

A Choice Function Analysis of the English *Either...or...* Construction*

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The main concern of this paper is the availability of the wide scope or reading in the English either...or... construction and its interaction with the behavior of either. It is first pointed out that, even though there are several analyses of the either...or... construction on the market (the movement analysis (Larson (1985)), the focus alternative semantics analysis (Beck & Kim (2006)), and the ellipsis analysis (Schwarz (1999))), there is a data set that is not covered by previous analyses. I propose that a hybrid analysis of the ellipsis analysis and the choice function analysis of either, which extends the choice function analysis of disjunction (Winter (2001), Schlenker (2006)), straightforwardly explains this data set.

Keywords: either...or... construction, disjunction, choice function, ellipsis

1. Introduction

This paper focuses on the English *either...or...* construction, in which *either* can be overt or covert as presented in Larson (1985):

- (1) a. Mary is looking for a maid or a cook.
- b. Mary is looking for either a maid or a cook. (Larson (1985: 218))

The main concern is the availability of the wide scope *or* reading and its interaction with *either*. It is first pointed out that, even though there are several analyses of the *either...or...* construction on the market (the movement analysis (Larson (1985)), the focus alternative semantics analysis (Beck & Kim (2006)), and the ellipsis analysis (Schwarz (1999))), there is a data set that previous approaches all fail to cover. I propose that extending a slightly modified version of the choice function analysis of disjunction (Winter (2001), Schlenker (2006)) to the *either...or...* construction straightforwardly explains this data set that previous analyses do not cover. The argument shows that, even though it is apparently a possible option to derive the wide scope *or* reading syntactically (by directly extending the movement analysis or the ellipsis analysis), a syntactic treatment alone faces problems and combining with it a semantic treatment like a choice function analysis is better for explaining the availability of the wide scope *or* reading.

The rest of the paper is organized as follows. In Section 2 I review the basic data set of the availability of the wide scope *or* reading and its interaction with *either*. An attempt to account for the basic data set by making use of each of the previous analyses is carried out in Section 3.1, although all attempts turn into a failure, either by making wrong predictions or simply by lacking the needed machinery. The main proposal is given in Section 3.2, where the choice function analysis of disjunction is introduced and extended to the *either...or...* construction. It is shown that a modified version of the choice function analysis, combined with the ellipsis analysis, explains the data set that is not covered by previous analyses.

2. The Basic Data Set

2.1. The Wide Scope or Reading

As noted in Partee & Rooth (1983) as a problematic case and discussed in Rooth & Partee (1982) in

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more detail, when disjunction is combined with some kind of elements the sentence is (at least) three-ways ambiguous:

- (2) The department is looking for a phonologist or a phonetician. (Partee & Rooth (1983: 374))
- A. $\llbracket \text{look for} \rrbracket (\llbracket \text{a phonologist or a phonetician} \rrbracket) (d)$ (narrow scope *or de dicto* reading)
- B. $\exists x, \llbracket \text{a phonologist or a phonetician} \rrbracket (x), \llbracket \text{look for} \rrbracket (x) (d)$ (*de re* reading)
- C. $\llbracket \text{look for} \rrbracket (\llbracket \text{a phonologist} \rrbracket) (d) \vee \llbracket \text{look for} \rrbracket (\llbracket \text{a phonetician} \rrbracket) (d)$ (wide scope *or de dicto* reading)

There is a *de re* reading in (2B), where there is a specific person x , who is a phonologist or a phonetician, and the department is looking for him. The narrow scope *or de dicto* reading is in (2A), where the department would be satisfied by finding either a phonologist or a phonetician. The “problematic” *de dicto* reading, which I am interested in, is described in (2C). In this reading, the department already has in mind which of the two specialists they are going to look for (although they do not yet have a specific candidate in mind), but the speaker forgot which it was. The reading becomes clearer when you add a continuation to the sentence, “... but I don’t know which.” Thus the overall meaning is as if the disjunction is connecting two propositions, taking widest scope, even though the indefinite in the disjunct takes narrow scope. It is called the “wide scope *or*” reading in Rooth & Partee (1982).

Let me first review the discussion on the wide scope *or* reading in Rooth & Partee (1982). As a first attempt, they give a possible solution for deriving the reading by first type-shifting the objects to a higher type (from $\langle et \rangle$ to $\langle s, \langle et, t \rangle \rangle$) and then combining the higher-type objects (which became a possible object of the intensional verb as a result of type-shifting) with Generalized Disjunction:

- (3) Type-shifting rule (Rooth & Partee (1982: 356))
 If α has a translation α' then α has a second translation $\alpha'' = \lambda\Phi[\llbracket \sim\Phi \rrbracket (\hat{\alpha}')]]$, where Φ is a variable of type $\langle s, \langle type(\alpha'), t \rangle \rangle$
- (4) a. $\lambda\Phi[\llbracket \sim\Phi \rrbracket (\hat{\alpha} \text{ phonologist}')] \sqcup \lambda\Phi[\llbracket \sim\Phi \rrbracket (\hat{\alpha} \text{ phonetician}')]$
 $= \lambda\Phi[\llbracket \sim\Phi \rrbracket (\hat{\alpha} \text{ phonologist}') \vee \llbracket \sim\Phi \rrbracket (\hat{\alpha} \text{ phonetician}')]$
- b. $\llbracket \text{look for} \rrbracket (\emptyset) (d)$
- c. $\lambda\Phi[\llbracket \sim\Phi \rrbracket (\hat{\alpha} \text{ phonologist}') \vee \llbracket \sim\Phi \rrbracket (\hat{\alpha} \text{ phonetician}')] (\lambda \emptyset \llbracket \text{look for} \rrbracket (\emptyset) (d))$
 $= \llbracket \text{look for} \rrbracket (\hat{\alpha} \text{ phonologist}') (d) \vee \llbracket \text{look for} \rrbracket (\hat{\alpha} \text{ phonetician}') (d)$

Rooth & Partee (1982) note two problematic facts for this account of the wide scope *or* reading. First, the prediction that it yields, namely that conjunction should behave in the same way as disjunction, is not borne out. According to them, there is no “wide scope *and*” reading of (5) equivalent to the wide scope *or* reading in (2C).¹

- (5) Bill hopes that someone will hire a maid and a cook. (Rooth & Partee (1982: 357))
 \neq Bill hopes that someone will hire a maid and Bill hopes that someone will hire a cook.

Second, wide scope *or* reading interacts with the “donkey anaphora,” in the same way as indefinites do in (6a).

- (6) a. If Pedro owns a donkey, he beats it.
 b. If John lost a watch or a compass, Mary found it. (Rooth & Partee (1982:359))

Thus even though the analysis in (4) predicts a scope interaction between *or* and other scope-bearing elements and it turns out that this is the case as in (7), the data in (6) suggest that *or* itself does not have quantificational force.

¹ However, Winter (2000) (and a native speaker I have consulted too) observes that “wide scope *and*” is possible as in (i), and argues for a unified semantic treatment for both wide scope *and* and wide scope *or*. See Section 3.2 for his proposal for wide scope *or*.

- (i) Every man and woman arrived. (Winter (2000: 390))
- a. Does mean: “Every man and every woman arrived.” (WS)
- b. Does not mean: “Every individual that is both a man and a woman arrived.” (NS)

- (7) John believes that Bill said that Mary was drinking or playing video games.
- John believes that [Bill said that Mary was drinking] or [Bill said that Mary was playing video games].
 - [John believes that Bill said that Mary was drinking] or [John believes that Bill said that Mary was playing video games].

Rooth & Partee (1982) suggest that the DRT analysis of indefinites can be extended to wide scope *or*. According to the DRT analysis, disjunction would introduce a variable (of a higher type in (8)) with no quantificational force. This variable is bound via existential closure. The scope of *or* is determined by the position where the restriction of the variable is attached.

- (8) $\exists \{ \wp_2 \} [\text{look-for}' (m, \wp_2) \wedge [\wp_2 = \text{'a-maid}' \vee \wp_2 = \text{'a-cook}']], \emptyset$ (Rooth & Partee (1982: 362))

Note that the DRT analysis that Rooth & Partee (1982) suggest naturally extends to the choice function analysis which will be proposed later on and that the data observed in their paper are equally accounted for with the choice function analysis too, while the task is not so easy with the other analyses.

In the next subsection, the basic paradigm of the availability of the wide scope *or* reading and its interaction with *either* is introduced.

2.2. The Problem of Either: the Basic Paradigm

Larson (1985) observes that the possible readings of a sentence change when *either* comes into the structure. He states a generalization:

- (9) Larson's (1985) generalization (Winter (2000: 395)):
- In *or* coordinations without *either*, as well as in *either...or...* coordinations with *either* undisplaced, the scope of *or* is confined to those positions where *either* can potentially appear.
 - When *either* is displaced it specifies the scope of *or* to be at that displaced position.

Thus, while when *either* is adjacent to the Disjunction Phrase all three readings are available (10), when *either* floats to a higher position the narrow scope *or de dicto* reading disappears (11).²

² We need a series of data to show that the generalization (9) is descriptively adequate. Larson (1985) has tried to give it, but judgments seem to be much less clear than (10) and (11). I thus concentrate on the basic paradigm, only listing the environments that Larson (1985) has reported that the presence of *either* gives rise to disambiguation, and leave for future research what exactly interacts with *either* and changes possible readings (but see Section 3.2.2).

A. Finite clauses

- (i) John believes that Bill said that Mary was either drinking or playing video games. (Larson (1985: 222))
- *John believes that [Bill said that Mary was drinking] or [Bill said that Mary is playing video games].
 - *[John believes that Bill said that Mary was drinking] or [John believes that Bill said that Mary was playing video games].
- (ii) a. John believes that Bill said that either Mary was drinking or playing video games.
 b. ??John believes that Bill said either that Mary was drinking or playing video games.
 c. ??John believes that either Bill said that Mary was drinking or playing video games.
 d. *Either John believes that Bill said that Mary was drinking or playing video games.

(Larson (1985: 222-223))

B. Non-finite clauses

- (iii) a. Sherlock pretended [to be looking for a burglar or a thief].
 b. Sherlock pretended [to be looking for either a burglar or a thief].
 A. S. pretend to look for ((a burglar) or (a thief))
 B. S. pretend [S. look for (a burglar) or S. look for (a thief)]
 C. S. pretend to look for (a burglar) or S. pretend to look for (a thief).
- (iv) a. Sherlock pretended [to either be looking for a burglar or a thief]. (only the reading in B)
 b. Sherlock either pretended [to be looking for a burglar or a thief]. (only the reading in C)

(Larson (1985: 221))

C. Sentences with negation

- (v) Mary isn't looking for a maid or a cook. (Larson (1985: 223))
 ≠ Mary isn't looking for a maid or Mary isn't looking for a cook. (no WS reading)
- (vi) a. Mary isn't looking for either a maid or a cook.

- (10) a. Mary is looking for a maid or a cook.
 b. Mary is looking for either a maid or a cook.
 A. $\llbracket \text{look for} \rrbracket (\llbracket \text{a maid or a cook} \rrbracket) (m)$ (narrow scope *or de dicto* reading)
 B. $\exists x, \llbracket \text{a maid or a cook} \rrbracket (x), \llbracket \text{look for} \rrbracket (x) (m)$ (*de re* reading)
 C. $\llbracket \text{look for} \rrbracket (\llbracket \text{a maid} \rrbracket) (m) \vee \llbracket \text{look for} \rrbracket (\llbracket \text{a cook} \rrbracket) (m)$ (wide scope *or de dicto* reading)
- (11) a. Mary is either looking for a maid or a cook.
 b. Mary either is looking for a maid or a cook.
 c. Either Mary is looking for a maid or a cook.
 A.?* $\llbracket \text{look for} \rrbracket (\llbracket \text{a maid or a cook} \rrbracket) (m)$ (narrow scope *or de dicto* reading)
 B.? $\exists x, \llbracket \text{a maid or a cook} \rrbracket (x), \llbracket \text{look for} \rrbracket (x) (m)$ (*de re* reading)
 C. $\llbracket \text{look for} \rrbracket (\llbracket \text{a maid} \rrbracket) (m) \vee \llbracket \text{look for} \rrbracket (\llbracket \text{a cook} \rrbracket) (m)$ (wide scope *or de dicto* reading)

Winter (2000) and Schlenker (2006) report data which would be an exception to Larson's (1985) generalization (9), where disjunction can take wide scope over an island as in (12) and (15) but *either* cannot appear out of the island as in (14) and (17).³ Note that *either* can appear inside the island and disjunction can take either the narrow or wide scope (according to my informant) as shown in (13) and (16).

- (12) If Bill praises Mary or Sue then John will be happy. (Winter (2000: 403))
 A. If Bill praises Mary then John will be happy and if Bill praises Sue then John will be happy. (NS)
 B. If Bill praises Mary then John will be happy or if Bill praises Sue then John will be happy. (WS)
- (13) a. If Bill praises either Mary or Sue then John will be happy. (^{OK}NS / ^{OK}WS)
 b. If Bill either praises Mary or Sue then John will be happy. (^{OK}NS / ^{OK}WS)
- (14) * Either if Bill praises Mary or Sue then John will be happy. (Winter (2000: 403))
- (15) Students taking the exam have a choice of two options: Greek or Latin (Schlenker (2006: 306))
 a. Not a single student who picked some/a certain option (I don't remember which) passed the exam. (baseline; island-escaping indefinites)
 b. # Not a single student who picked at least one option (I don't remember which) passed the exam. (baseline; non-island-escaping indefinites)
 c. Not a single student who picked Greek or Latin (I don't remember which) passed the exam.
- (16) a. Not a single student who picked either Greek or Latin (I don't remember which) passed the exam.
 b. ?Not a single student who either picked Greek or Latin (I don't remember which) passed the exam.
- (17) * Either not a single student who picked Greek or Latin passed the exam. (Schlenker (2006: 306))

The fact that sentences with *either* inside an island do have wide scope *or* readings ((13a), (16a)) conforms to the generalization (9a), since sentences with *either* in its base position can have the scope of *or* higher than the surface position of *either*. In contrast, (13b) and (16b) go against the generalization (9b), since floated *either* does not mark the exact scope of *or* but allows the scope of *or* to be in a higher position.

In this section we have seen Larson's (1985) generalization (9), in which it is stated that (i) in sentences with no *either* or with *either* in its base position, *or* can take both the narrow scope and the wide scope, while (ii) in sentences with floated *either*, only the wide scope *or* reading is available. We have also seen data reported by Winter (2000) and Schlenker (2006), in which *or* can take scope over an island but *either* cannot overtly appear outside the island. In the next section, I will take up analyses proposed for the *either...or...* construction and examine whether any of them can explain the basic paradigm of the wide scope *or* reading given in this section. We will see that a hybrid analysis, which combines the ellipsis analysis and a version of

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- b. ?Mary isn't either looking for a maid or a cook.
 c. ??Mary either isn't looking for a maid or a cook.
 d. ??Either Mary isn't looking for a maid or a cook. (Larson (1985: 224))

³ Larson (1985: 245) reports that the scope of *or* actually is sensitive to CNP islands and *Wh* islands when *either* is not present as in (i) and (ii) (according to his claim, movement of the null operator in the position of *either* is sensitive to islands). Thus there seems to be a discrepancy in judgment.

- (i) John maintains the claim that Bill should resign or retire.
 A. John maintains [SHOULD (resign (b)) \vee SHOULD (retire (b))]
 B. *John maintains [SHOULD (resign (b))] \vee John maintains [SHOULD (retire (b))]
- (ii) John knows who should resign or retire.
 A. John knows *p*, where *p* is true & $\exists x [p = \text{SHOULD (resign (x))} \vee \text{SHOULD (retire (x))}]$
 B. ?? [John knows *p*] \vee [John knows *q*],
 where *p* is true & $\exists x [p = \text{SHOULD (resign (x))}]$, and where *q* is true & $\exists x [q = \text{SHOULD (retire (x))}]$

a choice function analysis that slightly modifies a choice function analysis for disjunction suggested in previous studies, explains the data in this section neatly. Importantly, all of the other analyses, namely the movement analysis, the focus analysis and the ellipsis analysis, face problems even to explain the most basic data set. Thus from the view of explaining the wide scope *or* reading of the *either...or...* construction, the proposed analysis represents a concrete improvement in empirical coverage.

3. Comparing Possible Analyses

In this section, I first show in Section 3.1. that even though the movement analysis, the focus analysis and the ellipsis analysis are able to explain the basic data set to some extent (especially when *either* floats), the empirical coverage of the analyses is not enough: they cannot explain the data with no *either* or *either* in its base position. This is precisely what the choice function analysis readily explains, as we will see in Section 3.2. It seems that the most plausible analysis is to derive the wide scope *or* reading by the choice function analysis of *either*, and at the same time, *or* has to connect disjuncts of the same semantic type, thus requiring ellipsis when the surface form involves unbalanced disjunction. Thus the overall analysis is a hybrid analysis of the choice function analysis and the ellipsis analysis.

3.1. Possible Analyses and Their Problems

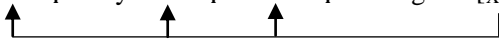
3.1.1. The Movement Analysis

Let us first look at the movement analysis. Building on the generalization in (9) repeated below, Larson (1985) proposes a movement analysis of *either* in (18).

(9) Larson's (1985) generalization (Winter (2000: 395)):

- a. In *or* coordinations without *either*, as well as in *either...or...* coordinations with *either* undisplaced, the scope of *or* is confined to those positions where *either* can potentially appear.
- b. When *either* is displaced it specifies the scope of *or* to be at that displaced position.

(18) **Either_i** Mary **either_i** is **either_i** looking for [_{XP} **t_i** or [a maid] [a cook]].



Either, originally in a position adjacent to *or*, overtly moves and marks “the point in the syntactic structure where binding of the free variable introduced by a disjunction must occur” (Larson (1985: 253)). Larson (1985) adopts the DRT analysis of disjunction that Rooth & Partee (1982) have suggested and claims that *either* marks the position where the variable introduced by the disjunction is bound.

There seem to be three problems that the movement analysis has to overcome. First, how can we motivate covert movement of *either* when it is in its base position? Second, how can we explain the availability of the wide scope *or* reading when the DisjP is in an island? Recall that a wide scope reading of the disjunction is possible even when it is in an island:

- (19) If Bill praises Mary or Sue then John will be happy. (Winter (2000: 403))
- a. If Bill praises Mary then John will be happy and if Bill praises Sue then John will be happy. (NS)
 - b. If Bill praises Mary then John will be happy or if Bill praises Sue then John will be happy. (WS)

Although Larson (1985) himself reports that such a reading is not possible (cf. note 2), to the extent that the wide scope *or* reading is available for (19) as Winter (2000) and Schlenker (2006) observe, it remains problematic for the movement approach that the scope of *or* can go beyond an island. Strictly speaking, the data do not go against the movement approach of *either*, since *either* cannot appear in a position out of the island as in (20) (but see Section 3.2.2). However, (19), which shows that *or* can take scope outside of an island, constitutes a piece of evidence against the claim that the wide scope *or* reading is derived via syntactic movement of some item.

- (20) * Either if Bill praises Mary or Sue then John will be happy. (Winter (2000: 403))

The third problem for the analysis which posits *either*-movement is the directionality in the imbalance between the two disjuncts. As shown in (21a), balanced disjunction has no problem syntactically or

semantically, except that the repeated material sounds redundant. Now, when we have unbalanced disjunction, there is no problem in the second disjunct being smaller than the first one as was the case in the sentences brought above as “floating *either*” examples (21b). However, the first disjunct being smaller than the second one is not always acceptable, as shown in (21c).⁴

- (21) a. *either* [X_τ or Y_τ] (where τ is any semantic type)
 Mary is looking for either a maid or a cook.
 Mary is either looking for a maid or looking for a cook.
Either Mary is looking for a maid or Mary is looking for a cook.
- b. *either* [X_t or Y_τ] (where τ is any semantic type)
 Mary is either looking for a maid or a cook.
 Mary either is looking for a maid or a cook.
Either Mary is looking for a maid or a cook.
- c.(*) *either* [X_τ or Y_t] (where $\tau \neq t$) (cf. R-*either* in Den Dikken (2006))
 Mary either is driving to the airport or she/Mary/the poor girl is taking a cab.
 ? Mary is either taking a cab to the airport or John is driving her/Mary/the poor girl.
 * Mary is either taking a cab to the airport or John is driving there.
 * Mary is either at John’s house or his mother is there. (Larson (1985: 235-236))

If there is covert movement of *either*, as the movement analysis claims, the wide scope *or* reading should be possible for all of the sentences in (21c), but this is not the case. Thus the movement analysis of *either* would make a wrong prediction for the data in (21c).

3.1.2. The Focus Analysis

We next move on to what I call “the focus analysis”. The analysis builds on a line of research whose basic observation is that the position where *either* can appear is determined in terms of focus and whose claim is that *either* is focus-sensitive. Hendriks (2003) observes that there is similarity in the syntactic and semantic behavior between *only* and *either* and claims that *either* is a focus-sensitive operator. Den Dikken (2006) also claims that the possible positions of *either* are determined in terms of contrastive focus.⁵ In this section I introduce a possible implementation of the focus analysis, which takes seriously the parallelism between *either* and *only*. The analysis adopts the focus alternative semantics (Rooth (1992)) and gives *either* a semantic role according to the focus alternative semantics (cf. Beck & Kim (2006)). It is shown that this version of the focus analysis has a problem in how to account for the interaction between the wide scope *or* reading and the behavior of *either*.

The basic idea of focus alternative semantics is that focused items have two semantic values: an ordinary semantic value and a focus semantic value. For example, in sentence (22a), the focused item *John* has its ordinary denotation as its ordinary semantic value (22b) and a set of alternatives (of the same semantic type) as its focus semantic value (22c). The sentence that has the focused item in it also has an ordinary semantic value (22d) and a focus semantic value (22e), which is a set of propositions in which the position of the focused item varies according to the focus semantic value of the focused item. As for a Disjunction Phrase (DisjP), Beck & Kim (2006) propose that the ordinary semantic value is the union of the denotation of the disjuncts (23a) while the focus semantic value is the set of them (23b).

- (22) a. [John]_F left.
 b. [[John_F]]^p = John
 c. [[John_F]]^f = {John, Bill, Amelie, ...}
 d. [[John_F left]]^p = λw . John left in w

⁴ Larson (1985) states that in sentences where the second disjunct contains an item that is coreferential with the subject in the first disjunct, the sentences are acceptable. He claims that in the acceptable sentences the first disjunct is a VP while the second disjunct is an S/CP, thus claiming that the structure has an underlying unbalanced disjunction.

⁵ Den Dikken (2006) actually points out that the distribution of *either* does not match that of *only/even* completely, and claims that *either* is not associated with focus in the same way as *only* is.

- e. $\llbracket \text{John}_F \text{ left} \rrbracket^f = \{p: p = \lambda w. x \text{ left in } w \mid x \in D\}$
 $= \{\lambda w. \text{ John left in } w, \lambda w. \text{ Bill left in } w, \lambda w. \text{ Amelie left in } w, \dots\}$

(23) The denotation of a DisjP

- a. $\llbracket \text{it is raining or it is snowing} \rrbracket^o = \lambda w. \text{ it is raining in } w \text{ or it is snowing in } w$
 b. $\llbracket \text{it is raining or it is snowing} \rrbracket^f = \{\lambda w. \text{ it is raining in } w, \lambda w. \text{ it is snowing in } w\}$

Focus-sensitive items make use of the focus semantic value (and sometimes the ordinary semantic value too) of their sister. *Only*, a focus-sensitive item, has the semantics in (24). This means that of all the alternative propositions introduced by the focus semantic value of the sister of *only*, the only true one is the proposition denoted by the ordinary semantic value of the sister. Thus in the sample sentence (25a), the overall meaning would be equivalent to (25c).

- (24) $\llbracket \text{only } \phi \rrbracket^o = \lambda w. \text{ for all } p \text{ such that } p(w) = 1 \ \& \ p \in \llbracket \phi \rrbracket^f : p = \llbracket \phi \rrbracket^o$ (Beck & Kim (2006: 176))
 (25) a. $\llbracket \text{only John}_F \text{ left} \rrbracket^o$
 b. $= \lambda w. \text{ for all } p \text{ such that } p(w) = 1 \ \& \ p \in \{p': p' = [\lambda w. x \text{ left in } w \mid x \in D]\}: p = [\lambda w. \text{ John left in } w]$
 c. $= \lambda w. \text{ for all } x \text{ such that } x \text{ left in } w: x = \text{John}$

Now, given the idea that *either* is focus-sensitive, the most natural semantic role of *either* in terms of focus alternative semantics would be to take the focus semantic value of its sister, just like *only* does in (24). In fact, Beck & Kim (2006) give a possible denotation of *either XP* in (26), where *either* is proposed to be a focus sensitive operator that takes its sister DisjP as its argument as in (27) and gives rise to “closure” like (28) (note that this denotation is primarily aimed to capture the “epistemic” reading of *or* discussed in Zimmermann (2000) among others).

- (26) $\llbracket \text{either } XP \rrbracket^o = \text{for all } q \text{ in } \llbracket XP \rrbracket^f : \text{may } q \ \& \ \neg \exists p [\text{for all } q \text{ in } \llbracket XP \rrbracket^f : p \cap q = \{\} \ \& \ \text{may } p]$
 (27) $\llbracket \text{either it is raining or it is snowing} \rrbracket^o = \text{may } r \ \& \ \text{may } s \ \& \ \neg \exists p [p \cap r = \{\} \ \& \ p \cap s = \{\} \ \& \ \text{may } p]$
 (28) *Either it is raining or it is snowing.*
 \approx It is possible that it is raining and it is possible that it is snowing and there are no other relevant possibilities. (Beck & Kim (2006: 201))

However, it is not clear at all how this version of the focus analysis, in which *either* is a focus-sensitive item, would explain the existence of the wide scope *or* reading. This is because, since according to the denotation in (26) *either* makes use of the focus semantic value of its sister and gives back an ordinary semantic value, we have no way to get the wide scope *or* reading of (29a) (corresponding to the set {Mary is looking for a maid, Mary is looking for a cook}). When *either* is in the leftmost position as in (29d), it would be unproblematic since the focus semantic value would directly yield the wide scope *or* reading. In contrast, when *either* is in its base position or in “intermediate” positions as in (29a-c), *either* would close the alternatives in its overt position and we end up in a reading in which the alternatives only project up to the sister position of *either*. In the case of (29b,c) (the “intermediates”), the reading that results would be equivalent to the wide scope *or* reading, but (29a) would be problematic because we only predict the narrow scope reading.

- (29) a. Mary is looking for either a maid or a cook.
 b. Mary is either looking for a maid or a cook.
 c. Mary either is looking for a maid or a cook.
 d. Either Mary is looking for a maid or a cook.

Claiming that *either* projects up the focus semantic value is not a possible move, taking into consideration the following data:

- (30) a. Did John drink coffee or tea? (AltQ / YNQ)
 b. Did John drink **either** coffee or tea? (*AltQ / YNQ)

According to Beck & Kim (2006), the AltQ reading available for sentences like (30a) comes from the focus

semantic value that projects up to the TP level and is lifted to the ordinary semantic value by the work of the covert Q operator in the C position. Given that the AltQ reading is unavailable when *either* comes in, it is clear that *either* does not pass up the focus semantic value of its sister node but closes the alternatives in its position. It thus seems difficult to explain the availability of the wide scope *or* reading available for sentences with *either* adjacent to the DisjP by giving *either* some semantic role related to focus.

3.1.3. The Ellipsis Analysis

The ellipsis analysis claims that ellipsis is involved in “unbalanced disjunction” and that the overt position of *either* marks the left edge of the first disjunct as in (31), so it correctly predicts that when *either* floats only the wide scope *or* reading is available.

- (31) a. John either ate rice or beans.
 John either [_{VP} ate rice] or [_{VP} ate beans]
 b. Either John ate rice or beans
 Either [_{IP} John ate rice] or [_{IP} John ate beans] (Schwarz (1999: 351-352))

However, the ellipsis analysis is at best incomplete: it does not have much to say about the availability of the wide scope *or* reading for sentences with *either* in its base position, adjacent to the DisjP.

- (10) b. Mary is looking for either a maid or a cook.
 A. $\llbracket \text{look for} \rrbracket (\llbracket \text{a maid or a cook} \rrbracket) (d)$ (narrow scope *or de dicto* reading)
 B. $\exists x, \llbracket \text{a maid or a cook} \rrbracket (x), \llbracket \text{look for} \rrbracket (x) (d)$ (*de re* reading)
 C. $\llbracket \text{look for} \rrbracket (\llbracket \text{a maid} \rrbracket) (d) \vee \llbracket \text{look for} \rrbracket (\llbracket \text{a cook} \rrbracket) (d)$ (wide scope *or de dicto* reading)

In such “balanced disjunction” examples, there is no motivation to posit ellipsis in the derivation of the sentences, and thus in the ideal case, ellipsis would not be involved in the derivation of these sentences. Thus employing ellipsis does not solve the problem of the ambiguity of the sentence when *either* is in its base position, as was the case for the focus analysis in Section 3.1.2.

I have shown in this section that analyses proposed in previous studies as applicable to the *either...or...* construction face problems when we try to account for the data set in Section 2. Importantly, the accounts either have problems or have no way to account for the availability of the wide scope *or* reading in sentences with no *either* or *either* in its base position. It is precisely this availability of the wide scope *or* reading that the choice function analysis readily explains, as we will see in the next section.

3.2. The Choice Function Analysis

3.2.1. The Choice Function Analysis of Either

In this section, I propose a choice function analysis of the *either...or...* construction in English, which is a modified version of a choice function analysis for disjunction, suggested in Winter (2001) and Schlenker (2006). Let us first review the choice function analysis for disjunction, and then give it a refinement, namely assigning the role of introducing the choice function variable to *either*, rather than *or*. Winter (2001) suggests a (Skolem) choice function analysis for disjunction and claims that through existential closure over the choice function variable that the disjunction introduces, we obtain the wide scope *or* reading as in (32).⁶ This is basically applying the choice function analysis that he proposes for indefinites to disjunction.

⁶ The notations in capital letters *M* and *S* are the quantifiers corresponding to the proper names *Mary* and *Sue* respectively (and thus can be connected by Generalized Disjunction as in (32b)) and the notations *m'* and *s'* are the lexical denotation of *Mary* and *Sue* respectively. The definition of the operation Minimum Sort is as follows. The operator *min* takes *Q*, a set of objects of type τ (which is a boolean type) and gives back the set of minimal sets of *Q*, where a set *A* is a minimal set of *Q* iff *A* is in *Q* and every proper subset of *A* is not in *Q*. Thus *A* is set of the generator of the principal filter *Q*.

(i) $\text{min} = \lambda Q_{\tau}. \lambda A_{\tau}. Q(A) \wedge \forall B \in Q [B \subseteq A \rightarrow B = A]$ (Winter (2001: 53))

$\langle f \rangle^d$ is a distributive version of a choice function. The operator $\langle \rangle^d$ lifts a choice function with the following definition.

(ii) $\langle \rangle^d = \lambda g_{(\text{ett}(\text{et})).} \lambda A_{\text{ett}}. \lambda B_{\text{et}}. A \neq \emptyset \wedge g(A) \subseteq B$

- (32) a. If Bill praises Mary or Sue then John will be happy.
 b. $\exists f [\text{CH}(f) \wedge [\langle f \rangle^d (\min (M \sqcup S)) (\lambda x. \text{praise}'(x) (b') \rightarrow \text{happy}'(j'))]]$
 $= \exists f [\text{CH}(f) \wedge [\langle f \rangle^d (\{\{m'\}, \{s'\}\}) (\lambda x. \text{praise}'(x) (b') \rightarrow \text{happy}'(j'))]]$
 $= \exists A \in \{\{m'\}, \{s'\}\} [(\lambda P. A \subseteq P) (\lambda x. \text{praise}'(x) (b') \rightarrow \text{happy}'(j'))]$
 $= [\text{praise}'(m') (b') \rightarrow \text{happy}'(j')] \vee [\text{praise}'(s') (b') \rightarrow \text{happy}'(j')]$ (Winter (2001: 159))

Schlenker (2006) also claims for a (Skolem) choice function analysis for indefinites to explain both its “branching reading” and its island-escaping behavior. He suggests that the analysis can be extended to disjunction and that the island-escaping behavior of the wide scope *or* reading is explained in a similar manner. (Note that (33b) expresses an intermediate reading of *or*.)

- (33) a. Exactly four logicians studied every conceivable proof that the Completeness Theorem or the Incompleteness Theorem might have.
 b. $[\exists 4x: \text{logician } x] \exists F_{<0>} [\text{every } \gamma: \gamma \text{ proves } F_{<0>}(\{\text{the Completeness Theorem, the Incompleteness Theorem}\})] (x \text{ studied } \gamma)$ (Schlenker (2006: 308))

Importantly, the choice function analysis has the obvious advantage that, since Existential Closure is not confined within islands, it successfully predicts the availability of the wide scope *or* reading in sentences with no *either* or with *either* in its base position ((10), (12), (15)), even if the disjunction is inside an island. Furthermore, since Existential Closure can be applied whenever the semantic type of the node is type *t*, the choice function analysis can account for the ambiguity that the sentences have; namely having both the narrow scope reading and the wide scope reading of *or*. Thus the choice function analysis neatly explains the data set that is not covered by previous analyses.

Under the choice function analysis of disjunction, what is the role of *either*? It seems that the best choice is to adopt the claim of the ellipsis analysis that it syntactically marks the left edge of the first disjunct. Further, to ensure that *either* occurs with *or*, *either* is syntactically required to take a DisjP as its argument and *or* inside the DisjP has to take two disjuncts of the same type/size (cf. Law of coordination of likes), thus requiring the ellipsis treatment when the surface form is unbalanced. This enables us to explain the sentences with floated *either* and the overall analysis is something like a hybrid of the choice function analysis and the ellipsis analysis.

As a first approximation, below I lay out an overview of how “the choice function analysis of disjunction + the ellipsis analysis” can explain the basic data set. In sentences with no *either* or with *either* in its base position (34), where there is an ambiguity between narrow scope and wide scope *or*, no ellipsis is involved in the derivation of “balanced disjunction.” Thus there are multiple possible positions for Existential Closure and multiple possible scope positions for *or*.

- (34) **Ambiguous between NS and WS *or***
 a. Mary is looking for a maid or a cook.
 b. Mary is looking for either a maid or a cook.
 \Rightarrow **No ellipsis / Multiple possible positions of Existential Closure**
 $[\exists f] \text{ Mary is looking for } [\exists f] \text{ PRO TO FIND } f(\{\text{a maid, a cook}\})$ (cf. Larson et al. (1997))

In sentences with floated *either* (35), where the wide scope *or* reading is forced, *either* marks the left edge of the first disjunct and ellipsis is involved in the derivation. Since the choice function variable is introduced with the disjunction, Existential Closure is restricted to a position above the DisjP. Thus we can account for the fact that only the wide scope *or* reading is available in the sentences.

- (35) **Unambiguous: only WS *or***
 a. Mary is either looking for a maid or a cook.
 b. Mary either is looking for a maid or a cook.
 c. Either Mary is looking for a maid or a cook.
 \Rightarrow **Involve ellipsis / Existential Closure possible only above DisjP**
 a. Mary is either looking for a maid or ~~looking for~~ a cook.
 $\exists f. \text{ Mary is } f(\{\text{looking for a maid, looking for a cook}\})$
 b. Mary either is looking for a maid or ~~is looking for~~ a cook.
 $\exists f. \text{ Mary } f(\{\text{is looking for a maid, is looking for a cook}\})$

- c. Either Mary is looking for a maid or ~~Mary is looking for~~ a cook.
 $\exists f. f(\{\text{Mary is looking for a maid, Mary is looking for a cook}\})$

Now, recall from the discussion in Section 3.1.1 on the movement analysis of the *either...or...* construction that the movement analysis carries a problem in accounting for the fact that the second disjunct can be smaller than the first one (36b) while the first disjunct cannot be smaller than the second one (36b).

- (36) a. *either* [X_τ or Y_τ] (where τ is any semantic type)
 Mary is either looking for a maid or a cook.
 Mary either is looking for a maid or a cook.
Either Mary is looking for a maid or a cook.
- b.(*) *either* [X_τ or Y_t] (where $\tau \neq t$)
 Mary is either looking for a maid or Mary is looking for a cook.
 (cf. R-*either* in Den Dikken (2006))
- * John saw either Mary or Bill saw Sue.

The choice function analysis of disjunction + the ellipsis analysis (and in fact, any analysis that adopts the ellipsis analysis) is free of the problem, since ellipsis is sensitive to the linear order of the elements under consideration. Specifically, ellipsis is applied to the second (non-initial) element, under identity of the deleted element with the initial element. Thus when the second disjunct is smaller than the first one (36b), it is possible to assume that there is some elided material for the second disjunct, while when the first disjunct is smaller than the second one (36b), we cannot claim that the first disjunct has undergone ellipsis, since ellipsis cannot be applied to the initial element. We successfully account for the difference in the acceptability between (36a) and (36b).

However, there is a difficulty that the choice function analysis of disjunction + the ellipsis analysis faces. It arises from the mechanism to determine the position of the choice function variable, and it becomes visible when we closely inspect the permissible unbalanced disjunction example (36a). The problem is, the choice function analysis of disjunction actually does not rule out the possibility of the choice function variable being introduced at a position lower than it really is. Since, according to the choice function analysis of disjunction, the only thing that the disjunction does is to require that the two disjuncts are of the same size and to introduce a choice function variable just outside the DisjP, there is no way to determine the size of the DisjP and the position where the choice function variable is introduced just from the role of the disjunction. Thus, for example, the choice function analysis of disjunction wrongly predicts that we can place the choice function variable just above [*a maid or a cook*] in the sentences in (36a). The requirements of the disjunction are fulfilled in this situation, conjoining two disjuncts of the same size and placing the choice function variable above the DisjP. This results in the narrow scope reading of the disjunction, which the sentences do not have.

- (36) a. *either* [X_τ or Y_τ] (where τ is any semantic type)
 Mary is either looking for a maid or a cook.
 Mary either is looking for a maid or a cook.
Either Mary is looking for a maid or a cook.

The problem just pointed out arises because we have assigned the role of introducing the choice function variable to *or*, which was argued for by the choice function analysis of disjunction. This is the point where the analysis needs refinement. What, then, has the role of introducing the choice function variable? The obvious candidate is *either*, and this indeed seems to be the right choice to make. Observe that, in all of the examples we have seen in (34) and (35), the position where the choice function variable is placed actually coincides with the overt position of *either*. Thus I propose that the item that has the role of introducing the choice function variable is *either*, rather than *or*, and argue for a choice function analysis of *either*. By claiming that *either* syntactically selects a DisjP and semantically introduces a choice function variable, we carry on the advantage of the choice function analysis and at the same time avoid the trouble of wrongly predicting a narrow scope reading of *or* for the sentences in (35) (= (36a)).

- (34) Mary is looking for either a maid or a cook.
 $[\exists f] \text{ Mary is looking for } [\exists f] \text{ PRO TO FIND } f(\{\text{a maid, a cook}\})$ (cf. Larson et al. (1997))

- (35) a. Mary is either looking for a maid or ~~looking for~~ a cook.
 $\exists f. \text{Mary is } f(\{\text{looking for a maid, looking for a cook}\})$
 b. Mary either is looking for a maid or ~~is looking for~~ a cook.
 $\exists f. \text{Mary } f(\{\text{is looking for a maid, is looking for a cook}\})$
 c. Either Mary is looking for a maid or ~~Mary is looking for~~ a cook.
 $\exists f. f(\{\text{Mary is looking for a maid, Mary is looking for a cook}\})$

The semantic role of *or* is to form a set consisting of the disjuncts (cf. Alonso-Ovalle (2006)) that serves as the argument of the choice function variable. *Or* also has the syntactic requirement that the disjuncts have to be of the same size, thus demanding an ellipsis treatment when the surface form is unbalanced disjunction. In addition, even in sentences where *either* is covert, the presence of *or* indicates that a phonetically null version of *either* is present in the structure, thus ensuring that the possible readings are the same as the sentences with overt *either*.

Below I show how the narrow scope and wide scope interpretations are assigned for sentences with *either* in its base position (38) and with floated *either* (40). *Either* introduces a choice function variable as in (37).

- (37) $\llbracket \textit{either} \rrbracket = f: f \in D_{cf}$ (where f of type cf is a choice function $Chf(f)$ iff for all P in $\text{dom}(f)$: $P(f(P))$)
 (38) Mary_i is looking for $[_{TP1} \text{PRO}_i \text{ TO FIND } [_{XP} \textit{either} [_{DisjP} \text{a maid or a cook}]]]$.
 (cf. Larson et al. (1997))
 (39) a. $\llbracket XP \rrbracket = \llbracket \textit{either} \rrbracket (\llbracket \text{DisjP} \rrbracket)$
 $= f(\{\text{a maid, a cook}\})$
 b. $\llbracket TP_1 \rrbracket = \lambda w. \exists f. Chf(f) \ \& \ \text{Mary to find } f(\{\text{a maid, a cook}\}) \text{ in } w$
 c. $\llbracket (38) \rrbracket = \lambda w'. \text{Mary is looking for } [\lambda w. \exists f. Chf(f) \ \& \ \text{Mary to find } f(\{\text{a maid, a cook}\}) \text{ in } w] \text{ in } w'$
 (40) Mary_i is $[_{XP} \textit{either} [_{DisjP} \text{looking for } \text{PRO}_i \text{ TO FIND a maid}$
 $\text{or } \textit{looking for } \text{PRO TO FIND a cook}]]]$.
 (41) a. $\llbracket XP \rrbracket = \llbracket \textit{either} \rrbracket (\llbracket \text{DisjP} \rrbracket)$
 $= f(\{\lambda w'. \lambda x. x \text{ is looking for } [\lambda w. \text{Mary to find a maid in } w] \text{ in } w',$
 $\lambda w'. \lambda x. x \text{ is looking for } [\lambda w. \text{Mary to find a cook in } w] \text{ in } w'\})$
 b. $\llbracket (40) \rrbracket = \lambda w''. \exists f. Chf(f) \ \&$
 $[\text{Mary is } f(\{\lambda w'. \lambda x. x \text{ is looking for } [\lambda w. \text{Mary to find a maid in } w] \text{ in } w',$
 $\lambda w'. \lambda x. x \text{ is looking for } [\lambda w. \text{Mary to find a cook in } w] \text{ in } w'\})] \text{ in } w''$

Let me close this section by noting a potential problem for the present analysis. Under the ellipsis analysis, we need to somehow recover the elided material of the second disjunct in sentences with floated *either*/unbalanced disjunction. There are two possibilities for the mechanism of specifying the size of the elided material, both of which are based on the Law of Coordination of Likes: (i) by making use of a syntactic rule that the syntactic category of the second disjunct must be the same as the first one, and (ii) by making use of a semantic rule that the semantic type of the second disjunct must be the same as the first one. However, both mechanisms face a problem when we consider examples like (42), which has the readings in (42a,b) but not the ones in (42c,d). Notice that the unavailable readings (42c,d) do have two disjuncts of the same syntactic category (CP) and the same semantic type (type t). Thus we have no mechanism to rule out (42c,d).

- (42) John believes that Bill said that Mary was drinking or playing video games.
 a. John believes that [Bill said that Mary was drinking]
 $\text{or [Bill said that Mary was playing video games].}$
 b. [John believes that Bill said that Mary was drinking]
 $\text{or [John believes that Bill said that Mary was playing video games].}$
 c. * John believes that $[_{CP/t} \text{Bill said that Mary was drinking}]$ or $[_{CP/t} \text{Mary was playing video games}]$.
 d. * $[_{CP/t} \text{John believes that Bill said that Mary was drinking}]$
 $\text{or } [_{CP/t} \text{Bill said that Mary was playing video games}].$

This is problematic for the present analysis, which makes use of both the choice function analysis of *either* and the ellipsis analysis. However, the problem is not construction-specific but is a problem for ellipsis analysis in general. Thus I leave the problem for future research on ellipsis, merely noting that whatever

analysis for ellipsis that overcomes this problem is proposed, I will adopt it.

3.2.2. Predictions of the Analysis

This section is devoted to discussion of a prediction that the choice function analysis of *either* + the ellipsis analysis makes and of some data beyond the basic data set that we have limited ourselves to up to this point. A prediction that the present analysis makes is that *either* marks the “minimal possible scope” of *or*. The claim of the present analysis is that *either* introduces a choice function variable and the scope of the variable is determined by the position of Existential Closure. Existential Closure should thus be able to occur at any type *t* position above *either*.

First consider (12)-(14), repeated in (43)-(45) below.

- (43) If Bill praises Mary or Sue then John will be happy.
A. If Bill praises Mary then John will be happy and if Bill praises Sue then John will be happy. (NS)
B. If Bill praises Mary then John will be happy or if Bill praises Sue then John will be happy. (WS)
- (44) a. If Bill praises either Mary or Sue then John will be happy. (^{OK}NS / ^{OK}WS)
b. If Bill either praises Mary or Sue then John will be happy. (^{OK}NS / ^{OK}WS)
- (45) * Either if Bill praises Mary or Sue then John will be happy. (Winter (2000: 403))

As shown in (43) and (44), when a DisjP is inside an *if*-clause, which is an island, both the narrow scope and wide scope reading of *or* are available, and the possible readings are the same in sentences with *either* inside the *if*-clause. As I have stated above, this is straightforwardly accounted for by the proposed analysis, since Existential Closure is not restricted within islands and ellipsis that takes place inside the *if*-clause does not cause any problem. In contrast, (45) at first sight seems to go against the prediction that the choice function analysis makes. This is because, according to the analysis, there is no reason for the sentence to become unacceptable and thus the analysis predicts it to be acceptable.

It is possible to posit a restriction on ellipsis to avoid this difficulty, for example claiming that ellipsis is island-sensitive, but I would like to point out that there might be a problem in the data itself. Specifically, some native speakers that I have consulted (although the number is still small) commented that the degradedness of (45) seems to come from a syntactic reason rather than semantic. That is, they felt that *either* coming next to *if* itself is bad. Indeed, at least one native speaker who reports that (45) has a syntactic problem judged (46) as grammatical, in which *either* is overtly outside other islands, such as a Complex NP island (46a) and a *wh*-island (46b). Although the judgment has to be confirmed by a larger number of native speakers, this suggests that the overt position of *either* is not constrained by syntactic islands, and if this is the case, the data in (45) is not a problem for the present analysis.

- (46) a. John maintains either the claim that Bill should resign or retire.
b. John knows either who should resign or retire.

Another point that apparently goes against the prediction of the present analysis that *either* marks the “minimal possible scope” of *or* is the generalization that Larson (1985) observes (9b).

- (9) Larson’s (1985) generalization (Winter (2000: 395)):
a. In *or* coordinations without *either*, as well as in *either...or...* coordinations with *either* undisplaced, the scope of *or* is confined to those positions where *either* can potentially appear.
b. When *either* is displaced it specifies the scope of *or* to be at that displaced position.

Observe that the generalization (9) states an imbalance in the semantic role of *either*: on the one hand, in sentences with no *either* or *either* in its base position, *either* marks the minimal possible scope of *or* (9a), but on the other, in sentences with floated *either*, *either* marks the exact scope of *or* (9b). This imbalance between the positions of *either* would be a difficult problem for any attempt to explain the behavior of *either*. However, some native speakers I have consulted do not agree with the “exact scope marking” nature of floated *either* but judge that floated *either* also marks the minimal possible scope of *or*.

Let us see an example given in note 2. Sentences in (47) have embedded non-finite clauses. In sentences with no *either* (47a) or with *either* in its base position (47b), there are three possible readings: (A) *or* taking narrowest scope, below *look for*, (B) *or* taking scope at the embedded clause level, and (C) *or* taking widest scope at the main clause level. Larson’s (1985) judgment for (47c,d) is that the position of floated *either* coincides with the scope of *or*, as given in the second line of the table. The judgment of some native

speakers I have consulted, given in the third line of the table, differs crucially from Larson’s (1985) in the judgment of (47c). Specifically, they judge that both the (B) reading (the exact scope reading) and the widest scope reading of *or* are available. This shows that they judge that floated *either* marks not the exact scope of *or* but the minimal possible scope of *or*. Thus their judgment does not accord with (9).

- (47) Non-finite clauses (Larson (1985: 221))
- a. Sherlock pretended [to be looking for a burglar or a thief].
 - b. Sherlock pretended [to be looking for either a burglar or a thief].
 - A. S. pretend to look for ((a burglar) or (a thief))
 - B. S. pretend [S. look for (a burglar) or S. look for (a thief)]
 - C. S. pretend to look for (a burglar) or S. pretend to look for (a thief).
 - c. Sherlock pretended [to either be looking for a burglar or a thief].
 - d. Sherlock either pretended [to be looking for a burglar or a thief].

	(47a, b)	(47c)	(47d)
Larson (1985)	^{OK} A, ^{OK} B, ^{OK} C	*A, ^{OK} B, *C	*A, *B, ^{OK} C
Other native speakers	^{OK} A, ^{OK} B, ^{OK} C	*A, ^{OK} B, ^{OK} C	*A, *B, ^{OK} C

If the intuition of the native speakers I have consulted turns out to be correct, it makes it easier to account for the scope of *or* and its interaction with *either*, since we do not have to say, for example, that base-generated *either* has to move covertly to mark the scope of *or* while floated *either* overtly marks the scope of *or*, which Larson (1985) actually proposes (Section 3.1.1). What is more, the uniform “minimal possible scope marking” nature of *either*, if it is real, fits very well with the choice function analysis argued for in this paper, confirming the prediction that the analysis makes, namely that *either* should mark the minimal possible scope of *or*. Thus there might be supporting evidence to further extend the analysis to data outside the basic data set. Note that the focus alternative semantics analysis and the ellipsis analysis, as we have seen in the previous subsections, predict that *either* would mark the exact scope of *or*.

Let me lastly briefly state another prediction of the present analysis related to the one discussed in this section: *either* marks the minimal scope of *or*, and what is more, the scope of *or* must be unbound. This is because, as far as I understand, there is no way to keep Existential Closure from taking place when the semantic type of the node is type *t*. The prediction that the scope of *or* must be unbound is a falsifiable one, and I leave further investigation for future research.

4. Concluding Remarks

In this paper I have investigated the availability of the wide scope *or* reading in the *either...or...* construction and its interaction with *either*. It has been shown that a hybrid analysis, which combines a choice function analysis of *either* and an ellipsis analysis, should be introduced to explain the distribution of the wide scope *or* reading. I have also suggested some potential problems in the data given in previous studies and shown that some native speakers I have consulted have given judgments that might further support the choice function analysis proposed in this paper.

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