies, certain distributional properties of the intensifier were derived, including the impossibility of the adnominal reading of the intensifier to be adjoined to the clausal spine as well as the possibility of the Dutch exclusive intensifier to be object-oriented, as opposed to the English one.

Finally, I argued that, although the properties of intensifiers could also yield to a semantic account, there is one decisive argument – based on QR – that the relevant relation must be syntactic.

6. Information Structure and the distribution of intensifiers

6.1. Introduction

In previous chapters we have seen that an intensifier's distribution is conditioned by the following: a) the position of the referent it is intuitively understood to associate with, with which it forms a syntactic dependency; b) its lexical specification, that is, whether it semantically denotes ID or ID_{adverbial}. We have seen that in both English and Dutch intensifiers behave similarly in that they form a syntactic dependency with a nominal antecedent (i.e. (a)). The two languages are also similar in terms of the distribution of the intensifiers denoting ID and ID_{adverbial} (i.e. (b)), as is evident from the fact that the intensifier with the adnominal reading is always adjoined to the nominal antecedent whereas intensifiers with the exclusive and inclusive readings are always found in the clausal domain. The two languages differ however when it comes to the distribution of the two adverbial readings in the clausal domain. Generally speaking, English imposes stricter requirements on the position of different types of adverbials compared to Dutch. Due to this discrepancy, the former language naturally lent itself to testing the expectation (created by the view reached in the chapters related to the interpretation of intensifiers) that the distribution of the exclusive and inclusive readings should be matched with the restricted distribution of other adverbials interacting with the main predicate.

This chapter is devoted to exploring how Information Structure (IS) imposes restrictions on the intensifier's distribution, a task that, to my knowledge, has never been carried out before. Recall that the main hypothesis of this dissertation is that the intensifier is consistently marked with one of the following IS categories; focus, topic, contrastive focus (CF), contrastive topic (CT). It follows that any general restrictions imposed by IS on the distribution of constituents within a sentence could potentially influence the intensifier's distribution. Contrary to its English counterpart, the Dutch intensifier exhibits great flexibility in terms of its distribution in the clausal domain. This greater distributional freedom is also found with a variety of Dutch adverbials, including locational, temporal and manner adverbs. It is therefore not unexpected that the positional freedom of the intensifier tracks the more general freedom of adverbs in Dutch, given that both intensifiers and adverbs interact with the main predicate. I will not be concerned with the question as to why this greater distributional freedom obtains, as it is orthogonal to the issues under discussion. But I would like to emphasize that the

distributional flexibility of Dutch adjuncts works at our interest when it comes to checking the influence of IS on the intensifier's distribution. This is because, once we control for the position of the nominal antecedent (i.e. to be in a c-commanding and local position relative to the intensifier) and the reading of the intensifier (i.e. adnominal vs adverbial), we can be (relatively) confident that IS is the domain responsible for (potential) restrictions on the distribution of intensifiers.

(1), repeated from previous chapters, shows (in brackets) each potential position of the Dutch intensifier. *Zelf* can appear immediately after the subject, *Jan*, the auxiliary verb, *heeft*, the indirect object, *Marie* or the direct object, *het boek*.

(1) Jan$_1$ (zelf)$_1$ heeft (zelf)$_1$ Marie (zelf)$_1$ het boek (zelf)$_1$ gegeven
     John (himself)   has (himself)   Mary (himself)   the book (himself)   given
     'John (himself) has (himself) given Mary the book (himself).'

Neeleman & van de Koot (2008) and Neeleman et al (2009) show that IS has consequences for the ordering of arguments in Dutch (and other, unrelated, languages such as Russian and Japanese). This fact, combined with the distributional freedom of *zelf*, renders Dutch (but not English) a good testing ground for our predictions. In short, we expect *zelf* to interact with other IS-marked arguments of the sentence in a predictable manner. The result of this interaction will be shown to be the inhibition of certain linearizations (between *zelf* and other IS marked/quantificational categories); hence limiting the otherwise free distribution of *zelf* illustrated in (1).

Neeleman & van de Koot (2012a) explain the restrictions on the ordering of IS marked arguments in Dutch by appealing to the interaction between IS conditions and the theory of scope. They follow previous authors (see especially Kiss 1998) in suggesting that the IS notion of contrast is quantificational. Similarly to other quantificational categories, contrastive constituents take scope. Based on Williams (1994), they develop a unifying analysis of scope that treats quantificational and contrastive scope on a par; any conditions on scope shift influence quantificational and contrastive constituents in the same way. Section 6.2 is devoted to spelling out in more detail the main points of Neeleman & van de Koot's (2012a) theory of scope and how this theory explains the restrictions on the ordering of topics and foci in Dutch.

If I am correct in assuming that the intensifier is invariably IS marked, then this theory of scope makes certain predictions about the interaction of *zelf* with other IS

marked constituents as well as with other quantificational categories. Sections 6.3, 6.4 and 6.5 are intended to spell out these predictions in detail and show that they are correct. Section 6.6 concludes this chapter.

6.2. Neeleman & van de Koot (2012a); a theory of contrastive scope

In this section I outline the main points of Neeleman & van de Koot's (2012a) theory of scope. In doing so, I also present data from Dutch illustrating on the one hand that IS does impose restrictions on the order of arguments and on the other how the IS condition in (2) interacts with the proposed theory of scope to rule out certain argument linearizations.[86]

(2) **IS condition**

    a.   <u><u>topic</u></u> [... focus...]

    b. *focus [... <u><u>topic</u></u> ...]

Let me emphasise that (2) reflects IS rather than syntactic requirements. It requires a topical constituent to be interpreted externally to a focused one. This is because *topic* is an utterance level notion (see Krifka 2007, Tomioka 2009), while *focus* operates at the level of propositions. As Neeleman & Vermeulen (2012) point out, by their very nature, utterances are larger than propositions and consequently topics must be located externally to foci (see Tomioka 2009 for a proposal along these lines). Therefore, (2a) is a well-formed IS but (2b) is not.

    Since the IS condition in (2) imposes restrictions on the occurrence of topics and foci, it would be useful to remind ourselves of the definitions of each category. In short, the term *focus* is reserved for constituents that receive the main stress of the sentence (see Selkirk 1984, 1996; a.o.) and usually express new information. For instance, recall that the constituent answering a wh-expression is standardly assumed to be in focus. In (3), this constituent corresponds to *the selfish gene*.

(3)   A: What did John read?

        B: He read THE SELFISH GENE.

---

[86] Recall our notational conventions for IS marked constituents. Topics are doubly underlined, foci appear in small caps and contrastive categories are italicised.

With respect to *topics*, I follow Reinhart (1981) in characterizing them in terms of "aboutness". I also follow the general consensus in the literature in distinguishing between 'discourse topics' and 'sentence topics'. Discourse topics refer to entities that a unit of discourse is about, whereas sentence topics are syntactic constituents used to introduce a referent that the sentence is about. A sentence topic may introduce a new discourse topic or may narrow down or change the current discourse topic. Crucially, sentence topics do not include constituents that are merely discourse-anaphoric. For what follows it is essential that the notion 'topic', including its use in condition (2) is understood to mean *sentence topic* (discourse topics are not directly relevant to the content of this dissertation).

A comparison of the examples in (4) and (5) (taken from Neeleman & van de Koot 2008) serves to demonstrate the point that (2) is an IS condition and *not* a syntactic one. Let me note again that CFs require an A-accent whereas CTs are pronounced with B-accent (Jackendoff 1972; see Van Hoof 2003 for a characterization of the B-accent in Dutch).

(4) A: Hoe zit het met *FRED*? Wat heeft *HIJ* gegeten?
     B: Nou, dat weet ik niet, maar ik geloof…
     A: 'What about Fred? What did he eat?'
     B: 'Well, I don't know, but I believe…'

a.	dat	<u>*Wim*</u> van de *BONEN*	meer	gegeten	heeft	dan	vorig jaar
	that	*Bill from the beans*	*more*	*eaten*	*has*	*than*	*last year*

b. # dat [van de *BONEN*]₁ <u>*Wim*</u> t_1 meer gegeten heeft dan

      that   *from the beans*   *Bill*   *more* *eaten* *has* *than*

    vorig jaar

    last year

    '…that Bill has eaten more from the beans than last year.'

(5) A: Hoe zit het met de *SOEP*? Wie heeft *DIE* gegeten?
     B: Nou, dat weet ik niet, maar ik geloof…
     A: 'What about the soup? Who ate that?'
     B: ' Well, I don't know, but I believe…'

   a. dat   *WIM*   van <u>*de bonen*</u>   meer   gegeten   heeft   dan   vorig jaar

       that   Bill   from the beans   more   eaten   has   than   last year

   b. dat   [van <u>*de bonen*</u>]$_1$ *WIM t$_1$*   meer   gegeten   heeft   dan

       that   from the beans   Bill   more   eaten   has   than

       vorig   jaar

       last   year

       '…that Bill has eaten more from the beans than last year.'

In (4), the context is set up in such a way as to be able to pronounce, and thus interpret, *Bill* as a CT and *the beans* as a CF. In particular, the constituent *the beans* answers the wh-expression and is therefore a focused constituent. *Bill* is interpreted as a topical constituent because the question asks about *Fred* but instead information is offered about *Bill*, an instance of a switch topic. *Bill* is interpreted contrastively because of the contrast with *Fred*. *The beans* is interpreted contrastively once we put these sentences in a context of a party. Parties usually have a selection of food, hence *the beans* contrast with other types of food. By these criteria, *Bill* is a CF and *the beans* is a CT in (5). Assuming that these sentences are found in a context of a party again, *Bill* must be a CF because it is the constituent that answers the wh-expression and at the same time contrasts with other people attending the party. On the other hand, *the beans* can be interpreted as a CT because the question asks about *the soup* and information about the *beans* is offered instead. The data can be summarised as follows; in (4a) the in-situ topic c-commands the in-situ focus and the sentence is felicitous. On the other hand, in (4b) the moved focus c-commands the topic and the sentence is infelicitous. The ungrammaticality of (4b) is in sharp contrast to the well-formdness of (5a), where once again a focused constituent c-commands a topic. In this case, however, the focus has not moved. Finally, in (5b) there is a moved topic c-commanding an in-situ focus. This sentence, too, is felicitous. From a comparison of these data, we can thus conclude that the effects of (2) become apparent only when a topic is c-commanded by a *moved* focus. If it were just a matter of syntax (or c-command), both (4b) and (5a) should be infelicitous, which is not the case.

The data in (4) and (5) contain contrastive arguments. In Dutch, such arguments can either move or stay in-situ. The movement operation in (4b) and (5b) results in the altering of the basic order of arguments in Dutch (subject-indirect object-direct object), which in Dutch can only be achieved through an A'-operation. In particular, A'-scrambling contrasts in this respect with A-scrambling, as the latter operation is restricted in Dutch to reordering arguments and adjuncts. Abstracting away from A-scrambling (see Reinhart 2006 among others for further discussion), A'-fronting is typically associated with a contrastive interpretation of the moved arguments, as is the case in (4b) and (5b). A similar effect can be observed for the English example below (repeated from chapter 3), in which the A'-fronted constituent also requires a contrastive interpretation (see chapter 3 for a discussion of the interpretation of contrast).

(6)   A: John read The Extended Phenotype.
      B: (No, you're wrong.) THE SELFISH GENE he read. THE EXTENDED PHENOTYPE he only bought.

As Neeleman & van de Koot (2008) point out, A'-scrambling can target a variety of positions in Dutch, irrespective of the whether the moving phrase is a CT or a CF. Among other positions, the moved phrase can land in a position between the complementizer and the subject, between the subject and the indirect object, or in first position in main clauses (see Neeleman & van de Koot (2008) for data confirming these claims). In a series of articles, Neeleman and colleagues propose that A'-movement of a contrastively marked element determines its scope, much like A'-movement of other quantificational elements. This proposal is based on the idea that sentences containing contrastive elements involve a negative operator in their semantics (see chapter 3 for the semantics of the notion of contrast). The presence of this negative operator is what makes contrast quantificational (see also Kiss 1998 on this point). Put informally, contrast gives information about the relation between two sets, similarly to every other quantifier (i.e. every, some). On this view, contrast in (6B) expresses to what extent the set α of contextually relevant books is contained in the set β of things that John read. Two assertions are made: a) one member of α is also a member of β, and b) there is at least one other member of α that is *not* contained in β (The Extended Phenotype). The presence of alternatives and the positive statement in (a) are a result of the semantics of

focus, whereas the negative statement in (b) is a result of the semantics of contrast. The movement of the contrastive constituent marks what material is included in the scope of the negative operator, the domain of contrast (DoC). Neeleman and colleagues formalise this proposal as follows:

(7)   **DoC marking**

In (8), N_2 is interpreted as the domain of contrast of XP.

(8)   **DoC marking**[87]

$$N_1 \text{ [M\#]}$$

$$XP_{[contrast]} \quad N_2 \text{ [M]}$$
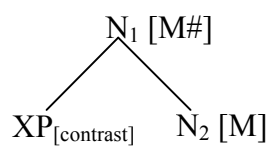
Recall the basic assumption from chapter 3, when the semantics of contrast was given, that a DoC is assumed to be based on an expression containing a single λ-bound variable. For ease of exposition I repeat this semantics for (6B).

(9)   a   <λx [John read x], The Selfish Gene, {The Blind Watchmaker, The Ancestor's Tale, The Extended Phenotype,...}>

b.   ∃y [y ∈ {The Blind Watchmaker, The Ancestor's Tale, The Extended Phenotype,...} & ¬[John read y]].

Note that contrastive elements that remain in-situ do not mark a DoC. Instead, this is construed (appropriately) on the basis of contextual clues. This can be the sister of the contrastive category (in other words its c-command domain) or the sister of the contrastive category along with other material not contained in its surface scope.

Since contrast is quantificational, the null hypothesis is that contrastive scope (or DoC) and quantificational scope are part of the same system. Indeed, Neeleman & van de Koot (2012a) propose that contrastive scope can be analysed on a par with quantifier scope, within the limits of a generalised theory of scope. The authors follow Williams (1994) in that scope extension is represented at LF as percolation of an index originating in the quantified or contrastive expression. The scope of such an expression

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[87] M diacritics are selectional requirements introduced by the trace position of an A' moved constituent. These are comparable to Pollard and Sag's (1987, 1994) slash features.

coincides with the largest category that carries its index, minus the expression itself. This is shown in (10), in which the scope of CE (for Contrastive Expression) is γ, the category that eventually inherits index 1 (inherited indices, as opposed to non-inherited ones, are placed after a colon).

(10)

```
              α
           ╱     ╲
         β        γ :1
               ╱     ╲
             δ        ε :1
                    ╱     ╲
                  ζ        CE 1
```
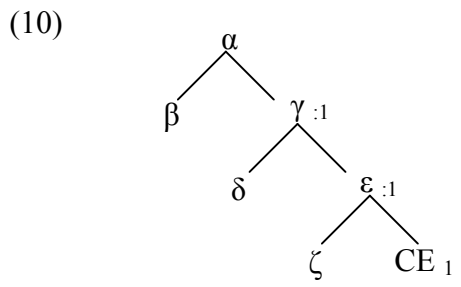
Scope taking can also be achieved via the overt movement of a quantified or contrastive expression (as is the case in (4b), (5b) and (6B)). It is assumed that this way of scope taking involves percolation of the scope index from the moved category to the node that immediately dominates its landing site (on a par with Williams's 1994 adjunct scope rule). Interpretively speaking, this operation is the same as before, so that in (11) the scope of CE is α minus the CE itself. This equals to γ.

(11)

```
              α :1
           ╱     ╲
        CE 1       γ
                ╱     ╲
              δ        ε
                    ╱     ╲
                  ζ        t
```
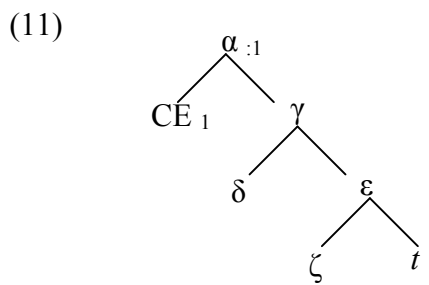
Neeleman & van de Koot (2012a) further suggest that the scope of an in-situ quantified/contrastive category can be its c-command domain. This is the default scope rule and is shown schematically in (12), in which the scope of CE is again γ.

(12)

```
           α
          / \
        CE   γ
            / \
           δ   ε
              / \
             ζ   η
```
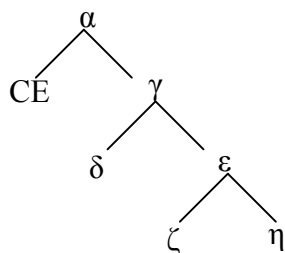
In (13) I summarize the ways in which the scope of the quantified/contrastive category may be established.

(13) a. The scope of an in-situ contrastive/quantified expression is its c-command domain. (default scope rule)

   b. The scope of an in-situ contrastive/quantified expression that percolates a scope index is the highest node carrying the scope index minus the contrastive/quantified expression itself. (DoC marking)

   c. The scope of a *moved* contrastive/quantified expression is determined by the percolation of a scope index to the node that immediately dominates its landing site, so that that node minus the contrastive/quantified expression represents its scope. (DoC marking)

The choice between (13a) and (13b) is determined by the *Economy* principle in (14), which is intended to block scope extension where it does not give rise to inverse scope.

(14) **Economy principle**

   Scope extension must give rise to an otherwise unavailable interpretation.

Finally, Neeleman & van de Koot (2012a) make the key claim in (15), which is crucial for explaining the restrictions imposed on the linearization of IS marked constituents in Dutch.

(15) **Condition on Scope Shift (CSS)**

   No node may inherit more than one scope index.

According to the condition in (15), (16) is inadmissible. This is because γ inherits two scope indices, one from each CE.

(16)   *

α :1
┌──┴──┐
β   γ :1,:2
   ┌──┴──┐
   CE₂   ε :1
       ┌──┴──┐
       ζ   CE₁
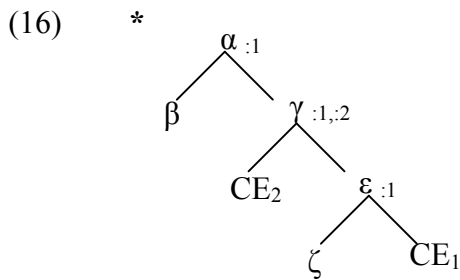
Recall that the interaction of topics and foci is restricted by the IS condition in (2), which requires topics to be interpreted externally to foci. (2) combined with the CSS in (15) can now explain the data in (4) and (5). (17) and (18) constitute schematic representations of (4) and (5) respectively.

(17)   a.   [… _topic_ … FOCUS …]
       b.   * [:1,2… FOCUS $_1$ … [:2 … _topic$_2$_ … t_{focus} …]]
(18)   a.   [:2 … FOCUS … [:2 … _topic$_2$_ …]]
       b.   [:2… _topic$_2$_ … [… FOCUS … t_{topic} …]]

In a situation like (17a), the topic is interpreted externally to focus in virtue of the fact that the topic c-commands the focus. Thus, the IS condition in (2) is adhered to without the need for index percolation (the default scope rule applies). The situation in (17b) is an instance of A'-scrambling. The CF moves above the CT. In order to conform to the condition in (2), the topical constituent percolates its index above the moved CF. However, in accordance with (13c), the CF must also percolate its index up to the node that immediately dominates its landing site. This results in this node inheriting two indices, in violation of the CSS, hence the infelicity of sentences exhibiting the state of affairs in (17b). In (18a) the focused constituent is again found higher than the topical one. This time though, both constituents are in-situ. The topic may thus freely percolate its scope index above the focus in order to comply with (2), without incurring a violation of the CSS. Finally, the felicity of sentences schematized as (18b) has a straightforward explanation. The topic is found higher than the focus; even though this is the result of the movement of the former from a position lower than the latter. Being a moved constituent, the topic is forced to percolate its scope index to the node that immediately dominates its landing site. In this way the focus is found within the scope

196

of the topic and the condition in (2) is satisfied. Note that movement of a CT across a CF will avoid a CSS violation, whether the CF itself has moved or not.[88]

6.3. Reflecting on the scope marking of intensifiers

The theory outlined in the previous section creates certain expectations about the distribution of *zelf*. In short, we expect a contrastive instance of *zelf* to take scope.[89] If this is the case, the conditions in (2) and (15) should apply. This can be checked by looking at contexts in which, aside from *zelf*, there are other contrastive categories.

Before going into this however, we first need to establish the way in which *zelf* could take scope. Two things are related to this; first, the intensifier is an adjunct but the theory outlined in the previous section only talks about the way (quantificational) *arguments* take scope, and second, the intensifier can both be adjoined to an argument or a predicate projection. The former issue – of how an adjunct would take scope - already finds an answer in Williams (1994) as well as in Neeleman & van de Koot (2012a), even though the latter authors do not discuss it directly. Recall that the mechanism representing scope, as outlined in (13), suggests that scope can be established in three distinct ways; by c-command (the default scope rule), by scope index percolation to a dominating node, and by scope index percolation to the node immediately dominating the landing site of a moved argument. In contrast to arguments, non-arguments (or adjuncts) must always take scope over their sister node, and not to a higher dominating node.[90] Williams (1994) calls this the *Adjunct scope rule*. This can be seen in the example below (taken from Williams 1994), in which *always* can only modify the embedded verb *lie* and not the matrix verb *think*. In addition, *always*, which

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[88] This section only provides the tools needed for explaining the IS distributional restrictions on *zelf*. For more supporting evidence (e.g. interactions between IS marked constituents and quantifiers) on this view of scope taking see Neeleman & van de Koot (2012a) and references therein.

[89] Recall that one of the conclusions drawn in chapter 3 is that an adverbial intensifier is usually contrastively marked (in virtue of the type of centrality effect it imposes). The adnominal intensifier on the other hand can be both contrastively and non-contrastively marked. We thus expect the conditions in (2) and (15) to invariably influence the distribution of an adverbial intensifier. In order to discover how these conditions influence the distribution of the adnominal intensifier, a contrastive interpretation will be forced on it in this chapter.

[90] This is not exactly true as there is one instance in which the scope of an adjunct can be extended more freely up to a dominating node, namely the maximal projection of the head of the phrase that the adjunct is adjoined to. This is when the head is the sister of the adjunct. Williams (1994) explains this as follows: a head's scope extends up to its maximal projection (and no more). Since the head is in the scope of the adjunct and the head has its maximal projection in its scope, then by transitivity the adjunct can have the phrase (projected by the head) in its scope. This can be seen in the example below, in which *quickly* can have wider scope than *everyone*. This is because *quickly* is adjoined to the head of the phrase containing *everyone*, the auxiliary *will*, and hence can take maximal scope (at the root of the structure).

   a. Everyone [will quickly] arrive.

is a quantified expression itself, cannot be understood to take scope over the quantified expression *someone*, giving an interpretation of the sort 'Every time is such that someone or other thinks that Bill at that time lies'.

(19)   Someone thinks that Bill always lies.

Being a non-argument, the expectation then is that contrastive *zelf* will not extend its scope freely to a dominating node. This conclusion is based on the idea, outlined in the previous section, that contrast is quantificational in nature. Marking an expression *x* contrastively leads to the assigning of quantificational properties to *x*. Thus, if quantificational adjuncts cannot extend their quantificational scope higher than their c-command domain, neither will contrastive *zelf*. We are then left with two options, the default scope rule or one-step index percolation. In terms of which part of the structure is included in the scope of the adjunct, both options have the same effect; they both result in rendering the sister of the adjunct as its scope. Nevertheless, the option of index percolation up to the node that dominates the adjunct (so only one step up) seems to be favored.

Recall that according to the theory outlined in the previous section, an A'-moved contrastive/quantificational category marks its scope in the landing site. However, in that position such a category does not occupy an argument position. Hence the scope of an A'-moved argument should be assigned by the adjunct scope rule. Of course, we have already seen that a moved CF gives rise to a CSS effect if it c-commands a CT, while an in-situ CF does not. We must therefore assume, as does Williams (1994), that adjuncts mark their scope through a one-step index percolation.

Based on this reasoning we have now answered the first question, namely how adjuncts are expected to take scope. At this point a note of caution is in order with respect to the difference between the various ways of scope-taking in (13). Until now the three ways of scope-taking were treated on a par. Crucially though, they are distinct in terms of the domain of grammar they are realized in. Whereas (13b) and (13c) are ways of taking scope via a syntactic mechanism (that is index percolation), in which case a DoC is marked, (13a) is only represented at a semantic level, in which case a DoC is *not* marked. Contrastive *zelf* is, hence, not only expected to have a scope, but to mark scope in a way that is visible at the syntactic level; that is, to mark a DoC. However, given that the intensifier can be adjoined to a DP (adnominal) or a predicate

projection (adverbial), there is still some way to go until a hypothesis is formed regarding the scope-marking possibilities of *all* intensifiers. The reason that a distinction between these two versions of the intensifier needs to be made lies in the fact that a DoC is, by definition, an open propositional entity determining the nature of the alternative set of propositions. Take the example below.

(20)   *[THE SELFISH GENE]$_1$* John read t_1.

In (20) the CF constituent is syntactically displaced and the rest of the sentence is its DoC, which constitutes an open proposition. (20) is matched with propositional alternatives of the type *John read x*, in which *x* is replaced with other values (e.g. other books). An implementation of this can be found in the context of structured meanings (Jacobs 1983; Von Stechow 1990; Krifka 2006) or alternative semantics (Rooth 1985, 1992). Given these considerations, the contrastive adverbial intensifier, which is found in a propositional environment, should be able to mark its DoC pretty straightforwardly (i.e. by the adjunct scope rule or, in Neeleman & van de Koot's terms, by one step up scope index percolation). Of course, we have seen cases in which a contrastive element's DoC, such as *zelf*'s, does not constitute a complete proposition. This happens, for example, when a contrastive direct object moves across an indirect object to a position below the subject. This shorter movement gives rise to a smaller DoC. This has consequences for the number of contexts with which the resulting sentence is compatible. A larger DoC is a more specific DoC and hence compatible with fewer contexts. The following examples, suggested by Hans van de Koot (p.c.), illustrate this.[91]

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[91] It should be pointed out that the data in (21) (22) are accepted by a subset of Dutch speakers. This is due to dialectal differences.

(21) A: Jan heeft Marie DIT boek gegeven.
      B: Nee, dat is niet waar.
      'A: John has given THIS book to Mary.
       B: No, this is not true…'

    a.   maar   het is wel zo   dat   [DAT boek]$_1$ Jan   Marie t_1
           but   *it is true*   *that*   *THAT* *book*   *John* *Mary*
           gegeven   heeft
           given   *has*
           'but it is true that John has given THAT book to Mary.'

    b.   ? maar   het is wel zo   dat   Jan   [DAT boek]$_1$ Marie t_1
           but   *it is true*   *that*   *John* *THAT* *book*   *Mary*
           gegeven   heeft
           given   *has*
           'but it is true that John has given THAT book to Mary.'

(22) A: Jan heeft Marie DIT boek gegeven.
      B: Nee, dat is niet waar.
      'A: John has given THIS book to Mary.
       B: No, this is not true…'

    a.   ? maar   het is wel zo   dat   [DAT boek]$_1$ iemand   Marie t_1
           but   *it is true*   *that*   *THAT* *book*   *someone* *Mary*
           gegeven   heeft
           given   *has*
           'but it is true that someone has given THAT book to Mary.'

    b.   maar   het is wel zo   dat   iemand   [DAT   boek]$_1$ Marie t_1
           but   *it is true*   *that*   *someone* *THAT*   *book*   *Mary*
           gegeven   heeft
           given   *has*
           'but it is true that someone has given THAT book to Mary.'

The exchange in (21) concerns the question which of two books *Jan* has given to *Marie*. The scope of the relevant contrast is most naturally captured by the larger DoC in (21a), although the smaller DoC indicating that the contrast concerns which of two books was given to Marie (irrespective of the identity of the giver) can be easily accommodated by assuming that the giver in all focus alternatives is *Jan*. By contrast, in the exchange in (22), the larger DoC marked in (22b) is incompatible with the context, as it requires the same individual to be the giver in all focus alternatives. However, the whole point of using an indefinite as the subject in the reply is to indicate that the speaker does not know who gave the relevant book (although they know it was a different book from that indicated by speaker A). The contrast therefore concerns which book was given to

Marie, but crucially abstracts away from the identity of the giver in the focus alternatives.

The above data constitute strong support for Neeleman et al's (2009) claim that in cases in which the DoC is not a complete proposition, as in (21b) and (22b), existential closure must apply to the DoC. This means that the argument that is not included in the DoC will be represented by an existentially bound variable, as shown in (23b).

(23) a. <λx [iemand Marie x gegeven heeft], dat boek, {dit boek}>
      b. ∃y [y ∈ {dit boek} & ∃z¬ [z Marie y gegeven heeft]]

If we follow this suggestion, then we may indeed conclude that the same mechanisms that allow a CT or CF argument to mark a propositional DoC should suffice for establishing the DoC marked by an adverbial intensifier. A DP, however, is argumental and not propositional; it follows from this that a contrastive *adnominal* intensifier is found in an environment that is ill-suited for marking a DoC.

Recently, there has been some discussion about the extent to which sentence level IS phenomena are mirrored at the DP level. At issue here is not the question whether components of the DP can be given/discourse anaphoric, which seems uncontroversial; rather, the question is whether DP internal distributional variation can be associated with topic, focus or contrast. Szendroi (2010) discusses this issue, using evidence from adjective reordering in English and Greek polydefinites, and illustrates that the noncanonical sequence of phrases inside the DP does not take place for satisfying some sort of interface requirements related to DoC marking (but see Trueswell 2005; Scott 2002). Instead, the author argues that the atypical adjective ordering of a DP like *a black big car* as in (24) is a result of the discourse anaphoricity or giveness (see Schwarzschild 1999) of the rest of the phrases in the DP. Note that the usual ordering between the subsective adjective *big* and the intersective one *black* is reversed; hence the heavy stress on the latter.

(24) My friends all drive big cars, but only I drive a BLACK big car.

I will not go through the arguments given by Szendroi (2010) here, but I will hang onto the conclusion that a DP-internal phrase cannot mark a DoC, precisely because DoC is a

propositional entity, a requirement that can only be fulfilled by clausal structures, and not DPs.

Assuming that DoC is quantificational, this conclusion is in agreement with Moulton's (2013) conclusion that nominal quantification is dependent on the presence of (some amount of) clausal structure. As the author argues, the reason behind the inability of the quantified expression in (25a) to take scope below the raising verb *seem* lies in the fact that neither the verb nor the adjective *sick* provide enough clausal material to license the quantificational force of *someone*; hence the impossibility of scope reconstruction below the verb, even if *someone* is raised from a position below the verb (which is in fact what the article argues for). On the other hand, the subject of (25b) *can* be interpreted below the scope of the raising verb. In this case, the quantificational noun also raises from a position below *seem* (i.e. the subject position of the infinitival clause). The presence of enough clausal material, provided by the copular verb, licenses *someone*'s quantificational force and thus allows it to reconstruct and take scope below *seem*.

(25)   a.   Someone seems sick.   *someone>seem; *seem>someone*
       b.   Someone seems to be sick   *someone>seem; seem>someone*

Moulton's (2013) conclusion is in perfect tune with Szendroi (2010), even if the former author refers to (syntactic) clausal material, whereas the latter refers to (semantic) propositional environment. The quantified argument *someone* cannot take scope below *seems* because the adjectival predicate *sick* does not seem to qualify for a propositional entity. The main moral of this discussion is that DoC marking requires, in Moulton's (2013) terms, at least a certain amount of clausal structure or, in Szendroi's (2010) terms, a propositional environment to be licensed. What we can be certain about is that the DP domain cannot fulfill either of these requirements.

We have seen both theoretical and empirical considerations suggesting that the adnominal intensifier is not expected to establish its scope in the same way that its adverbial counterpart is. The unavoidable conclusion seems to be that the adnominal intensifier should not mark a DoC to begin with. But if the adnominal intensifier does not mark a DoC, like its adverbial counterpart, then what is going on?

At this point, it is worth looking at other cases in which a subpart of the DP is phonologically contrastive. Take the example below, repeated from chapter 3.

(26)   A: The female popstars performed well.

        B: No, the MALE POPSTARS performed well.

In (26B) the accentuated phrase is only the adjective *male*, which is adjoined to the DP *popstars*. Nevertheless, the mainstream view is that the CF constituent is the DP *male popstars*. In particular, the stress only on *male* in (26B) evokes alternatives of the type *female popstars*, or more generally *adjective + popstars*, and not just *female*. In fact, contrary to expectations, the head noun *must* remain destressed given the context of (26A). The general consensus in the IS literature is that the head noun remains destressed because it is *given*. Schwarzschild (1999) suggests that the grammar makes reference to *giveness* and includes a statement along the lines of (27).

(27)   Lack of prominence indicates giveness.

Starting from Halliday (1967), giveness has received various treatments in the literature (see Selkirk 1984, 1996; Schwarzschild 1999; Wagner 2012; Williams 2012; a.o.). Without going into unnecessary detail, Schwarzschild (1999) suggests that an utterance counts as given iff it is entailed by prior discourse. Since entailment can only hold among propositions, he also introduces ∃-type-shifting, ''a sort of type shifting operation that raises expressions to type t, by existentially binding unfilled arguments.'' (Schwarzschild, 1999:147). Giveness is defined as follows:

(28)   An utterance U counts as given iff it has an antecedent A and A entails U,

        modulo ∃-type-shifting.

The definitions in (27) and (28) can now explain the prosodic behavior of the contrastively focused DP the *male popstars*. (26A) contains the DP the *female popstars*, something which renders *popstars* as given because of the ∃-type-shifting and the entailment in (29).

(29)   ∃x(female-popstars(x)) → ∃x(popstars(x))

Given this explanation, we can now safely assume that, despite the non-accentuation of the head noun, the CF expression in (26B) is the whole subject DP *the male popstars*.

Scope-taking will thus follow the rules given by Neeleman & van de Koot's (2012a) theory. Put differently, the subject DP in (26B) will behave in the same way that an adjectiveless CF marked DP does in terms of scope-taking.

It seems reasonable then to conclude the same state of affairs with respect to the CF adnominal intensifier in (30B).

(30)   A: The brother of John went to the cinema.
       B: No, *JOHN HIMSELF* went to the cinema.

We can assume that the presence of the CF intensifier in (30B) renders the whole nominal projection it is adjoined to (i.e. the maximal projection of the head noun) a CF. The lack of stress on the head noun, *John*, results from the fact that it is given in (30A). Scope-taking of an adnominal intensifier is thus expected to happen indirectly, via the node dominating both the head noun and the intensifier. This node is argumental and will take scope in accordance with the rules given in the previous section (see (13)).

The above discussion leads to the following hypothesis:

(31)   **Intensifier scope taking hypothesis**
       a.   The *adverbial* intensifier marks a DoC directly. In this case the adjunct
            scope rule applies invariably (one step up scope index percolation).
       b.   The *adnominal* intensifier takes scope indirectly, via the head noun it is
            adjoined to. In this case the rules in (13) apply.

It follows from (31) that different predictions arise about the possible interactions of each version of the intensifier with other IS marked constituents in the sentence. Before spelling out these predictions in detail, however, I would like to discuss an issue that arises with respect to the hypothesis in (31b).

This issue has to do with the alternatives that the adnominal intensifier evokes and, in particular, what assumptions we need regarding the IS-marking of the intensifier and its antecedent in order to get the alternatives right. A basic tenet of this dissertation (see especially chapter 3) and, generally, of the literature on intensifiers is that the alternatives evoked are individuals that are understood to be peripheral in some way to the intensifier's antecedent. So, the use of the intensifier in (30B) evokes peripheral referents to its antecedent (John), including *the brother of John* (see chapter 3 and

Siemund 2000 for a detailed discussion of the possible realizations of peripherality). As explained in chapter 3, in order to derive the peripherality effects of the alternative referents, or put differently, the centrality effect of the intensifier's antecedent, this dissertation initially adopted the insight, first put forth by Eckardt (2001), that the intensifier denotes the identity function ID and is IS marked *locally*.[92] Based on this assumption, (32) illustrates the IS marking of the expression *John himself* as found in the context of (30). Notice the different IS marking assumed in (30B) and (32).

(32)   John *HIMSELF*

Importantly, the assumption that the intensifier is IS-marked locally delivers the correct alternatives, as already briefly illustrated in chapter 3. This is because PER (the peripherality function) is induced and applied onto the same referent that ID is applied onto, thus delivering referents peripheral to that referent. For this to work, the intensifier's antecedent is required to remain in the background in an example like (30B). Put differently, *John* cannot be in focus, as assumed by the IS marking of *John himself* in (30B). If the whole expression *John himself* were IS marked, which is essentially what our hypothesis in (31b) states, then the alternative referents are predicted to be different from what they actually are, namely not only referents peripheral to the intensifier's antecedent but in fact any kind of referent. This is because alternatives to the intensifier's *antecedent* will also be induced, resulting in PER being applied onto referents other than the intensifier's antecedent, and hence peripheral referents to individuals other than the intensifier's antecedent. The different IS marking represented in (30B) and (32) and the different predictions that follow from each are illustrated in the table below, in which the alternatives of the expression in question of (30B) are restricted to the DP level (i.e. the rest of the proposition is not represented), which is what is relevant here.

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[92] Recall that *IS local marking* refers to the kind of IS marking which is restricted to the intensifier. So the intensifier is the *only* element that is IS marked; its antecedent is (usually) not IS marked.

(33)	**Type of IS marking**	**Type of alternative referents**
a.	John _HIMSELF_	PER(John)$_1$ (e.g. the brother of John),
		PER(John)$_2$ (e.g. the mother of John), etc
b.	_JOHN HIMSELF_	PER(Mary)$_1$ (e.g. the brother of Mary),
		PER(Bill)$_2$ (e.g. the mother of Bill), etc

Thus, even though the hypothesis in (31b) is in agreement with basic assumptions of IS theory, it has an important downside, namely that it provides us with the wrong alternatives shown in (33b). What we need is a theory that treats the whole DP in (32) as a CF and at the same time makes sure that the intensifier's antecedent remains present in all alternatives.

Indeed, it has already been proposed in chapter 3 that this conundrum can be solved by assuming the following:

(34)   An intensifier _always_ marks its antecedent as discourse anaphoric.

I believe that (34) can solve the puzzle we encountered before in a parsimonious way. First, we can explain why the intensifier's antecedent usually remains destressed, even if it is part of the IS marked constituent in the adnominal case. This follows from independently motivated considerations (see discussion above), which dictate that a discourse anaphoric constituent usually remains destressed, even when IS marked.[93] We can also account for why the intensifier's antecedent is always present in the alternatives. Eckardt (2001) (among others) explains this by assuming that the intensifier's antecedent remains in the background (or DoC, in our terms, when the intensifier is contrastive). But (34) is equally able to explain this and at the same time allows us to maintain (31b). In fact, in view of the following, Eckardt's suggestion

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[93] As Vieri Samek-Lodovici (p.c.) pointed out to me, it is not always the case that discourse givenness implies destressing, as is evident from the possibility of placing an A-accent on a discourse anaphoric pronoun.

a) John's mother likes HIM.

I'm not sure what to do with this. To my defense, so far as I know similar data do not obtain DP internally (i.e. placing an accent on a DP internal discourse old element), which is our area of concern here.

regarding the local IS-marking of the adnominal intensifier must be discarded in favor of the IS-marking indicated in (30B) and the concomitant assumption in (34).[94]

The adnominal intensifier can be felicitously used as part of the constituent that answers a wh-expression. Such constituents are generally taken to be in focus.

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[94] Is it possible though to do things in a different way? Szendroi (2012) discusses another way that maintains the idea that DoC operates at the propositional level whilst suggesting that focusing at the DP internal level is possible (contrary to what she suggests in Szendroi 2010). In her view, an expression like *John himself* would be CF marked as in (32), repeated below, in which only the intensifier is the CF.

   a)   John *HIMSELF*

Recall that Neeleman et al (2009) suggest that when the contrastive element does not scope over a complete proposition existential closure applies. This results in the elements not included in the contrastive element's DoC to be represented in semantics by existentially bound variables, which are then referentially specified by the context. "Similarly, if domain of contrast marking takes place inside the DP argument, the predicate and the remaining arguments will be represented by existentially bound variables and specified further by the preceding context" (Szendroi 2012: 193). Even though the author does not develop her idea in full detail, her account implies some sort of operation that raises an argument to a proposition. Schwarschild's (1999) provides this option by suggesting the operation of $\exists$-type-shifting. This would immediately satisfy the requirement of notions like DoC and background to operate on propositions, in cases that a subpart of the DP is IS marked. More concretely, take the expression like *John himself* and assume the IS marking in (a). Assuming that (31a) applies to the adnominal intensifier, the DoC of the contrastive element is *John*, and nothing else. Since *John* does not constitute a proposition, it undergoes $\exists$-type-shifting, resulting in (b).

   b) $\exists x(John(x))$

This could potentially allow for a unified theory of intensifier scope taking. In principle, we could assume only (31a), in which the intensifier marks a DoC by one step-up index percolation, for both the adnominal and adverbial versions. Note that under this view (34) is still required, as it was shown that DoC or background does not equal to discourse anaphoricity.

In my view however, Szendroi's approach suffers from several problems. As Hans van de Koot (p.c.) points out to me, this view requires an adjunct to be able to percolate a scope index freely in cases in which a contrastive adjective remains in-situ but is c-commanded by other non-contrastive material. The reason for this is due to Szendroi's (2012) claim that, in such cases, an expression with in-situ adjective has the same interpretation as in the expression in which the contrastive adjective moves higher than the non-contrastive material. Hence, the DoCs of the moved and non-moved adjective cases are assumed to be the same. This is essentially against Williams's (1994) adjunct scope rule. However, as we will see later on, there is evidence requiring us to maintain the adjunct scope rule.

Another issue has to do with the use of $\exists$-type-shifting that Szendroi's (2012) view seems to require. Of course this begs the question as to what type of expressions $\exists$-type-shifting can be applied to. We have already seen an example in (25a), repeated below in (c) in which a predicative adjective cannot be shifted to a proposition, because if it would, the raised expression *someone* should be able to exert its quantificational force below *seem*.

   c)   Someone seems sick (*someone>seem; *seem>someone*)

In the absence of independent motivation as to why nouns, but not adjectives, can undergo $\exists$-type-shifting, this approach remains doubtful.

Finally, Szendroi's (2012) view has consequences for the kind of alternatives we expect. Now, the alternatives are calculated locally, at the DP level, something which implies that sentences containing expressions like the one in (a), in which only a subpart of the DP is contrastive, will be evaluated based on contrasting entities and not contrasting sentences (as it is the standard treatment since Rooth (1985, 1992)). Szendroi, Mulders and Hooge (2008) provide eye-tracking evidence against such conclusion.

(35)   A: Who did you see today during your visit to Buckingham Palace?

B: You won't believe it! I saw THE QUEEN HERSELF

The Queen is part of the constituent answering the wh-expression, hence it cannot be part of the background.

Example (35) is instructive for another reason. The inquisitive reader may have wondered as to why the need for the extra assumption in (34). After all, as already suggested in the discussion surrounding (30), we could assume that the antecedent's consistent lack of stress is an indication of his/her discourse giveness. However, the discourse in (35) does not render *the Queen* as given. What this means is that we cannot always rely on prior discourse in order to judge the intensifier's antecedent as given. In view of examples like (35), (34) is certainly not redundant because it makes sure that the intensifier's antecedent is understood as discourse given (and thus destressed), even if it is not mentioned in prior discourse. This may sound contradictive, but lets think about it for a moment. Restricting my attention to *the Queen*'s discourse status, it was argued in chapter 3 that it is focused in two different ways. One, via being part of the constituent answering the wh-expression in the question. In this sense, *the Queen* is discourse-new. In line with the received wisdom in the IS literature, the focus set of this particular instance of focusing will consist of any relevant proposition, as long as the position corresponding to *the Queen herself* is filled by an entity that fulfills a [+human] requirement (e.g. I saw John, I saw Bill, I saw the president). The second way in which *the Queen* interacts with focus structure is via its interaction with the intensifier. In this case, the entities replacing *the Queen herself* in the alternatives need to fulfill a [+human] requirement as well as a peripherality to the Queen requirement (e.g. I saw the Queen's gardener, I saw the Queen's driver, I saw the Queen's secretary).[95] However, in order to be able to construct a peripheral structure to *x*, one needs to be

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[95] As discussed in chapter 3, evidence for the existence of this second set of alternatives comes from the fact that not just any referent can function as the antecedent of the intensifier in wh-question contexts. If we decide to replace *the Queen* in (35B) with *John*, the discourse immediately becomes infelicitous.

a.   A: Who did you see today during your visit to Buckingham Palace?
B: #You won't believe it! I saw JOHN HIMSELF.

John is an impossible antecedent for the intensifier in this context because a peripheral structure is not immediately available to the interlocutors, as opposed to the *Queen* that is taken to be central in any context or, contexts in which a peripheral structure *is* immediately available for *John*, as in (30). Since this peripheral structure to *John* is not readily available in a context like (a), the focus set induced by the use of the intensifier remains empty. In other words, the use of the intensifier is redundant.

able to access *x*. Put differently, *x* must be known, or discourse-given, for the construction of a peripheral structure around *x* to become possible. It is in this sense that *the Queen* must be understood as discourse-given in (35).

The conclusion we can draw from this discussion is that even if the intensifier's antecedent is in focus, it must still constitute given information, in some (unusual) sense. Hence, (35) forms initial evidence in favor of the IS marking in (30B) and the assumption in (34). Further evidence which I take to be conclusively against the option expressed in (32) (i.e. the intensifier is IS marked locally and the antecedent part of the background) come from the following. Suppose that a contrastively marked DP internal expression, such as the adnominal intensifier, does mark its sister expression as its background/DoC. For the option in (32) to work, this implies that the background of an expression will always equal to given information. If not, we will not be able to guarantee the giveness of the intensifier's antecedent. Indeed, as Szendroi (2012) discusses, the background/DoC) of a contrastively focused element does *not* always equal to its discourse anaphoricity. Arguably, in the example below (adapted from Szendroi 2012), the non-canonical ordering of the two adjectives *red* and *big* is licensed by the contrastive accent on *red*. On the view that DP internal background/DoC marking is possible, this would render the rest of the DP, which is in the immediate scope of *red*, as its background/DoC. If background/DoC equal to discourse giveness, it is expected that both *big* and *bus* should be discourse given, and thus destressed. As illustrated, the *bus* is nevertheless discourse-new and can receive contrastive stress.

(36)   I'd really like a big car. But a RED$_1$ big t_1 BUS would be fine too.

(36) suggests that something like (34) is at play in order to guarantee the intensifier's requirement to associate with a discourse given referent. It also renders approaches (e.g. Eckardt 2001; Gast 2006; Hole 2008) which consider the intensifier to be IS marked locally to be on the wrong track.

6.4. Information Structure restrictions on the distribution intensifiers

Following the above discussion, I maintain the hypothesis in (31b), along with the one in (31a). Both are repeated below for ease of exposition.

(37)   **Intensifier scope taking hypothesis**

    a.   The *adverbial* intensifier marks a DoC directly. In this case the adjunct scope rule applies invariably (one step up scope index percolation).

    b.   The *adnominal* intensifier takes scope indirectly, via the head noun it is adjoined to. In this case the rules in (13) apply.

(37) makes a clear distinction between the two instances of the intensifier in the way they take scope, something which should have traceable consequences with respect to the interaction of each instance of the intensifier with other IS marked expressions. The general predictions are as follows.

(38)   **Intensifier scope taking predictions**

    a.   The adverbial intensifier may trigger intervention effects when occurring with other IS-marked expressions.

    b.   An adnominal intensifier attached to an in-situ host is expected not to trigger intervention effects when occurring with other IS marked expressions.

Of course these predictions follow from the IS condition in (2), repeated below as (39), which requires a topic to be interpreted externally to focus, coupled with the condition on scope shift in (15), repeated below as (40).

(39)   **IS condition**

    a.   topic [... FOCUS...]

    b. *FOCUS [... topic ...]

(40)   **Condition on Scope Shift (CSS)**

    No node may inherit two scope indices.

As already pointed out, the fact that Dutch does not impose any significant restrictions on the positioning of adverbs makes this language prominently suitable for checking our predictions. Since the intensifier's position is quite variable, we should be able to observe restrictions on this variability resulting from interaction with other IS marked categories.

The hypothesis in (31) combined with the IS condition in (2) and the CSS give rise to the overall patterns in (41) (in the following table adnominal *zelf* is represented as *adnzelf* and adverbial *zelf* as *advzelf*).

(41) a.   [… *topic* … ADVZELF …]

     b.   *[… ADVZELF … *topic*…]

     c.   *[… FOCUS … *advzelf* …]

     d.   [… *advzelf* … FOCUS …]

     e.   [… ADNZELF … *topic* …]

     f.   [… *topic* … ADNZELF …]

     g.   [… *adnzelf* … FOCUS …]

     h.   [… FOCUS … *adnzelf* …]

To sum up the table, we expect an infelicitous sentence when the CF adverbial *zelf* c-commands a CT as well as when it is a CT and is c-commanded by a CF. In all other instances we expect felicity.

The data in (42) contain the adverbial *zelf*, marked as CF, and another argument, *Marie*, marked as CT. Just a few words about the context first. The context is set in such a way as to be able to pronounce, and thus interpret, *Marie* as a CT and *zelf* as a CF. *Marie* is interpreted as a CT because the question asks about *Angela* but instead information is offered about *Marie*, an instance of switch topic. *Marie* also contrasts with *Angela*, hence the contrastive interpretation. *Zelf* is interpreted as a CF for the following reasons: a) its antecedent x answers the wh-expression; b) x contrasts with other salient individuals (i.e. John's staff) who could have addressed *Marie*; c) the adverbial intensifier always inherits the antecedent's IS marking (see chapter 4 for motivation). Finally, note that the context in (42) is further set up in such a way as to render the use of an adverbial *zelf* felicitous. This is because other individuals (i.e. John's staff) who could have done the action of addressing the American colleagues are provided, allowing a non-delegation reading of *zelf*. As already discussed in chapter 4, the non-delegation reading is compatible (only) with an adverbial instance of the intensifier. A comparison of (42a) and (42b) already confirms a subset of our predictions.

(42)   *Context: Several American colleagues (including Mary and Angela) have worked on a project in John's department, but are now returning to the US. Every American colleague was to get a little farewell speech. John is very shy and always tries to avoid having to do or say anything in front of his staff. This time the situation is even more delicate, as he has had a fling with Angela.*

      A: Zeg, hoe zit het met Angela? Wie van Jan's medewerkers heeft haar toegesproken?
      B: Nou, daar ben ik niet zeker van, maar …
      A: And what about Angela, who of John's staff has addressed her?
      B: Well, I'm not sure, but …'

  a. [Jan [heeft [*Marie* [:1 *ZELF*$_1$ [een paar woorden [toegedicht]]]]]]

     John   has   Mary   himself   a   couple   words   to-spoken
    'John has said a couple of words to Mary himself.'

  b. # [Jan [heeft   [:1,:2 *ZELF*$_2$ [:1 *Marie*$_1$ [een paar woorden

     John   has   himself   Mary   a   couple words

     [toegedicht]]]]]]
     to-spoken

    'John has said a couple of words to Mary himself.'

(42a) illustrates that a CF adverbial *zelf can* be in the scope of the CT *Marie*. *Zelf* percolates its scope index up to the node dominating it, so one step up. *Marie* is found higher, and thus, by the default scope rule, can scope over *zelf*. This allows for the CT to be interpreted externally to the CF, as required by the IS condition in (39). There is only one scopal index in the structure, that of *zelf*, and hence no violation of the CSS in (40) occurs either.

The felicity of (42a) is in contrast to the infelicity of (42b). In the latter, the two expressions in question switch positions. The CF *zelf* is now found higher than the CT *Marie*. By the condition in (39), the CT is required to percolate its scopal index (marked with *1*) above the CF. However, the node dominating *zelf* already contains an index (marked with *2*), inherited by the CF marked adverbial *zelf*. This results in the node immediately dominating *zelf* (among other material) inheriting two scope indices, in violation of the CSS; hence the infelicity of the sentence.

Note that the pattern in (42) is confirmed by a context that licenses the use of the CT-marker *daarentegen* 'by contrast'. This can be seen in (43), in which *daarentegen* follows *Marie,* thereby verifying its CT status.

(43)   *Context: Same as (42).*

A: Zeg, is Angela door Jan's secretaresse toegesproken?
B: Ja, maar …
A: 'By the way, has Angela been addressed by John's secretary?
B: Yes, but …'

a.   [Jan   [heeft   [*Marie*   [daarentegen   [:1 ZELF$_1$ [een   paar woorden

John   *has*   *Mary*   *by-contrast*   *himself*   *a*   *couple words*

[toegedicht]]]]]]]

to-spoken

'John has said a couple of words to Mary, however, himself.'

b. # [Jan   [heeft   [:1,:2 ZELF$_2$ [:1 *Marie*$_1$ [daarentegen   [een   paar woorden

John   *has*   *himself*   *Mary*   *by-contrast*   *a*   *couple words*

[toegedicht]]]]]]]

to-spoken

'John has said a couple of words to Mary, however, himself.'

I now look at a context that facilitates the reverse assignment of topic and focus roles. In particular, *Marie* may now be interpreted as a CF because of the contrast with *Angela*. On the other hand, *zelf* can be interpreted as a CT because the question requires information about *John's secretary*, but instead about *John*, *zelf*'s antecedent, is provided. Finally, the adverbial use of *zelf* is felicitous due to the possibility, provided by the context, of delegating the addressing to *Marie*.

(44)   *Context: Same as (42).*

        A: Zeg, en Jan's secretaresse, wie heeft zij toegesproken?
        B: Nou, daar ben ik niet zeker van, maar …
        A: 'And what about Jan's secretary, who did she address?
        B: Well, I'm not sure, but …'

    a. # [Jan   [heeft [MARIE [:1 <u>*zelf*</u>₁ [een   paar woorden [toegedicht]]]]]]

        John   has   Mary   himself a   couple words   to-spoken

        'John has said a couple of words to Mary himself.'

    b. [Jan   [heeft [:1 <u>*zelf*</u>₁ [MARIE   [een   paar woorden [toegedicht]]]]]]

        John   has   himself Mary   a   couple words   to-spoken

        'John has said a couple of words to Mary himself.'

The data in (44) are in accord with the hypothesis in (38a). In (44a), the CF expression, *Marie*, is higher than the CT one, *zelf*. Since *zelf* marks its scope by the adjunct scope rule, it cannot extend its scopal index higher than the CF. As a result, the sentence is infelicitous due to the IS condition in (39). By reversing the order of the two expressions, as in (44b), this condition is satisfied and the felicity of the sentence is restored. Once again, the pattern in (44) is confirmed by a context that licenses the use of the CT-marker *daarentegen* 'by contrast', as shown in (45).

(45)   *Context: Same as (42).*

> A: Zeg, is Angela door Jan's secretaresse toegesproken?
> B: Ja, maar …
> A: 'By the way, has Angela been addressed by John's secretary?
> B: Yes, but …'

a. # [Jan   [heeft [MARIE   [:1 <u>*zelf*</u>$_1$ [daarentegen [een paar woorden

    John   has   Mary   himself   by contrast   a   couple words

    [toegedicht]]]]]]]
    to-spoken

    'John has said a couple of words to Mary, however, himself.'

b. [Jan   [heeft [:1 <u>*zelf*</u>$_1$ [daarentegen   [MARIE [een paar woorden

    John   has   himself   by contrast   Mary   a   couple words

    [toegedicht]]]]]]]
    to-spoken

    'John has said a couple of words to Mary, however, himself.'

Note incidentally that the data presented up to now cannot find an explanation in terms of the distribution of given/old versus new information in the sentence. It is well known that in languages like Dutch and German the distribution of adverbs is influenced by whether arguments constitute new or given information in the sentence. As the two Dutch examples given below (taken from Neeleman & van de Koot 2008) indicate, a discourse anaphoric DP is preferred to the left of an adverb, whereas the same DP is preferred to the right of the same adverb in case it has not been mentioned in prior discourse (for German see Engels 2012).

(46)   Hoe zit het met je review van dat boek van Haegeman?
    'How are you progressing with your review of that book by Haegeman?'

a. #Nou ik denk dat ik morgen   het boek van   Haegeman ga lezen.

    Well, I think that I   tomorrow the book from Haegeman go read

    'Well, I think that I will read Haegeman's book tomorrow.'

b. Nou   ik denk dat ik   het boek   van   Haegeman   morgen   ga lezen.

    Well I think that I   the book   from   Haegeman   tomorrow go read

    'Well, I think that I will read Haegeman's book tomorrow.'

(47) Hoe zit het met de voorbereidingen van je examen?
'How are you progressing with your exam preparations?'

    a. Nou ik denk dat ik morgen   het boek van Haegeman ga lezen.

      Well I think that I tomorrow the book   from Haegeman go read

      'Well, I think that I will read Haegeman's book tomorrow.'

    b. #Nou ik denk dat ik het boek van Haegeman morgen   ga lezen.

      Well   I think that I the book from Haegeman tomorrow go read

      'Well, I think that I will read Haegeman's book tomorrow.'

In (46), *Haegeman's book* is mentioned in the question, and thus scrambling of the coreferential DP in the answer above the adverb *tomorrow* is preferred. This operation is better known as A-scrambling. In (47) however, *Haegeman's book* is not mentioned in the question, hence its scrambling above *tomorrow* is disfavored.

Going back to the data with the adverbial *zelf*, we have seen instances in which *zelf* is felicitous to the left of an argument and other instances in which *zelf* is felicitous to the right of the same argument (compare, for instance, (42) with (44)). Based on the observations in (46) and (47), it could be argued that, since *zelf* is an adverbial itself, its different positioning in (42)–(45) is a result of A-scrambling. Considering the fact however that the context remains the same throughout (42)–(45) such an explanation is untenable, simply because the newness/giveness of the arguments involved remains stable. Even though *zelf* may be able to participate in operations like A-scrambling, similarly to the other adverbs, the data in (42)–(45) lead to the minimal conclusion that marking a DoC overrides such possibility (i.e. marking a DoC removes the potential ability of *zelf* to distinguish between new and old information in the sentence).

The data given until now about the interaction of the adverbial *zelf* with another IS marked expression in the sentence stand in sharp contrast to the data that follow, which concern the interaction of the adnominal *zelf* and another IS marked expression. In contrast to (42b), in which a CF adverbial *zelf* found higher than a CT expression results in infelicity, (48) illustrates that it is felicitous for a CF adnominal *zelf* to occur in a position higher than a CT. This is of course expected under the hypothesis in (38b), which treats an expression containing *zelf* in the same way as an IS marked expression without *zelf*. Since the argument containing *zelf* is in situ (thus no scope index percolation takes place), the CT can percolate its scope index higher than *Janzelf* in

order to adhere to a well-formed information structure. Note that the felicitous use of the adnominal *zelf* in (48) is made possible by the fact that the context provides (hierarchically) peripheral alternative referents to the antecedent, *Jan*.

(48)   *Context: Same as (42).*

      A: Zeg, hoe zit het met Angela? Wie van Jan's medewerkers heeft haar
         toegesproken?
      B: Nou, daar ben ik niet zeker van, maar …
      A: And what about Angela, who of John's staff has addressed her?
      B: Well, I'm not sure, but …'

      [:1 Jan[ZELF]]   [:1 heeft   [:1 *Marie*₁   [een   paar woorden   [toegedicht]]]]]

      John himself   has   Mary   a   couple words   to-spoken

      'John himself has said a couple of words to Mary.'

Once again, the use of *daarentegen* confirms the CT status of *Marie* in (48), as indicated in (49).

(49)   *Context: Same as (42).*

      A: Zeg, hoe zit het met Angela? Heeft Jan's secretaresse haar toegesproken?
      B: Ja, maar …
      A: 'And what about Angela? Did Jan's secretary speak to her?
      B: Yes, but …'

      [:1 Jan[ZELF]]   [:1 heeft   [:1 *Marie*₁   [daarentegen   [een   paar woorden

      John himself   has   Mary   by-contrast   a   couple words

      [toegedicht]]]]]]

      to-spoken

      'John himself has said a couple of words to Mary, however.'

(50) simply completes the data by swapping the IS roles of *zelf* and *Marie*. The surface order mirrors a well-formed information structure and thus a felicitous sentence.

(50)   *Context: Same as (42).*

A: Zeg, is Angela door Jan's secretaresse toegesproken?
B: Ja, maar …
A: 'By the way, has Angela been addressed by John's secretary?
B: Yes, but …'

[Jan[*zelf*]]   [heeft [daarentegen [*MARIE* [een paar woorden [toegedicht]]]]]]

John himself   has   by contrast   Mary   a   couple words   to-spoken

'John himself, however, has said a couple of words to Mary.'

If an argument hosting a contrastive adnominal *zelf* behaves like any other contrastive argument, then we expect such an expression to be able to percolate its scope index freely. We can test for this by adjoining *zelf* to an object DP, which is marked as a CT and found lower than a CF. This state of affairs will force the intensified expression to percolate an index above the CF. In (51), the context forces a CT interpretation on the intensified expression because speaker A asks about information about a salient peripheral alternative referent (i.e. Mary's secretary), but instead information is given about *Mary herself*. *Jan* may be interpreted as a CF. Despite the fact that the CF c-commands the CT, the sentence remains felicitous. This can only be explained if the CT argument containing *zelf* can percolate an index higher than the CF in order to take scope over it and satisfy (39). Notice that, here too, the CT status of *Mary herself* is confirmed by the fact that it is followed by *daarentegen*.

(51)   *Context: There is a meeting in our office building, which has cardex access doors. Marie and her secretary are attending the meeting. They arrived at different times. We are wondering who let Marie and her secretary into the building.*

A: Zeg, heeft Frank Marie's secretaresse binnen gelaten?
B: Ja, maar …
A: 'Did Frank admit Mary's secretary?
B: Yes, but …'

[:1 *JAN*   [:1 heeft [:1 Marie[*zelf*]]₁ [daarentegen [binnen [gelaten]]]]]]]

John   has   Mary herself   by contrast   inside   let

'John has let Mary herself inside.'

The pattern shown in (51) is corroborated by the negative quantifier test. It is well accepted by now that a negative quantifier can be a focus but not a topic, because topics are defined in terms of aboutness and one cannot say something about nothing, hence the felicitous replacement of *John* with *nobody*.

(52)   *Context: Same as (51).*

A: Heeft Frank Marie's secretaresse binnen gelaten?
B: Ja, maar …
A: 'Did Frank admit Mary's secretary?
B: Yes, but …'

[:1 NIEMAND   [:1 heeft [:1 Marie[*zelf*]]₁ [daarentegen [binnen [gelaten]]]]]]

Nobody   has   Mary herself   by contrast   inside   let

(ze staat nog steeds voor de deur).
'Nobody has let Mary herself inside (she is still waiting in front of the door)'

To conclude this section, we have seen that the hypotheses in (38) makes the correct predictions about the possible interactions of the adverbial and adnominal *zelf* with other IS marked elements in the sentence. If contrastive and quantificational scope are part of the same system, as advocated by Neeleman & van de Koot (2012a), (38) should be verifiable against quantificational (in the traditional sense) categories as well. This will be the pursuit of the next section.

6.5. Scope interactions between intensifiers and quantificational arguments

The example in (53) may have the following two interpretations:

a) There is an event in which two students had to read each article.

b) Each article had to be read by two students, possibly different for each article.

(53)   [Twee   [studenten]]   [moesten   [ieder   [artikel]]   [lezen]]]]
         Two   students   had-to   every   article   read
         'Two students had to read every article.'

The *two students* is a quantified argumental expression c-commanding the universal quantified expression *every article*. The interpretation in (a) corresponds to the structurally higher expression taking scope over the lower one; hence no divergence

occurs from surface c-command. This is in contrast to the interpretation in (b), in which the universal takes scope over *two*. In this case, the Logical Form (LF) of (53) comprises an inverted scopal relation, compared to the surface structure, between the two quantified expressions. As a shorthand, the former interpretation can be represented as $2 > \forall$ and the latter as $\forall > 2$. In Neeleman & van de Koot's (2012a) terms, the two interpretations of (53) are accounted for as follows:

(54) a. [Twee   [studenten]]   [moesten   [ieder   [artikel]]   [lezen]]]]
     Two   students   had-to   every   article   read
     'Two students had to read every article.'
     $2 > \forall$

     b. [:1 Twee   [studenten]]   [:1 moesten   [:1 ieder   [artikel]]$_1$ [lezen]]]]
     Two   students   had-to   every   article   read
     'Two students had to read every article.'
     $\forall > 2$

In (54a) the establishing of the scopal relation between the two expressions is taken care of by the default scope rule. In (54b) the scopal relation is established by the scope index percolation (numbered with 1) of the universal quantifier up to the top node of the structure.

     Interestingly, the inverse scopal relation of the two quantified arguments in (53) ceases to exist when a quantificational adjunct (e.g. three times) intervenes between them.

(55) [Twee [studenten]] [moesten [drie   [keer]] [ieder   [artikel]]   [lezen]]]]]
     Two   students   had-to   three   times   every   article   read
     'Two students had to read every article three times.'
     $2 > 3 > \forall$; $*\forall > 2 > 3$

(55) can take an interpretation corresponding to surface structure scope, namely that there is an event in which two students had to do three readings of each article. It *cannot* have an inverse scope interpretation, namely that each article had to be read by two students, possibly different for each article, three times.

The minimal conclusion that can be drawn from a comparison of (53) and (55) is that the intervention of a frequency quantificational adjunct between two quantificational arguments disrupts a possible inverse scope relation between the two arguments. This is reminiscent of the adverbial version of *zelf,* which did not allow for an IS marked expression found in its c-command domain to take scope over it. Indeed, our previous assumption for contrastive adverbial *zelf* (see (37a)) can also account for the state of affairs in (55). In particular, we may simply say that, being an adjunct of quantificational status, *three times* must percolate a scope index one step up to the node that immediately dominates it. As already discussed, this follows from the rule in (13c). We can now account for the impossibility of having a scope inversion interpretation in (55). An LF representation of such interpretation is as follows.

(56) *[:1 Twee [studenten]]   [:1 moesten   [:1,:2 drie   [keer]]$_2$ [:1 ieder
     Two   students   had-to   three   times   every
    [artikel]]$_1$ [lezen]]]]]
    article   read
    'Two students had to read every article three times.'

In (56), the node immediately dominating the adjunct inherits two scope indices. This is a violation of the CSS, hence the impossibility of such inverse scope reading. The flexible word order of Dutch allows for the intervening adjunct in (55) to be placed in a non-intervening (between the two quantificational arguments) position. This makes the strong prediction that in this case the scope inverse reading should be restored. In (57) *three times* is lower than both quantified arguments. What this means is that the scope index of the adjunct (numbered with *2*) will not intervene with the scope index percolation of the universal quantifier (numbered with 1), hence no violation of the CSS will occur. Indeed, an interpretation along the following lines is now possible: each article had to be read by two students, possibly different for each article, three times.

(57) [:1 Twee   [studenten]]   [:1 moesten   [:1 ieder   [artikel]]₁   [:2 drie
      Two   *students*   *had-to*   *every*   *article*   *three*

      [keer]]₂   [lezen]]]]]]
      times   *read*

      'Two students had to read every article three times.'

      ∀ > 2 > 3

Notice however that the rationale here attributes the blocking of inverse scope of the two arguments in (55) to the quantificational status of the adjunct. Could the data be explained by just making reference to the adjunct status of an intervening expression? The possibility of inverse scope in (58) suggests a negative answer. Even though *gisteren*, 'yesterday', intervenes between the two quantifiers, both scope readings are available.

(58) [Twee [studenten]]   [moesten [gisteren   [ieder   [artikel]] [lezen]]]]]
      Two   students   *had-to   yesterday   every   article   read*

      'Yesterday, two students had to read every article.'

      2 > ∀; ∀ > 2

Following this short discussion and keeping in mind the different ways of *zelf*'s scope-taking (see (38)) we now make the following predictions.

(59) a. The adverbial version of contrastive *zelf* will block inverse scope when it intervenes between two quantifiers.
      b. The adnominal version of contrastive *zelf* will <u>not</u> block inverse scope when it intervenes between two quantifiers.

(59) follows from the basic assumption that quantificational and contrastive scope are essentially the same type of scope; we thus expect the adverbial *zelf* to behave in the same way that the quantificational adjunct *three times* in (55) does. The example below confirms this expectation.

(60)   *Context: Every Greek island has its own phone exchange. For this reason, OTE has stationed an engineer on every island. In addition, they have a crack team of expert trouble shooters back in Athens. A member of this team is flown out to an island if the local engineer does not manage to deal with some problem. One very hot day in August, every phone exchange develops a fault. Each local engineer is reporting a different problem and is struggling to fix the issue. Consequently, preparations are made to send out members of the crack team to the various islands.*

Maar uiteindelijk ...
'However, in the end ...'

a. [Een engineer [kon   [ieder probleem [uiteindelijk [*ZELF*   [op lossen]]]]]]

    An engineer   could every problem   finally   self   on solve

    'An engineer could finally solve every problem himself.'

    ∃ > ∀; ∀ > ∃

b. [Een engineer [kon   [uiteindelijk [*ZELF*   [ieder problem   [op lossen]]]]]]

    An engineer   could finally   himself every problem   on solve

    'An engineer could finally solve every problem himself.'

    ∃ > ∀; *∀ > ∃

(60a) intends to show that, apart from surface scope, an inverse scope interpretation between the two quantified arguments is also possible. That is, each problem was solved by a different engineer himself (i.e. the local engineer of each island). Note that the context facilitates such interpretation and disfavors a surface scope interpretation of the sort 'a single engineer solved every island's problem (e.g. by flying from one island to the next)'. Nevertheless, such an interpretation *is* possible under a different context. What matters here is that an interpretation in which the universal scopes over the existential is not available in (60b). Considering that (60a) and (60b) only differ with respect to the positioning of the adverbial CF *zelf*,[96] I take this as further evidence in favor of the view that this instance of the intensifier percolates an index up to the node

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[96] This is not exactly true. The second adjunct of the sentence *finally* also appears between the two quantified arguments in (60b), but not in (60a). Given the context in (60), uiteindelijk, *finally*, is not a quantificational adjunct, so it cannot be held responsible for the blocking of inverse scope in (60b). To be on the safe side however, the example below is provided, in which uiteindelijk does intervene between the two quantifiers but nevertheless there *can* be inverse scope.

a. [Een engineer   [kon   [uiteindelijk   [ieder problem   [op lossen]]]]]
    An engineer   could   finally   every problem   on solve
    An engineer could finally solve every problem.
    ∃ > ∀; ∀ > ∃

immediately dominating it, similarly to other quantificational adjuncts. This being the case, when *zelf* intervenes between the two quantified arguments in (60b), it blocks the universal's scopal index from percolating higher than the existential one. This is illustrated in the ill-formed (because of a CSS violation) LF structure below.

(61) * [:1 Een engineer   [:1 kon   [:1 uiteindelijk [:1,:2 *ZELF*$_2$ [:1 ieder problem$_1$
      An engineer   could   finally   himself   every problem
      [op lossen]]]]]]
      on solve
      'An engineer could finally solve every problem himself.'
      $\forall > \exists$

For completeness sake I provide the inverse scope LF structure of (60a) below, in which the universal percolates its scopal index higher than the existential. No violation of the CSS occurs, hence the availability of such reading.

(62) [:1 Een engineer   [:1 kon   [:1 ieder problem$_1$ [uiteindelijk   [:2 *ZELF*$_2$
      An engineer   could   every problem   finally   himself
      [op lossen]]]]]]
      on solve
      'An engineer could finally solve every problem himself.'
      $\forall > \exists$

The data in (60) stand in sharp contrast to the data below, in which an adnominal CF *zelf* intervenes between two quantified arguments.

(63) *Context: Mary and her employees are visiting an all-girls school. They are being led through all the classrooms. In every classroom, every member of her team is greeted by a pupil.*

But I believe...

[dat	[tenminste	twee	meisjes	[Marie[*ZELF*]]	[in	iedere	klas
that	*at least*	*two*	*girls*	*Mary herself*	*in*	*every*	*classroom*

[een	hand	[hebben	[gegeven]]]]]]
a	*hand*	*have*	*given*

'... that in every classroom at least two girls have shaken hands with Mary herself.'

$2 > \forall$; $\forall > 2$

(63) shows that, despite the intensifier (and its antecedent) intervening between the two quantifiers, an inverse scope reading in which the universal scopes over *at least two girls* is possible given the context. In natural language such interpretation runs as follows; for each classroom there are two different girls shaking hands with Mary herself. This is certainly expected under the hypothesis that the adnominal intensifier establishes its scope indirectly, via the node dominating it and its antecedent. This node is argumental in (63) and in-situ. This means that scope is established by the default scope rule (c-command), thereby allowing for a possible scopal index percolation by the universal higher than *at least two girls*.

6.6. Summary

This chapter began with an outline of Neeleman & van de Koot's (2012a) unified theory contrastive and quantificational scope. Based on this theory and given certain considerations regarding the potential ways that the intensifier could establish its scope, we arrived at two main hypotheses, namely a) that an adverbial contrastive intensifier does not only take scope, but it marks a DoC by percolating a scope index to the node that immediately dominates it and, b) that an adnominal intensifier establishes its scope via the node dominating it and its antecedent. These hypotheses were verified against data consisting of a contrastive intensifier and other IS marked elements as well as other quantificational (in the usual sense) categories. This work also provides further support to Neeleman & van de Koot's view that contrastive and quantificational scope form part of the same phenomenon.

7. Conclusion

The present study focused on the interpretive and distributional properties of intensifiers in English and Dutch. On the basis of the minimal set of assumptions in (1), the above-presented theory of intensification attempts to overcome the problems presented by previous analyses.

(1) a. Intensifiers denote some version of the identity function:

        adnominal: ID ($D_e \rightarrow D_e$)

        exclusive: ID ($D_t D_e \rightarrow D_e$) – within the scope of the existential operator also
                                              binding the event variable of the main predicate

        inclusive: ID ($D_t D_e \rightarrow D_e$) – within the scope of some generic operator

    b. An intensifier *must* be IS-marked and, in principle, an intensifier can be IS-marked with any IS-category.

    c. The IS-marking of an intensifier induces some version of the family of peripherality functions PER:

        Adnominal intensifier's alternative:PER ($D_e \rightarrow D_e$)

        Exclusive intensifier's alternative: PER ($D_t D_e \rightarrow D_e$)

        Inclusive intensifier's alternative: PER ($D_t D_e \rightarrow D_e$)

    d. All intensifiers establish a syntactic dependency with a nominal antecedent by introducing the selectional requirement ID in syntax.

    e. The expression that eventually satisfies ID is marked as discourse given.

    f. The meaning of a given occurrence of an intensifier in a language is governed by the Elsewhere condition.

It was argued that these assumptions can account for a variety of properties of intensifiers.

Considering that *all* instances of the intensifier denote some version of the identity function, and the truth-conditionally trivial effect that such a semantic expression has on the overall interpretation of the sentence, we can maintain Eckardt's (2001: 382) insight

that an intensifier "is obligatorily stressed because it needs to be in focus [, or more generally IS-marked] because only in focus will it contribute to the meaning of the sentence" (via the inducing of alternatives). The same assumption can also lead to an understanding as to why the three diverse meanings that we observed are often morphologically realized as the same expression cross-linguistically.

In light of the lack of consensus regarding the exact meaning contribution of intensifiers, the discussion in chapters 3 and 4 argued in favor of König and Siemund's view of intensifiers as centralizing devices. The analysis elaborated and improved on König and Siemund's work by providing a more systematic analysis on the basis of salient scales, by making it less stipulative (e.g. the identificational type of centrality has a cognitive basis; event-internal centrality is based only on the three scales of 'responsibility', 'benefit' and 'malefit' because these are the only roles with thematic flavor that can be attributed to or shared by different entities with respect to a single event) and by showing that some of the characteristics we observe for each intensifier ultimately follow from their centralizing effect (e.g. the additive effect of the inclusive intensifier results from it imposing an event-generic central interpretation to its antecedent). The descriptive generalizations reached were that in English and Dutch the adnominal intensifier centralizes its antecedent either in an identificational manner or in terms of world knowledge, the exclusive intensifier centralizes its antecedent in an event-internal manner and the inclusive intensifier centralizes its antecedent in an event-generic manner. The assumption that the intensifier always induces some version of PER (depending on the nature of the identity function), one instance of which takes as part of its input the same referent that ID does, and the invoking of the Elsewhere condition were intended to capture these facts.

In contrast to previous works on intensification, this dissertation also focused on how IS influences the meaning and distribution of intensifiers. In terms of meaning, it was shown that the inferences we get with the use of the intensifier are partly due to the type of its IS-marking. It was also shown that depending on the intensifier, in particular the type of centrality it imposes, different IS-markings are possible. In terms of distribution, chapter 6 investigated and verified the expectation, created by its consistent IS-marking, that the otherwise free distribution of a Dutch intensifier ought to be conditioned, in a predictable manner, by general considerations related to the interaction of IS and the theory of scope. In addition, chapter 5 demonstrated that the intensifier establishes a syntactic dependency with the referent it is intuitively understood to

associate with, leading to the conclusion that its distribution is further conditioned by syntax. This dependency was captured via the assumption that an intensifier introduces the selectional requirement ID into the syntactic structure.

Overall, this work strived for a clear distinction of the different factors influencing the meaning and distribution of intensifiers. It can thus be seen as a case study of how the different components of the grammar, as well as extra-linguistic factors, come into play and interact in defining the behavior of a linguistic element.

References

Altmann, H. (1976). *Die Gradpartikel im Deutschen*. Tubingen: Niemeyer.

Baker, C. (1995). Contrast, discourse prominence, and intensification, with special reference to locally free reflexives in British English. *Language, 73*(1), 63-101.

Bergeton, U. (2004). *The independence of binding and intensification* (Unpublished Ph.D. thesis). University of Southern California, California, USA.

Browning, M. A. (1993). Adverbial reflexives. In *Proceedings of NELS 23*, (pp. 83-94).

Büring. D. (2004). Focus suppositions. *Theoretical Linguistics, 30*, 65-76.

Büring. D. (2001). Let's phrase it! – focus, word order, and prosodic phrasing in German double object constructions. In G. Müller & W. Sternefeld, (Eds.), *Competition in Syntax*, no. 49 in Studies in Generative Grammar (pp. 101–137). Berlin & New York: de Gruyter.

Carlson, G. (2005). Generics, habituals and iteratives. In *The encyclopedia of language and linguistics* (2nd ed.). Oxford: Elsevier.

Chafe, W. L. (1976). Givenness, contrastiveness, definiteness, subjects, topics and points of view. In C. N. Li (Ed.), *Subject and topic* (pp. 25-55). New York: Academic Press.

Chomsky, N. (1976). Conditions on rules of grammar. *Linguistic Analysis, 2*, 303-351.

Chomsky, N. (1981). *Lectures on government and binding.* Dordrecht: Foris.

Chomsky, N. (1982). *Some concepts and consequences of the theory of government.* Cambridge, MA: MIT Press.

Chomsky, N. (1986a). *Barriers.* Cambridge, MA: MIT Press.

Chomsky, N. (1986b). *Knowledge of language.* New York: Praeger.

Chomsky, N. (1995). *The minimalist program.* Cambridge, MA: MIT Press.

Constantinou, H. (2013). On the meaning of intensifiers. In *Proceedings of the 19th Amsterdam Colloquium* (pp. 91-98). Amsterdam: The Netherlands.

Déchaine, R., & Wiltschko, M., (2002a). Decomposing pronouns. *Linguistic Inquiry, 33*, 409-442.

Déchaine, R., & Wiltschko, M. (2002b). Deriving reflexives. In *Proceedings of the 21st West Coast Conference on Formal Linguistics* (pp. 71-84).

Diesing, M. (1992). *Indefinites*. Cambridge, MA: MIT Press.

Eckardt, R. (2001). Reanalysing selbst. *Natural Language Semantics, 9*(4), 371-412.

Edmondson, J., & Plank, F. (1978). Great expectations: an intensive self analysis.

Linguistics and Philosophy, 2, 373-413.

Engels, E. (2012). *Optimizing adverb positions*. Amsterdam: John Benjamins Publishing company.

Ernst, T. (2002). *The syntax of adjuncts*. Cambridge: Cambridge University Press.

Féry, C. (2008). Postponed auch: Where does the accent come from? In H.M. Gärtner, S. Beck & B. Stiebels (Eds.), *Puzzles for Krifka: Snippets* (pp. 40–60). Milano: LED - Edizioni Universitarie di Lettere Economia Diritto – Milano.

Fox, D. (2000). *Economy and semantic interpretation.* Cambridge, MA: MIT Press.

Frey, W. (2003). Syntactic conditions on adjunct classes. In E. Lang, C. Maienborn & C. Fabricius-Hansen (Eds.), *Modifying adjuncts* (pp. 163-209). Berlin: Walter de Gruyter.

Gast, V. (2006). *The grammar of identity. Intensifiers and reflexives in Germanic languages.* New York: Routledge.

Haegeman, L. (2006). *Thinking syntactically*. Malden, MA: Blackwell.

Haiden, M. (2012). The content of semantic roles: predicate-argument structure in language and cognition. In M. Everaert, T. Siloni, & M. Marelj (Eds.), *The theta system: Argument structure at the interface*. Oxford: Oxford University Press.

Hall, B. (1965). *Subject and Object in Modern English*. (Unpublished Ph.D. thesis). MIT, Cambridge, MA, USA.

Halliday, M. A. K. (1967). *Intonation and grammar in British English*. The Hague: Mouton.

Hamblin, C.L. (1973). Questions in Montague English. *Foundations of Language, 10*, 41-53.

Hole, D. (2002). Agentive selbst in German. In G. Katz, S. Reinhard and P. Reuter (Eds.), *Sinn und Bedeutung VI - Proceedings of the 6th Annual Meeting of the Gesellschaft für Semantik* (pp. 133–50). Osnabrück: Institute of Cognitive Science.

Hole, D. (2008). Focus on identity-the dark side of ziji. *Linguistic Review, 26*, 267-295.

Hornstein, N. (1999) Movement and control. *Linguistic Inquiry, 30*, 69-96.

Hornstein, N. (2001). *Move!: A minimalist theory of construal*. Oxford: Blackwell.

Hornstein, N. & Pietroski, P. (2010). Obligatory control and local reflexives: Copies as vehicles for de se readings. In N. Hornstein & M. Polinsky (Eds.). *Movement theory of control* (pp. 67-88). Amsterdam and Philadelphia: John Benjamins Publishing Company.

Jackendoff, R. (1972). *Semantic interpretation in Generative Grammar*. Cambridge:

Cambridge University Press.

Jacobs, J. (1983). *Fokus und Skalen. Zur Syntax und Semantik der Gradpartikel im Deutschen*. Tubingen: Niemeyer.

Kamp, H., & Reyle, U. (1993). *From Discourse to Logic*. Dordrecht: Kluwer.

Karttunen, L. (1977). Syntax and semantics of questions. *Linguistics and Philosophy, 1*, 3-44.

Kayne, R. (2002). Pronouns and their antecedents. In S. D. Epstein & T. D. Seely (Eds.), *Derivation and explanation in the minimalist program* (pp. 133-166). Oxford: Blackwell.

Kibrik, A., & Bogdanova, E. (1995). *Sam* kak operator korrektcii ožidanii adresata. *Voprosy Jazykoznanija, 3*, 28-47.

Kiparsky, P. (1973). 'Elsewhere' in phonology. In S. Anderson & P. Kiparsky (Eds.), *A Festshrift for Morris Halle*. New York: Holt, Rinehart and Winston.

Kiss, K. (1998). Identificational focus versus information focus. *Language, 74*, 245-273.

König, E. (1991). *The meaning of focus particles: A comparative perspective.* London: Routledge.

König, E. (2001). Intensifiers and reflexives. In M. Haspelmath, E. König, W. Oesterreicher, & W. Raible (Eds.), *Language Typology and Language Universals – An International Handbook of Contemporary Research* (pp. 747-760). Berlin & New York: Mouton.

König, E., & Siemund, P. (1996). Emphatische Reflexiva und Fokusstruktur. In I. Rosengren (Ed.), *Sprache und Pragmatik* (pp. 1-42). Lund: Lunds Universitet.

König, E., & Siemund, P. (1999). Intensifiers and reflexives: A typological perspective. In Z. Frajzyngier, & T. Curl (Eds.), *Reflexives. Forms and Functions* (pp. 41-74). Amsterdam: Benjamins.

König, E., & Siemund, P. & Töpper, S. (2013). Intensifiers and reflexive pronouns. In M. S. Dryer & M. Haspelmath (Eds.), *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. (Available online at http://wals.info/chapter/47, Accessed on 2014-03-19.)

Koster, J. (1987). *Domains and dynasties: Radical autonomy of syntax.* Dordrecht: Foris.

Kowalski, A. (1992). *Zur Syntax und Semantik von Gradpartikeln im Deutschen. Syntaktische Bedingungen für die Ausdehnung von Partikelskopus und – focus*

(Unpublished M.A. Thesis). University of Wuppertal, Germany.

Kratzer, A. (1996). Severing the external argument from its verb. In J. Rooryck & L. Zaring (Eds.), *Phrase Structure and the Lexicon* (pp. 109-137). Dordrecht: Kluwer.

Krifka, M. (1999). Additive particles under stress. In *Proceedings of SALT 8* (pp. 111-128). Cornell: CLC Publications.

Krifka, M. (2006). Can focus accenting be eliminated in favor of deaccenting Given constituents? In *Proceedings of the 9th Symposium on Logic and Language* (pp. 107-119). Besenyotelek, Hungary.

Krifka, M. (2007). Basic Notions of Information Structure. In C. Féry, & M. Krifka (Eds.), *Interdisciplinary Studies of Information Structure 6.* Potsdam: Universitätsverlag Potsdam.

Krifka, M., Pelletier, F. J., Carlson, G. N., ter Meulen, A., Link, G., & Chierchia, G. (1995). Genericity: An introduction. In G. N. Carlson & F. J. Pelletier (Eds.), *The generic book* (pp. 1-124). Chicago and London: University of Chicago Press.

Lambrecht, K. (1994). *Information structure and sentence form.* Cambridge: Cambridge University Press.

Langacker, R. (2009). *Investigations in Cognitive Grammar.* Berlin: Walter de Gruyter.

Lehmann, C., & Shin, Y. M. (2005). The functional domain of concomitance. A typological study of instrumental and comitative relations. In C. Lehmann (Ed.), *Typological Studies in Participation. Language Typology and Universals* (pp. 9-104). Berlin: Akademie Verlag.

Lyutikova, E. A. (1999). Reflexives and emphasis in Tsaxur. In Z. Frajzyngier, & T. Curl (Eds.), *Reflexives. Forms and Functions* (pp. 227-255). Amsterdam: Benjamins.

May, R. (1977). *The grammar of quantification* (Unpublished PhD dissertation). MIT, Cambridge, MA, USA.

Molnar, V. (2002). Contrast – from a contrastive perspective. In H. Hallelgard, S. Johansson, B. Behrens & C. Fabricius-Hansen (Eds.), *Information structure in a cross-linguistic perspective* (pp. 147-161). Amsterdam/New York: Rodopi.

Moravcsik, E. (1972). Some crosslinguistic generalizations about intensifier constructions. In *Proceedings of CLS 8* (pp. 272-277).

Moulton, K. (2013). Raising from the Dead. *Linguistic Inquiry, 44*(1), 157-167.

Neeleman, A., & Szendrői. K. (2007). Radical pro drop and the morphology of pronouns. *Linguistic Inquiry, 38*, 671-714.

Neeleman, A., Titov E., van de Koot H., & Vermeulen R. (2009). A syntactic typology

of topic, focus and contrast. In J. van Craenenbroeck (Ed.), *Alternatives to Cartography* (15-51). Berlin: Mouton de Gruyter.

Neeleman, A., & van de Koot, H. (2002). The configurational matrix. *Linguistic Inquiry, 33*, 529-574.

Neeleman, A., & van de Koot, H. (2006). Syntactic haplology. In M. Everaert & H. van Riemsdijk (Eds.). *The Blackwell Companion to Syntax,* (Vol. IV, pp.684-710). Oxford Blackwell Publishers.

Neeleman, A., & van de Koot, H. (2008). Dutch scrambling and the nature of discourse templates. *Journal of Comparative Germanic Linguistics, 11*(2), 137-189.

Neeleman, A., & van de Koot, H. (2010). A local encoding of syntactic dependencies and its consequences for the theory of movement. *Syntax, 13*(4), 331-372.

Neeleman, A., & van de Koot, H. (2012a). Towards a unified encoding of contrast and scope. In A. Neeleman & R. Vermeulen (Eds.). *The syntax of topic, focus, and contrast: An interface based approach* (pp. 39-76). Berlin/Boston: De Gruyter Mouton.

Neeleman, A., & van de Koot, H. (2012b). The linguistic expression of causation. In M. Everaert, T. Siloni, & M. Marelj (Eds.), *The Theta System: Argument Structure at the Interface*. Oxford: Oxford University Press.

Neeleman, A., & Vermeulen, R. (2012). The Syntactic Expression of Information Structure. In A. Neeleman & R. Vermeulen (Eds.), *The syntax of topic, focus, and contrast: An interface based approach*. Berlin/Boston: De Gruyter Mouton.

Plank, F. (1979). Zur Affinität von *selbst* und *auch* . In H. Weydt (Ed.), *Die Partikeln der deutschen Sprache* (pp. 269-284). Berlin: De Gruyter.

Pollard, C., & Sag, I. (1987*). Information-based syntax and semantics*. Stanford: CSLI.

Pollard, C., & Sag, I. (1994). *Head-driven phrase structure grammar*. Stanford: CSLI.

Primus, M. (1992). Selbst – variants of a scalar adverb in German. In J. Jacobs (Ed.), *Informationsstruktur und Grammatik* (pp. 54-88). Opladen: Westdeutscher Verlag.

Reinhart, T. (1981). Pragmatics and linguistics: An analysis of sentence topics. *Philosophica, 27*, 53-94.

Reinhart, T. (2000). The theta system: Syntactic realization of verbal concepts. *OTS Working Papers*. Utrecht University, Utrecht, The Netherlands.

Reinhart, T. (2002). The theta system: An overview. *Theoretical Linguistics, 28*(3), 229-290.

Reinhart, T. (2006). *Interface strategies*. Cambridge, MA: MIT Press.

Rizzi, L. (1997). The fine structure of the left periphery. In L. Haegeman (Ed.), *Elements of grammar*. Dordrecht: Kluwer.

Rooth, M. (1985). *Association with focus* (Unpublished Ph.D. thesis). University of Massachusetts at Amherst, USA.

Rooth, M. (1992). A theory of focus interpretation. *Natural Language Semantics, 1*, 75-116.

Ross, J. R. (1970). On declarative sentences. In A. J. Roderick & P. S. Rosenbaum, *Readings in English transformational grammar* (pp. 222-272). Waltham, MA: Ginn.

Sauerland, U. (2005). DP is not a scope island. *Linguistic Inquiry, 36*, 303-314.

Schwarzschild, R. (1999). GIVENness, Avoid F, and other constraints on the placement of accent. *Natural Language Semantics, 7*, 141-177.

Scott, G. J. (2002). Stacked adjectival modification and the structure of nominal phrases. In G. Cinque (Ed.), *Functional Structure in DP and IP: The cartography of syntactic structures* (vol. 1, pp. 91–120). Oxford/NewYork: Oxford University Press.

Selkirk, E. (1984). *Phonology and syntax: The relation between sound and structure.* Cambridge, MA: MIT Press.

Selkirk, E. (1996). Sentence prosody: Intonation, stress and phrasing. In J. A. Goldsmith (Ed.), *The handbook of phonological theory*. Oxford: Blackwell.

Shiraki, H. (2006). *Economy and the distribution of reflexives* (Unpublished PhD thesis). UCL, London, UK.

Siemund, P. (2000). *Intensifiers in English and German. A comparison.* New York: Routledge.

Sportiche, D. (1988). A theory of floating quantifiers and its corollaries for constituent structure. *Linguistic Inquiry, 19*, 425-449.

Stolz, T., Stroh, C., & Urdze, A. (2006). *On comitatives and related categories. A typological study with special focus on the languages of Europe.* Berlin/New York: Mouton de Gruyter.

Szendroi, K. (2010). A flexible approach to discourse-related word order variations in the DP. *Lingua, 120*, 864- 878.

Szendroi, K. (2012). Focus movement can be destressing, but it need not be. In A. Neeleman & R. Vermeulen (Eds.), *The syntax of topic, focus, and contrast: An interface based approach*. Berlin/Boston: De Gruyter Mouton.

Szendroi, K., Mulders, I., & Hooge, I. (2008). *Resolving focal ambiguity with 'only' online: evidence from response times and eye movements*. Ms. UCL, Utrecht

University.

Tomioka, S. (2009). Contrastive topics operate on speech acts. In M. Zimmermann & C. Féry (Eds.), *Information structure: Theoretical, typological, and experimental perspectives*. Oxford: Oxford University Press.

Trueswell, R. (2005). Non-restrictive adjective interpretation and association with focus. In R. Ashdowne & T. Finbow (Eds.), *Oxford Working Papers in Linguistics, Phonetics and Philology*, *9*, 133-154.

Tsai, W. T. D. (2005). *Causality, comitativity, contrastivity, and selfhood*. Paper presented at the 3rd Theoretical East Asian Languages Workshop, Harvard University, USA.

Vallduví, E. (1992). *The informational component.* New York: Garland.

Vallduví, E., & Vilkuna, M. (1998). On rheme and konstrast. *Syntax and Semantics, 29*, 79-108.

Van Hoof, H. (2003). The rise in the rise-fall contour: does it evoke a contrastive topic or a contrastive focus? *Linguistics, 41*(3), 515-563.

Vermeulen, R. (2010). *The syntax of topic, contrast and contrastive topic in Japanese and Korean*. Paper presented at the On Linguistics Interfaces II (OnLI II) conference at the University of Ulster, Ireland.

Von Stechow, A. (1990). Focusing and backgrounding operators. In W. Abraham (Ed.), *Discourse Particles* (pp. 37–84)*.* Amsterdam: John Benjamins.

Wagner, M. (2012). Focus and givenness: a unified approach. In I. Kucerova & A. Neeleman (Eds), *Contrasts and Positions in Information Structure* (pp. 102-147). Cambridge: Cambridge University Press.

Williams, E. (1994). *Thematic structure in syntax*. Cambridge, MA: MIT Press.

Williams, E. (1997). Blocking and anaphora. *Linguistic Inquiry, 28*, 577-628.

Williams, E. (2012). The locality of focusing and the coherence of anaphors. In I. Kucerova & A. Neeleman (Eds.), *Contrasts and positions in information structure* (pp. 148-176). Cambridge: Cambridge University Press.

Zribi-Hertz, A. (1989). Anaphor binding and narrative point of view: English reflexive pronouns in sentence and discourse. *Language, 56*, 695-727.