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## **Conditional Analysis of Clausal Exceptives<sup>1</sup>**

### **Abstract**

In this paper I argue that English exceptive constructions introduced by *except* can be derived from full clauses by ellipsis. I offer a compositional analysis for this clausal exceptive construction. I propose that an *except*-clause introduces quantification over possible situations and provides the restriction for this quantification. I show how the analysis developed here derives the inferences *except* contributes to sentences it occurs in and the restriction on its use. I also show how the approach developed here captures the cases traditional approaches to the semantics of exceptives cannot capture such as cases where an *except*-phrase contains a PP or multiple syntactic constituents. The approach I propose correctly captures the NPI licensing facts inside *except*-phrases. In addition, this is the first approach to the semantics of exceptives that correctly captures the contribution of modal phrases such as *possibly* inside *except*-phrases.

### **1. Introduction**

In this paper I discuss the syntactic and semantic properties of the English exceptive construction introduced by *except*. I argue that the complement of *except* can have a clausal structure even in cases when it appears to be phrasal. I offer novel arguments in favor of the idea that (1) can be derived from (2) by ellipsis. I propose a semantic theory of *except* that captures the meaning it contributes to a sentence and the restrictions on its use.

- (1) Every girl came except Eva.
- (2) Every girl came except Eva did not come.

My arguments in favor of the idea that this exceptive construction can be clausal are based on the observation that *except* can host syntactic elements larger than DPs such as PPs. In (3) the preposition makes a contribution to the overall meaning of the sentence (as the contrast between (3) and (4) shows).

- (3) I got no presents except from my mom.
- (4) #I got no presents except my mom.

The ellipsis story also naturally explains the cases originally observed by Moltmann (1995) where an *except*-phrase contains multiple elements like in (5).

- (5) Every boy danced with every girl except Eva with Bill.

I argue that the ellipsis site inside reduced *except*-clauses operating on positive universal statements in examples like (1) contains negation based on NPI licensing inside such clauses.

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There are exceptives introduced by other markers in English. Two representative examples are given in (6) and (7). In this paper I will not make any claims about *except for* and *but*. I will specifically focus on the exceptives introduced by *except*.

- (6) Every girl came except for Eva.
- (7) Every girl came but Eva.

English exceptives are relatively well studied and there is a significant amount of literature on this topic (Keenan & Stavi 1986; Hoeksema 1987, 1990, 1995; von Fintel 1993, 1994; Moltmann 1995; Lappin 1996; Gajewski 2008; Garcia Alvarez 2008; Hirsch 2016 among others). It has been established in the existing literature that when exceptives operate on universal quantifiers, like in (1), (6), and (7), they come with the inferences illustrated in (8), (9) and (10) (Keenan & Stavi 1986; Hoeksema 1987, 1995; von Fintel 1993, 1994).

*The Domain Subtraction:*

- (8) Every girl who is not Eva came.

*The Containment Entailment:*

- (9) Eva is a girl.

*The Negative Entailment:*

- (10) Eva did not come.

Another crucial observation about exceptives that goes back to Horn (1989) is that they are not compatible with existential quantifiers as illustrated in (11), (12), (13). Following the existing literature (Gajewski 2008; Hirsch 2016), I will refer to the puzzle of explaining this fact as the distribution puzzle.

- (11) \*Some girls came except Eva.
- (12) \*Some girls came but Eva.
- (13) \*Some girls came except for Eva.

The existing semantic theories of exceptives are based on the assumption that elements that follow exceptive markers are DPs. Those DPs are interpreted as sets (Hoeksema 1987, 1995; von Fintel 1994; Gajewski 2008) or atomic or plural individuals (Hirsch 2016) – semantic objects that can directly restrict domains of quantifiers quantifying over individuals. The classic theory of exceptives was developed in von Fintel’s work (1993, 1994) for exceptives introduced by *but*, like the one in (7). According to this proposal, in (7) *but* subtracts the singleton set containing Eva from the set of girls. This accounts for the domain subtraction inference. The negative inference and the containment inference are captured by adding a claim that if the subtraction does not happen, the quantificational claim is not true: it is not true that every girl came. If it is true that every girl who is not Eva came and it is not true that every girl came, then Eva is a girl and she did not come. This idea also gives us a way of dealing with the distribution puzzle (the fact that the example (12) is ungrammatical): existential claims unlike universal claims cannot be true for a smaller domain and false for a bigger domain. Thus, by providing an exceptive phrase with access to the domain of a quantifier the classic theory captures the inferences the exceptives come with and the restrictions on their use.

In this paper I argue that this analysis cannot be extended to exceptives introduced by *except*. If the complement of *except* in (1) contains (or at least can contain) a reduced clause, as I will argue, *except* must relate the two clauses in (14) and (15) semantically in such a way that the inferences in (8) and (9) are captured and the restriction observed in (11) is derived. A sentence denotes a proposition and it cannot be used to restrict the domain of a quantifier quantifying over individuals.

- (14) Every girl came.
- (15) Eva did not come.

One naturally occurring idea about how the clauses (14) and (15) can be related in the relevant way is that the exceptive clause is interpreted as some sort of a counterfactual conditional. The idea roughly would be that the meaning of (1) (or at least a part of the meaning of (1)) can be expressed by the counterfactual conditional in (16), where the exceptive clause is a part of the antecedent.

- (16) If (15) were false, (14) would have been true.

There are certain similarities between the meaning of the sentence with *except* in (1) and the meaning of the counterfactual conditional in (16). Intuitively, the part of the meaning they share is that the fact that Eva did not come is the thing that stands in the way of the proposition denoted by *every girl came* being true in the actual world.

However, there are important differences between (1) and (16) as well. First of all, (16) does not entail that Eva is a girl. Compare (16) with (17) where *Eva* is substituted by a male name *John*. The sentence in (17) could be true in a scenario where every girl for some reason does whatever John does or goes wherever he goes.

- (17) If *John did not come* were false, *every girl came* would have been true.

Moreover, the sentence in (18), where *every* is substituted by *some*, is coherent. Thus, the counterfactual paraphrase does not have anything to say about the distribution of exceptives and the fact that they are not acceptable with existential quantifiers.

- (18) If *Eva did not come* were false, *some girl came* would have been true.

In this paper I propose a novel analysis for clausal exceptives that is built on the idea that the meaning of the sentence with *except* in (1) involves looking at possible worlds or situations that differ from what actually happened only with respect to the facts about Eva coming. What this sentence says about those situations is that every girl came in them. In the story I propose exceptive clauses introduce quantification over possible situations and provide the restriction for this quantification. This explains the similarities in meanings between sentences with exceptives and their counterfactual paraphrases. I will call this part of the meaning Conditional Domain Subtraction because this is a part of the meaning contributed by *except* that is responsible for the domain subtraction inference. The negative inference is contributed directly by the clause inside an exceptive.

I propose that there is also another aspect of the meaning of exceptives that I call Conditional Leastness. This is a claim that establishes the law-like relation between the main clause containing a quantificational expression and the clause introduced by *except*. In our example, Conditional Leastness is the claim that in every situation where Eva did not come, the claim *every girl came* is false. The role of this meaning component is threefold. It is responsible for the containment inference (in our example, this is the inference that Eva is a girl). It is also responsible for the fact that *except* is not compatible with existential quantifiers. Specifically, with some additional independently motivated assumptions about indefinites, Conditional Leastness is guaranteed to contradict Conditional Domain Subtraction if the quantifier *except* operates on is existential. Thus, under the assumption that contradictions that cannot be repaired by replacing open-class lexical items are perceived as ungrammatical in natural languages<sup>2</sup>, the ungrammaticality of sentences like (11) is predicted. The third role of this meaning component is

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<sup>2</sup> See Jon Gajewski's 2002 manuscript 'L-analyticity and Natural Language'.

that it controls the ellipsis resolution in *except*-clauses and ensures that the ellipsis is resolved with the right polarity.

I show how the analysis proposed here explains all the cases that are explained by the classic theory and how it explains the cases that the classic theory cannot explain, such as examples involving prepositional phrases and multiple constituents, like the ones shown in (3) and (5). The additional benefit of the approach presented in this paper is that it correctly captures the contribution of modal operators such as *possibly* inside exceptives phrases. When *possibly* occurs inside an *except*-phrase, like in (19), it does not target the containment inference (Eva has to be a girl in (19), not ‘possibly’ a girl) or the domain subtraction inference (the sentence is true if every girl other than Eva came, the mere possibility of every other girl coming cannot make the sentence true), it only targets the negative inference: it is possible that Eva did not come<sup>3</sup>. The approach I propose here is the first compositional treatment of such modal operators inside *except*-phrases.

(19) Every girl came except, possibly, Eva.

The discussion in this paper will go as follows. In Section 2 I introduce the classic approach to the semantics of exceptives proposed by von Fintel (1993, 1994). In Section 3 I show that English exceptives introduced by *except* cannot be analyzed in those terms. I argue that sometimes what follows *except* can only be understood as a remnant of a clause. In Section 4 I present my analysis and show how it captures the inferences *except* contributes and the restrictions on its use. In Section 5 I show how this analysis captures the cases with PPs and multiple remnants in *except*-phrases. In Section 6 I propose a modification of my analysis that captures the cases where *except*-phrases contain plural or disjunctive remnants. In Section 7 I show how this modified version of the analysis captures the interaction of *except* and *possibly*.

## 2. The Classic Approach to the Semantics of Exceptives

An approach to the semantics of exceptives that captures the inferences they contribute and the restrictions on their use was proposed by von Fintel (1993, 1994). I will introduce von Fintel’s system by using an example with a *but*-exceptive because this is the construction this analysis was designed for.

(20) Every girl but Eva and Mary came.

The sentence in (20) is true only if every girl who is not Eva or Mary came. However, as von Fintel observes, it is not enough to simply subtract the set {Eva, Mary} from the domain of *every girl*. This does not capture the inferences that Eva and Mary are girls and that they did not come. It also does not account for the fact that (21) is not a well-formed sentence. Subtracting a set from the domain of the existential quantifier in (21) would make the sentence more informative: an existential is more informative on a smaller domain. However, *but* is not compatible with *some*.

(21) \*Some girl but Eva and Mary came.

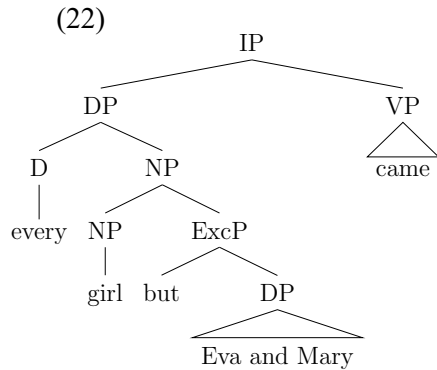
According to this theory, the contribution of an exceptive is twofold. An exceptive subtracts a set from the domain of a quantifier and states that this is the minimal set that has to be subtracted in order for the quantificational claim to be true. The last claim is known in the literature as the Leastness Condition (the term is from (Gajewski 2008, p.75)). The Leastness Condition derives the containment entailment and the Negative Entailment and explains the distribution puzzle in a straightforward way. Specifically, in (20) Leastness is the claim that if either Eva or Mary are not removed from the set of girls, the universal

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<sup>3</sup> I thank A. Hirsch (p.c.), who shared with me his observation that *possibly* only targets the negative inference.

quantificational claim is false. Since the subtraction of this set is necessary for the quantificational claim to be true, Mary and Eva have to be girls and have to be among the people who did not come.

Formally, those ideas can be implemented under the assumption that the *but*-phrase forms a constituent with *girls* as shown in (22).



*But* has the semantics given in (23). It combines with its own sister (the set denoted by the DP immediately following it), then with a set in the restrictor of the determiner, then with the determiner and with the scopal argument of the quantificational DP. It introduces two claims (the two conjuncts in (23)). The first conjunct in (23) is the quantificational claim, where the set denoted by the sister of *but* is subtracted from the domain of the quantifier. The second conjunct is the Leastness Condition. It quantifies over sets. It states that if a set that does not fully contain the set denoted by the sister of *but* is subtracted from the domain of the quantifier, the resulting quantificational claim is not true.

$$(23) \quad \llbracket \text{but} \rrbracket^g = \lambda B_{\langle \text{et} \rangle}. \lambda A_{\langle \text{et} \rangle}. \lambda D_{\langle \langle \text{et} \rangle \times \langle \text{et} \rangle \rangle}. \lambda P_{\langle \text{et} \rangle}. \\ \text{Domain Subtraction} \quad \text{Leastness} \quad \& \quad \forall Y [B \not\subseteq Y \rightarrow \neg D(A-Y)(P)=1]$$

The result of interpreting the structure in (22) is given in (24). The first conjunct in (24) is the domain subtraction: this is a universal quantificational claim made on a domain that excludes Eva and Mary. The second conjunct is the Leastness Condition. An equivalent formulation of it is given in (25).

(24)  $[[ (22) ]^g = 1$  iff  $\forall x[(x \text{ is a girl} \ \& \ x \notin \{Eva, Mary\}) \rightarrow x \text{ came}] \ \& \ \forall Y[\{Eva, Mary\} \not\subseteq Y \rightarrow \neg \forall x[(x \text{ is a girl} \ \& \ x \notin Y) \rightarrow x \text{ came}]]$

(25)  $\forall Y[\{\text{Eva, Mary}\} \not\subseteq Y \rightarrow \exists x[x \text{ is a girl} \ \& \ x \notin Y \ \& \ \neg x \text{ came}]]$

The quantification over sets in (25) is universal. Let's consider the set that contains every girl other than Eva. It satisfies the restrictor of the quantification over sets in (25), thus there is a girl not belonging to this set who did not come. This can only be Eva. Let's also consider the set that contains every girl other than Mary. According to (25), there is a girl not belonging to this set who did not come. That can only be Mary. Thus, in this system, the negative entailment (the inference that Eva and Mary did not come) and the containment entailment (the inference that Eva and Mary are girls) follow from the Leastness Condition.

As was noted earlier, the solution to the distribution puzzle is also in the Leastness Condition. Under the assumptions about the meaning of *but* that we made in (23), (21) will get the meaning given in (26).

$$(26) \quad \llbracket (21) \rrbracket^g = 1 \text{ iff } \exists x[x \text{ is a girl} \ \& \ x \notin \{\text{Eva, Mary}\} \ \& \ x \text{ came}] \ \& \\ \forall Y[\{\text{Eva, Mary}\} \not\subseteq Y \rightarrow \neg \exists x[x \text{ is a girl} \ \& \ x \notin Y \ \& \ x \text{ came}]]$$

There is no model where the two conjuncts in (26) can be simultaneously true. The second conjunct in (26) is Leastness. Let's consider the empty set  $\emptyset$ . Since  $\emptyset$  does not contain Eva or Mary, Leastness requires that (27) holds: there is no girl in the universe who came. This contradicts the first conjunct in (26) (the domain subtraction): it cannot be simultaneously true that there is a girl who is not Eva or Mary who came and there is no girl who came at all.

$$(27) \quad \neg \exists x[x \text{ is a girl} \ \& \ x \notin \emptyset \ \& \ x \text{ came}]$$

A contradiction of this kind is predicted to always arise if *but* is used with an existential quantifier. Consequently, under the assumption that sentences that are contradictory due to the combination of the functional elements in them are perceived as ungrammatical in natural languages (Jon Gajewski's 2002 manuscript 'L-analyticity and Natural Language'), this approach correctly captures the fact that (21) is ungrammatical in English.

In the next section I will argue that there are exceptive constructions that cannot be analyzed in this way.

### 3. Exceptive Deletion Exists

#### 3.1. English *Except* Does not Introduce a Set of Individuals

In the recent literature it has been observed that there are exceptive constructions where what follows an exceptive marker is a clause and not a DP. Perez-Jimenez and Moreno-Quiben (2010) argue that Spanish exceptives can host remnants of a clausal structure. Potsdam and Polinsky (2017) argue that clausal exceptives exist in Tahitian. Soltan (2016) makes the same point about Egyptian Arabic, Potsdam about Malagasy (in his 2018 NELS-48 poster presentation 'Exceptives and ellipsis').

In this paper, I argue that English *except* belongs to the same class of clausal constructions. I will start this discussion by reviewing the arguments in favor of the idea that English *except* can introduce clauses that were made in the previous literature. Then I will introduce novel arguments against the idea that what follows *except* is interpreted as a set of individuals.

Moltmann (1995) observes that English *except* can contain several constituents of different syntactic types as shown in (28).

$$(28) \quad \text{Every girl danced with every boy everywhere except Eva with Bill in the kitchen.}$$

The sentence in (28) means that Eva did not dance with Bill in the kitchen, but every pair consisting of a girl and a boy other than Eva and Bill danced in every place, even Eva and Bill danced with each other in every place other than the kitchen.

Moltmann (1995) argues that an exceptive can introduce a small clause that semantically is interpreted as a set of tuples ( $\{ \langle \text{Juan, Eva, the kitchen} \rangle \}$ ). This set is subtracted from every set in the denotation of the polyadic quantifier formed from *every man*, *every woman*, *everywhere*. However, as Perez-Jimenez and Moreno-Quiben (2010) point out, this proposal does not explain why *with* and *in* cannot be omitted in (28) as shown in (29).

$$(29) \quad * \text{Every girl danced with every boy everywhere, except Eva Bill the kitchen.}$$

Exceptives with multiple remnants cannot be accounted for within the classic theory. One idea that we can reject is that in cases like (28), an exceptive introduces several sets ( $\{Eva\}$ ,  $\{Bill\}$ ,  $\{the\ kitchen\}$ ) and they are somehow subtracted from the domains of the relevant quantifiers. Then the Leastness Condition is imposed for each of the subtractions. First of all, this idea suffers from the problem noticed by Perez-Jimenez and Moreno-Quiben, illustrated in (29). Secondly, this approach would predict that (30) and (31) should have equivalent meanings. However, that is not the case, as was observed by Moltmann (1995). (30) can be true if Eva danced with Bill: this sentence says that Eva is the only exception to the generalization ‘all girls danced with all boys other than Bill and did not dance with Bill’. One way of being an exception to this generalization for Eva is to dance with Bill. (31) cannot be true in this scenario: it requires that Eva and Bill did not dance together: it states that Eva not dancing with Bill is the only thing that stands in the way of *every girl danced with every boy* being true.

- (30) Every girl except Eva danced with every boy except Bill.
- (31) Every girl danced with every boy except Eva with Bill.

It seems that what follows the exceptive marker in (28) must have a clausal structure. The fact that there are clausal exceptive constructions where only a part of the structure is pronounced does not prove that their surface form is derived by ellipsis. Another possibility is that a part of the structure is shared between the main clause and the *except*-clause. I will not explore this possibility here. As I will show in the next section, there is a constituent in the *except*-clause that is present neither in the main clause nor among the pronounced elements of the *except*-clause, namely, negation.

Exceptives with multiple remnants introduce several new interesting semantic puzzles. As was said in the introduction, one well-established fact about exceptives is that they cannot operate on existential quantifiers (Horn 1989; von Stechow 1994). Exceptives with multiple constituents obey this constraint in their own interesting way: each element of an exceptive phrase has to have a universal quantifier as a correlate in the main clause (as shown by the ungrammatical (32) and (33)) (Moltmann 1995).

- (32) \*Every girl danced with *some* boy except Eva with Bill.
- (33) \**Some* girl danced with every boy except Eva with Bill.

In general, there is no prohibition against existential quantifiers in the main clause as long as an exceptive does not contain a corresponding constituent (as shown by the contrast between (34) and (35))<sup>4</sup>. Those are the facts that a semantic theory of clausal exceptives has to capture.

- (34) Every girl danced with every boy *somewhere* except Eva with Bill.
- (35) \*Every girl danced with every boy *somewhere* except Eva with Bill *in the kitchen*.

The novel challenge to the idea that an exceptive introduces a set that can be used to restrict the domain of a quantifier quantifying over individuals that I would like to add is based on the observation that an exceptive introduced by *except* can host a PP with a meaningful preposition. One such example is given in (36). It is generally assumed that PPs denote functions from individuals to truth values or, in set talk, sets of individuals. *From Barcelona* denotes the set of things that are from Barcelona, the set given in (37).

- (36) I met a student from every city in Spain except from Barcelona.
- (37)  $\{x: x \text{ is from Barcelona}\}$

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<sup>4</sup> I thank Kyle Johnson for the observation that it is only the type of the correlates of the remnants that matters.

Subtraction of this set from the set of cities cannot restrict the domain of the quantifier in the relevant way here, because things that are from Barcelona are not cities. Subtracting things that are from Barcelona from a set of cities in Spain is equivalent to the set of cities in Spain, as shown in (38).

$$(38) \quad \{x: x \text{ is a city in Spain}\} - \{x: x \text{ is from Barcelona}\} = \{x: x \text{ is a city in Spain}\}$$

Moreover, we cannot apply the Leastness condition to get the inferences that Barcelona is a city in Spain and that I did not meet a student from Barcelona. The Leastness condition predicted in this case is as shown in (39). One of the sets satisfying the restrictor of the quantification over sets in (39) is the empty set  $\emptyset$ . Thus, given (39), (40) has to be true. (40) directly contradicts the quantificational claim with domain subtraction in (41). We cannot also say that *except* directly states that Barcelona belongs to the set of cities in Spain because *except* does not have access to the constituent that refers to Barcelona.

$$(39) \quad \forall Y[\{z: z \text{ is from Barcelona}\} \subseteq Y \rightarrow \neg \forall x[(x \text{ is a city in Spain} \ \& \ x \notin Y) \rightarrow \exists y[y \text{ is a student from } x \ \& \text{ I met } y]]]$$

$$(40) \quad \neg \forall x[(x \text{ is a city in Spain} \ \& \ x \notin \emptyset) \rightarrow \exists y[y \text{ is a student from } x \ \& \text{ I met } y]]$$

$$(41) \quad \forall x[(x \text{ is a city in Spain} \ \& \ x \text{ is not from Barcelona}) \rightarrow \exists y[y \text{ is a student from } x \ \& \text{ I met } y]]$$

Those inferences are however still present in (36). The containment inference is tested in (42). This sentence is infelicitous because New York is not a city in Spain. The negative inference is tested in (43): due to the fact that *except* contributes the negative inference the claim with *except* cannot be conjoined with the claim that contradicts that inference.

$$(42) \quad \#I \text{ met a student from every city in Spain except from New York.}$$

$$(43) \quad \#I \text{ met a student from Barcelona and I met a student from every city in Spain except from Barcelona.}$$

Another case challenging the classic phrasal syntactic analysis of exceptives is the one where an exceptive phrase contains a prepositional phrase that has no correlate (a corresponding antecedent) in the main clause. The example is given in (44) (this example is based on a structurally similar example from Spanish discussed in Perez-Jimenez and Moreno-Quiben (2010)<sup>5</sup>, but the argument I develop here is a new one). The contrast between (44) and (45), where the PP is substituted by a DP, tells us that the preposition *from* makes an important contribution to the overall meaning of the sentence.

$$(44) \quad I \text{ got no presents except from my mom.}$$

$$(45) \quad \#I \text{ got no presents except my mom.}$$

Note that in English *from my mom* cannot be derived by ellipsis from *the one from my mom*. This is because *the one* is not a phrase that can be deleted in English, as shown by the contrast between (46) and (47).

$$(46) \quad I \text{ got two presents; the one from my mom was nice.}$$

$$(47) \quad *I \text{ got two presents; from my mom was nice.}$$

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<sup>5</sup> The observation that *except* can host a PP that does not have a correlate in the main clause was independently and simultaneously made by Potsdam and Polinsky (in their GLOW-42 2019 poster presentation ‘Clausal and phrasal exceptives’) who also argued that English *except* can be a clausal exceptive construction.



Here we could try to take the set of things that are from my mom and subtract it from the set of presents, as shown in (48). This move allows us to restrict the quantification to those presents that are not things from my mom, as shown in (49).

$$(48) \{y: y \text{ is a present}\} - \{x: x \text{ is from my mom}\} = \{z: z \text{ is a present \& } z \text{ is not from my mom}\}$$

$$(49) \neg \exists x [x \text{ is a present \& } x \text{ is not from my mom \& I got } x]$$

However, extending the analysis von Fintel proposed for *but* to this case with *except* would also require adding the second claim – the Leastness Condition. Leastness in this case would be the claim in (50): any set such that its subtraction from the domain of the quantifier makes the quantificational claim true contains the set of things from my mom as its subset.

$$(50) \forall Y [\neg \exists x [x \text{ is a present \& } x \notin Y \& \text{ I got } x] \rightarrow \{x: x \text{ is from my mom}\} \subseteq Y]$$

This claim in (50) is equivalent to (51). The proof for that is given in (52)<sup>6</sup>.

$$(51) \forall x [x \text{ is from my mom} \rightarrow x \text{ is a present \& I got } x]$$

$$\begin{aligned} (52) \quad (50) &= \\ &\forall Y [\forall x [(x \text{ is a present \& } x \notin Y) \rightarrow \neg \text{I got } x] \rightarrow \{x: x \text{ is from my mom}\} \subseteq Y] = \\ &\forall Y [(\{y: y \text{ is a present}\} \cap \bar{Y}) \subseteq \overline{\{z: \text{I got } z\}} \rightarrow \{x: x \text{ is from my mom}\} \subseteq Y] = \\ &\forall Y [(\{y: y \text{ is a present}\} \cap \{z: \text{I got } z\}) \subseteq Y \rightarrow \{x: x \text{ is from my mom}\} \subseteq Y] = \\ &\{x: x \text{ is from my mom}\} \subseteq \{y: y \text{ is a present}\} \cap \{z: \text{I got } z\} \end{aligned}$$

This amounts to the following claim: every object that is from my mom is a present such that I got it. The sentence in (44) does not come with this inference. It does not require that my mom gives things only to me or that all the objects that are from my mom are gifts. Thus, this example cannot be accounted for in terms of the classic analysis.

In this section I have argued that there are cases where English *except* does not introduce a set of individuals that can be used to restrict the domain of a quantifier quantifying over individuals. Specifically, *except* can host multiple constituents or prepositional phrases with meaningful prepositions. In the next section I will show that in some cases the unpronounced part of an *except*-clause contains more material in it than the main clause of the sentence. This is the argument in favor of the idea that the structures of the examples I have discussed in this section are derived by ellipsis rather than via some process that results in sharing a part of the structure between the *except*-clause and the main clause.

### 3.2. Evidence for the Polarity Mismatch

In the introduction, I suggested that (1) (repeated here as (53)) can be derived from (2) (repeated here as (54)) by ellipsis.

(53) Every girl came except Eva.

(54) Every girl came except Eva did not come.

<sup>6</sup> This proof is built on the general proof that von Fintel (1994) provides. The set theoretic tautologies employed here are as follows. For any sets A, B and C:

(i)  $(A \cap \bar{B}) \subseteq \bar{C} = (A \cap C) \subseteq B$

(ii)  $\forall Y [A \subseteq Y \rightarrow B \subseteq Y] = B \subseteq A$

A reader can observe the polarity mismatch in (54) between the main clause and the *except*-clause: there is negation in the *except*-clause that is not present in the main clause<sup>7</sup>.

One fact supporting the idea that ellipsis should be resolved with the polarity mismatch in this case is that most of English speakers find the non-elided version of (53) given in (54) acceptable. None of them accept (55) where the *except*-clause is positive.

(55) #Every girl came except Eva came.

Now, let's look at the interaction of *except* with a negative quantifier. I propose that (56) can be derived from (57) by ellipsis. Some speakers of English find (57) acceptable. No English speaker accepts (58) where the polarity of the *except*-clause is negative.

(56) No girl came except Eva.

(57) No girl came except Eva came.

(58) #No girl came except Eva did not come.

If a reduced *except*-clause operating on a universal quantifier has negation in it and a reduced *except*-clause operating on a negative quantifier does not, the prediction is that we should see differences between those two cases with respect to licensing of negative polarity items (NPIs). Specifically, under the constituent-based approach to NPI licensing (Chierchia 2004; Gajewski 2005; Homer 2011), an NPI is licensed if there is a syntactic constituent containing that NPI which constitutes a downward entailing (DE) environment<sup>8</sup>. For instance, in (59) the global position of the NPI *any vegetables* in the sentence is not in a DE environment. This is because there are two negations in (59) and they cancel each other out. However, the NPI is licensed inside the syntactic constituent in brackets in (59), which is a DE environment.

(59) It's not true that [John did not eat any vegetables].

In a similar way, if what I said about how the exceptive deletion is resolved is correct, NPIs are predicted to be licensed inside reduced *except*-clauses providing exceptions for universal quantifiers, but not inside reduced *except*-clauses providing exceptions for negative quantifiers because only in the first case there is a constituent – the sentence following *except* – that is a downward entailing environment because it contains negation.

This prediction is borne out as the contrast between (60) and (61) shows. This observation has not been made in the previous work on exceptives.<sup>9</sup>

(60) John danced with *everyone* except with *any girl* from his class.

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<sup>7</sup> R. Stockwell and D. Wong in their 2019 NELS-50 'Sprouting and the structure of *except*-phrases' also argued that *except*-phrases can involve ellipsis and that ellipsis is resolved with a polarity mismatch based on the fact that *except*-phrases can serve as antecedents to sprouting with negation in the ellipsis site as in *John likes everyone except Ann, but I don't know why he does not like Ann*.

<sup>8</sup> It is generally assumed that NPIs are licensed in a downward entailing (DE) environment (starting from the work of Fauconnier (1975, 1978) and Ladusaw (1979)).

<sup>9</sup> Interestingly, the exceptive construction introduced by *but* does not show a similar contrast: NPIs are not licensed inside *but*-phrases independently of whether the quantifier is universal or negative (as shown in (i) and (ii)). Another fact about *but*-exceptives is that they do not show traces of a clausal structure: the maximal syntactic constituent they can host is a DP (as shown in (iv)). Those facts can be taken as an argument supporting the idea that *but*-exceptives are not clausal.

(i) \*John danced with *everyone* but *any girl* from his class.

(ii) \*John danced with *no one* but *any girl* from his class.

(iii) I met a student from every city in Spain but Barcelona.

(iv) \*I met a student from every city in Spain but from Barcelona.

(61) \*John danced with *no one* except with *any girl* from his class.

In the story I propose the contrast between (60) and (61) follows from the way the ellipsis is resolved in the two cases (shown in (62) and (63)). There is a constituent, namely, the constituent in brackets, that is a DE environment for *any girl* in (62), but not in (63).

(62) John danced with *everyone* except [John did ~~not~~ dance with *any girl* from his class].

(63) \*John danced with *no one* except [John danced with *any girl* from his class].

Crucially, if we consider the entire sentence (60) the NPI is not in a DE environment. The claim with a larger exception in (64) does not grant the inference that the claim with a smaller exception in (65) is true. The problem is that in (64) *every* quantifies over the domain that is smaller than the domain of *every* in (65) and *every* is not upward entailing on its domain.

(64) John danced with everyone except with girls from his class.

(65) John danced with everyone except with *blond* girls from his class.

Let's consider a situation where there is a girl with dark hair in John's class, say Zahra. The claim in (65) can be true only if John danced with her (he danced with everyone who is not a *blond* girl in his class). This is not something that follows from (64): this claim does not impose this requirement (he danced with everyone who is not a girl in his class).

It has been argued in (von Stechow 1999) that NPIs can be licensed in Strawson DE environments. Thus, we need to establish that the NPI is not in a Strawson DE environment globally in (60) in order for the argument presented here to go through. This notion was introduced in order to account for the NPI licensing in sentences like (66).

(66) Only John ate any vegetables.

*Any vegetables* is not in a DE environment in (66): (67) does not entail (68). The problem is that (68) requires that John ate cucumbers which is not something that follows from (67).

(67) Only John ate vegetables.

(68) Only John ate cucumbers.

However, the inference that John ate cucumbers is generally treated as the presupposition introduced by *only* in (68) and not as a part of its truth conditional content (Horn 1992, 1996; Atlas 1993). The assertive content of (67) entails the assertive content of (68): from the fact that no one among the people who are not John ate vegetables we can conclude that no one among the people who are not John ate cucumbers. This is what the notion of Strawson Entailment captures.

(69) Strawson Entailment:

A sentence X Strawson-entails another sentence Y if the truth-conditional content of X entails the truth conditional content of Y if the presuppositions of Y are satisfied.

The generalization that captures the fact that *any vegetables* is licensed in (66) is as follows: NPIs are licensed in Strawson downward entailing environments.

The NPI in (60) is not in a Strawson DE environment. The NPI would be in such an environment in (60) if the quantificational claim (that John danced with everyone who is not a girl from his class) were contributed at the presuppositional level and the only assertive contribution of *except* were that John did not dance with any girl from his class. If that were the case we could say that (64) Strawson

entails (65): the claim that John did not dance with girls from his class entails that John did not dance with blond girls from his class. The quantificational claim, however, is not contributed at the presuppositional level. To show this, I will use the classic question test and ‘wait a minute’ test (von Stechow 2004). The question in (70) is understood as a question about whether John danced with everyone who is not a girl from his class when it is pronounced with a neutral intonation.

(70) Did John dance with everyone except with girls from his class?

‘Wait a minute’ test points in the same direction. The dialog in (71) is not felicitous because the information about John dancing with everyone (with the appropriate restriction) is not contributed at the presuppositional level.

(71) A: John danced with everyone except with girls from his class.

B: #Hey, wait a minute, I did not know John danced with everyone who is not a girl from his class.

To conclude, the NPI in (60) is not in a downward or Strawson downward entailing environment globally. This means that the NPI has to be licensed locally.

In the semantic theory of clausal exceptives that I propose the polarity of the clause following *except* is restricted by the meaning. Ellipsis can be resolved positively and negatively in each case. Choosing a clause with a wrong polarity leads to a meaning that is not well-formed. This is shown in Section 5 where the semantic proposal is introduced and discussed.

If this discussion is on the right track, exceptive deletion allows for a polarity mismatch between the antecedent and the ellipsis site. Polarity mismatches of this kind were reported to be possible in sluicing, as shown in (72) (Rudin (2019), following M. Kroll).

(72) Do this or explain why ~~you did not do this~~. (M.Kroll ‘Polarity Reversals under Sluicing’ 2016 manuscript)

As Rudin (2019) points out, not all English speakers find this example acceptable. It certainly does not feel as natural as (53) (repeated below as (73)).

(73) Every girl came except Eva.

I believe that what is going on in (73) is more similar to the Russian case in (74). In (74) there is a polarity mismatch between the positive antecedent and the negative elided clause. The remnant of ellipsis in (74) contains an n-word. N-words in Russian require the presence of a clause-mate negation, as the contrast between the two versions of (75) shows (see Brown 1999; Pereltsvaig 2000 among others). Somehow the presence of an n-word licenses ellipsis of a constituent containing negation. I propose that, in a similar way, the presence of *except* licenses ellipsis of a constituent containing negation in exceptive deletion.

(74) Vanya pročital tri knigi, a ja ni odnoj.  
Vanya read three books and I n-word one  
‘Vanya read 3 books and I did not read any’

(75) Ja **\*(ne)** pročital ni odnoj knigi.  
I **NEG** read n-word one book  
‘I did not read any books’

### 3.3 It is not Just a Conjunction of Two Clauses

The simplest hypothesis about the meaning of clausal exceptives is that the clause introduced by an exceptive and the clause containing a quantifier are simply coordinated. The idea would be that (76) is structurally similar to (77) and has the same meaning.

- (76) I danced with everyone except with John.
- (77) I danced with everyone, but I did not dance with John.

Under this hypothesis, the Negative Entailment is explained directly because it is simply the contribution of the exceptive clause. It is standardly assumed that a quantifier comes with a covert domain restriction variable<sup>10</sup>. The sentence in (77) is not perceived as contradictory because there is a possible value for the covert domain restriction variable *everyone* comes with that does not include John. The same reasoning can apply to (76). This accounts for the domain subtraction inference.

The more challenging problem is the distribution puzzle. Under the assumption that an exceptive clause and a main clause are simply coordinated in clausal exceptives, one can try to explain the badness of *except* with *some* by saying that *except* obligatorily introduces a silent *only*. Thus the badness of (79) would essentially follow from the unacceptability of (78), which must be due to the pragmatic oddness of putting together the two claims: that Alex is the only person who did not help and that some people helped.

- (78) #Some of my friends came to help, only not Alex.
- (79) #Some of my friends came to help, except Alex.

One problem is that such an analysis does not explain why a sentence with *except* has to have a quantifier in the first place. The sentence in (80) where the DP *Ann* is associated with *only*, is acceptable. However, (81) is completely not well-formed.

- (80) I will talk to Mary and Ivy, only not to Ann.
- (81) \*I will talk to Mary and Ivy except to Ann.

A more challenging problem for this idea is the containment entailment. There is a contrast between the well-formed example with *only* in (82) and the infelicitous example with *except* in (83). The example (83) is infelicitous because *except* requires Peter to be one of my girlfriends.

- (82) None of my girlfriends helped me, only Peter, who is a complete stranger (did).
- (83) #None of my girlfriends helped me, except Peter, who is a complete stranger.

In a similar way, (84) is well-formed because there is no containment inference here, whereas (85) requires that your computer is a textbook or a note and this is why this sentence is infelicitous.

- (84) You can use any textbooks or notes, only not your computer.
- (85) #You can use any textbooks or notes except your computer.

We can conclude from this discussion that the simple coordination analysis cannot work for exceptives because it does not capture some of their most basic properties.

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<sup>10</sup> This idea is based on von Stechow's (1994) way of modeling quantifier domain restriction.

#### 4. The Proposal

In this section I propose a semantic analysis for clausal exceptives introduced by *except*. I show how this analysis captures the facts that the classic analysis of exceptives captures, such as the inferences that exceptives come with and the restrictions on their use. The semantic theory I develop also explains why an *except*-clause providing an exception for a universal claim has to have negation in it and an *except*-clause providing an exception to a negative claim cannot have negation in it.

Speaking informally, I propose that the *except*-clause in (86) contributes three things. It states that what follows *except* is true: (87). This captures the negative inference. It also establishes a law-like relationship between the clause following *except* and the main clause: (88). They are not just two random propositions accidentally put together: because Eva did not come, it is not true that every girl came. This aspect of the meaning captures the containment inference. The third contribution of *except* is that nothing else stands in a way of the quantificational claim being true: (89). This captures the domain subtraction inference.

- (86) Every girl came except Eva ~~did not come~~.
- (87) Eva did not come.
- (88) In every situation where Eva did not come, the quantificational claim is not true.
- (89) Had Eva come while everything else remained the same, it would have been true that every girl came.

##### 4.1 Modeling Negative Entailment and Containment

In this work I will use situations rather than possible worlds because situations can also be restrictors for the domain of quantification (Kratzer 2007/2019, Schwarz 2009, Schwarz 2012). I will assume a possibilistic situation semantics, where situations are viewed as parts of possible worlds (Kratzer 1989). However, nothing I propose here requires the use of situations as opposed to possible worlds, these ideas can be implemented in a system where possible worlds are used instead of situations.

Let's assume that  $s_0$  is the actual topic situation – the situation with respect to which the entire claim is evaluated. Given the assumptions about the underlying syntactic structure of the elided *except*-clause in (86) that I made here, we do not need to do any work to capture the inference that Eva did not come. This information is provided directly by the clause following *except*. The contribution of *except* that is responsible for the negative inference in (86) is as shown in (90).

- (90)  $\neg \text{Eva came in } s_0$

In von Stechow's system the negative and the containment entailments came from the Leastness condition – the claim that if at least one of the individuals introduced by an exceptive is not subtracted from the domain of the given quantifier, the quantificational claim is not true. In order to capture the containment inference in the conditional system, we can implement a similar idea. We can say that in all possible situations where the fact about Eva not coming remains the same, the quantificational claim is not true. The formula in (91) captures this idea. As the reader can verify, (91) is equivalent to (92).

- (91)  $\forall s[\neg \text{Eva came in } s \rightarrow \neg \forall x[x \text{ is a girl in } s_0 \rightarrow x \text{ came in } s]]$
- (92)  $\forall s[\neg \text{Eva came in } s \rightarrow \exists x[x \text{ is a girl in } s_0 \ \& \ \neg x \text{ came in } s]]$

One crucial fact about (92) is that the extension of the predicate denoted by *girl* is fixed. It is evaluated with respect to the actual topic situation  $s_0$  and does not vary across possible situations (the relevant

situation variable is boxed in (91) and (92)). In allowing the predicate inside the DP *every girl* to be evaluated with respect to a different situation than the predicate inside the VP of the main clause *came* I follow much of the literature (Fodor 1970; Enç 1986; Cresswell 1990; Percus 2000; Kratzer 2007/2019; Keshet 2008; Schwarz 2009, 2012).

According to (92), in every situation where Eva did not come, there is a girl from the topic situation who did not come. This can only be true if Eva is a girl in the topic situation. This is because there is only one way in which Eva's not coming can guarantee that there is a girl from  $s_0$  who did not come in all possible situations – Eva is that girl who did not come.

Let's consider a situation where Eva is not a girl in  $s_0$ . The formula in (92) cannot be true in this scenario. This is because the quantification over situations in (92) is not restricted to the situations that are most similar to the actual topic situation – the quantification is simply over every possible situation where Eva did not come. This means that (92) cannot be true in a scenario where Eva is not a girl in  $s_0$  but, say, has a daughter who is a girl and who goes everywhere where Eva goes in  $s_0$ . In this scenario, in every situation *that is most similar to  $s_0$*  among the ones where Eva did not come, there is a girl from  $s_0$  who did not come. However, it is not true that in every situation where Eva did not come, there is a girl from  $s_0$  who did not come. This is because there is a possible situation where Eva, who is not a girl in  $s_0$ , did not come, but every girl from  $s_0$  came.

I will call this claim Conditional Leastness. Conditional Leastness is a part of the meaning contributed by an exceptive that is responsible for the containment inference. As I will show later, this meaning component also provides the solution for the distribution puzzle and is responsible for the ellipsis resolution.

I will take Conditional Leastness to be the presuppositional component of a sentence with *except*. Applying the classic negation test shows that this is on the right track: (93) still requires that Eva is a girl.

(93) It is not true that every girl came except Eva.

A more difficult question is whether the negative inference (that Eva did not come) has to be a part of the presuppositional or the assertive content. I will assume here that this meaning component is also contributed at the presuppositional level. The reason for this is that a sentence that expresses the negative inference of a sentence with *except* and the sentence with *except* can be a part of the same discourse as shown in (94). If at the level of meaning the negative claim was conjoined with the quantificational claim with domain subtraction, (94) would have been as bad as (95).

(94) Eva did not come. Every girl came except Eva.

(95) #Eva did not come. Every girl who is not Eva came and Eva did not come.

## 4.2 Modeling Domain Subtraction

In this section I show how the domain subtraction can be expressed in terms of quantification over possible situations. Since the quantificational claim in the main clause of (86) (*every girl came*) is not true in  $s_0$ , I propose that we do modal displacement and evaluate it in a different possible situation. The intuition that I would like to capture here is that there is a similarity between the meaning of the example with *except* in (86) we have considered so far and the conditional sentence in (96).

(96) If it were not true that Eva did not come, it would have been true that every girl came.

It is standardly assumed that conditionals are interpreted as restrictors of covert or overt quantifiers over possible worlds or situations (starting from (Lewis 1975; Kratzer 1978, 1986)). It is also standardly assumed that natural language quantifiers over possible words or situations are restricted to those words or situations that minimally differ from the actual word (Stalnaker 1968; Lewis 1973a,b, 1981; Kratzer 1977, 1979, 1981a,b, 1989). The conditional in (96) roughly gets the meaning given in (97).

- (97) In all of the possible situations that are most similar to the actual situation among those where Eva came, it holds that every girl came.

When we try to express the meaning of exceptives in terms of quantification over possible situations, one problem we face is how to capture the relevant notion of similarity between them. Specifically, the sentence in (96) can be true if no girl in the actual topic situation came at all. Let's consider a scenario where the actual topic situation is such that Eva is the leader of all girls and they do whatever she does. In this case in the situations where Eva came that are the most similar to the actual topic situation, Eva's coming would make every girl come, because this is what they usually do in the actual topic situation. Thus, if the actual world is such that changing Eva's behavior can guarantee that other girls change their behavior, the sentence in (96) can be true even if in real life it is not true that not counting Eva, every girl came.

Our intuitions are different for the sentence with an exceptive in (86). This sentence cannot be true in the scenario described above: (86) can only be true in the actual topic situation if every girl other than Eva came. This means that exceptive constructions are less flexible than their conditional paraphrases with respect to the notion of similarity between the situations. When we interpret (86), we only look at possible situations where the facts about other people coming are exactly the same as in the actual topic situation. The difference between this example and the example with a counterfactual in (96) is that in that case we could also look at situations where facts about other girls coming changed.

The question is how to get the information about other individuals coming given that the exceptive clause that is supposed to characterize the restriction on the possible situations we are looking at is simply *Eva did not come*. The fact we could use here is that according to the standard assumptions about ellipsis, the remnant of an elided clause is marked with focus (starting at least from Rooth 1992b). Thus, in (86) we have access not only to the proposition denoted by *Eva did not come*, but also to its focus alternatives formed by substituting the element marked with focus (namely, *Eva*) by other possible elements of the same semantic type (Rooth 1985, 1992a). The focus value of the sentence *Eva<sub>F</sub> did not come* is given in (98) (the superscript F on the interpretation function means that the focus value is computed).

- (98)  $\llbracket \text{Eva}_F \text{ did not come} \rrbracket^{\text{gF}} = \{p: \exists x[p=\lambda s'. \neg x \text{ came in } s']\} =$   
 $\{\lambda s. \neg \text{Eva came in } s, \lambda s'. \neg \text{Mary came in } s', \lambda s''. \neg \text{Sveta came in } s'',$   
 $\lambda s'''. \neg \text{Anna came in } s''', \lambda s. \neg \text{Bill came in } s, \lambda s'. \neg \text{John came in } s', \text{etc...}\}$

The possible situations where the facts about people coming other than Eva are the same as in  $s_0$  are picked by the function in (99).

- (99)  $\lambda s. \forall p[(p \neq \lambda s'. \neg \text{Eva came in } s' \ \& \ p \in \llbracket \text{Eva}_F \text{ did not come} \rrbracket^{\text{gF}}) \rightarrow p(s) = p(s_0)]$

This is a set of situations where the propositions of the general shape 'x did not come' (where x is not Eva) have the same truth value as in  $s_0$ . If Mary did not come in  $s_0$ , then the situations we are looking at in (99) are the situations where Mary did not come. If Mary came in  $s_0$ , then the situations were looking at are the situations where Mary came.



It is worth pointing out that in the situations described by the function in (99), the facts related to coming remain the same as in  $s_0$  not only for girls, but also for all other individuals. This is because the focus alternatives to *Eva* include *John*, *Bill*, etc. One advantage of using this strategy is that we do not need to know in advance who is a girl in order to restrict the quantification over situations in the relevant way.

The domain subtraction can be expressed in terms of the quantification over possible situations as shown in (100).

$$(100) \exists s [\forall p [(p \neq \lambda s'. \neg \text{Eva came in } s' \ \& \ p \in \llbracket \text{Eva}_F \text{ did not come} \rrbracket^{gF}) \rightarrow p(s) = p(s_0)] \ \& \ \forall x [x \text{ is a girl in } \boxed{s_0} \rightarrow x \text{ came in } s]]$$

The claim in (100) is true in  $s_0$  if and only if every girl in  $s_0$  who is not Eva came. In other words: (100) and (101) say the same thing. This is because (100) states that there is a possible situation where everyone who is a girl in  $s_0$  came. It also says about that situation that every proposition of the form ‘ $x$  did not come’ where  $x$  is not Eva has the same truth value as in  $s_0$ . Consequently, (100) can be true only if every girl other than Eva came in  $s_0$ . Given that we know from Conditional Leastness that Eva is a girl in  $s_0$ , a possible situation we are looking at in (100) is the one where Eva came.

$$(101) \forall x [(x \text{ is a girl in } s_0 \ \& \ x \text{ is not Eva}) \rightarrow x \text{ came in } s_0]$$

The extension of the predicate denoted by *girl* is fixed again in (100): it is evaluated with respect to the actual topic situation and does not vary across possible situations. Let’s see what happens if the extension of this predicate is allowed to vary with possible situations as shown in (102). The relevant difference between (100) and (102) is boxed: it is the situation variable.

$$(102) \exists s [\forall p [(p \neq \lambda s'. \neg \text{Eva came in } s' \ \& \ p \in \llbracket \text{Eva}_F \text{ did not come} \rrbracket^{gF}) \rightarrow p(s) = p(s_0)] \ \& \ \forall x [x \text{ is a girl in } \boxed{s} \rightarrow x \text{ came in } s]]$$

The claim in (102) is too weak. Imagine that no individual who is a girl in  $s_0$  came in  $s_0$ , but two boys John and Bill came. There is a possible situation where the predicate *girl* denotes a set consisting of John and Bill. (102) will be true in this scenario, but our sentence with *except* in (86) will not be true. Therefore, (102) does not correctly capture the meaning of (86). We are only interested in people who are girls in  $s_0$ .

I will call this aspect of the meaning contributed by a clausal exceptive Conditional Domain Subtraction. There is a domain subtraction here: we subtract the proposition denoted by the clause following *except* from the domain of quantification over propositions that restricts the quantification over possible situations.

Note that (100), just like the domain subtraction in von Stechow’s system, by itself does not entail that Eva is a girl or that she did not come. Let’s consider the formula in (103) that is just like (100), but a clearly female name *Eva* is substituted by a clearly male name *John*. If all girls in  $s_0$  came, (103) is true. Since John is not in the actual extension of the predicate denoted by *girl* it does not matter if he came or not in the actual topic situation  $s_0$ . His coming or not coming cannot have any effect on the truthfulness of the quantificational claim.

$$(103) \exists s [\forall p [(p \neq \lambda s'. \neg \text{John came in } s' \ \& \ p \in \llbracket \text{John}_F \text{ did not come} \rrbracket^{gF}) \rightarrow p(s) = p(s_0)] \ \& \ \forall x [x \text{ is a girl in } s_0 \rightarrow x \text{ came in } s]]$$

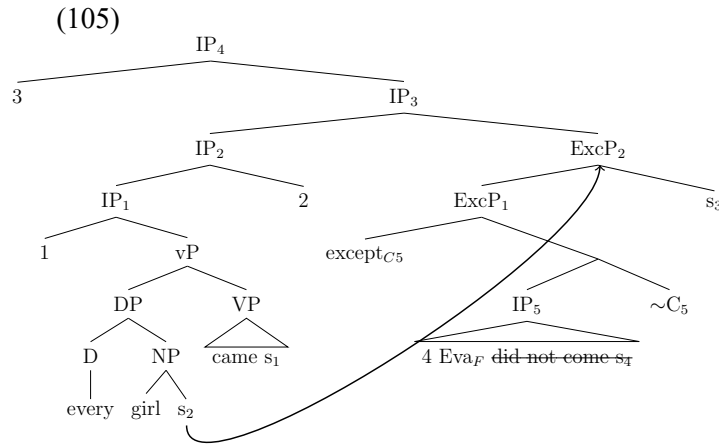
So far I have shown how the meaning of the specific sentence with *except* given in (86) can be expressed via three claims: the Negative claim, Conditional Leastness and Conditional Domain Subtraction. In what follows I will show how this result can be achieved in a compositional manner.

### 4.3 Compositional Semantics

I implement the ideas discussed in the previous section in a system with indexed world/situation variables in the syntax (Percus 2000; Kratzer 2007/2019; Schwarz 2009, 2012).

A possible LF for our example (86), repeated below in (104), is shown in (105).

(104) Every girl came except Eva ~~did not come~~.



In (105) the exceptive phrase moves from its connected position and leaves a trace  $s_2$  of type  $s$ . It is shown as rightward movement because in English exceptive phrases introduced by *except* can only move rightwards<sup>11</sup>. Following the standard assumptions, a binder for this trace 2 is merged in syntax. This binder is merged above the binder 1 that binds the situation variable inside the  $vP$  – the variable with respect to which the main predicate of the quantificational sentence is evaluated. There is another situation variable  $s_3$  inside the exceptive phrase – it is bound by the matrix abstractor.

With those assumptions, the denotation of the sister of Exceptive Phrase<sub>2</sub> (ExcP<sub>2</sub>) is shown in (106).

(106)  $\lambda s'. \lambda s''. \forall x[x \text{ is a girl in } s' \rightarrow x \text{ came in } s'']$

Inside the exceptive phrase, the remnant of ellipsis is marked with focus ( $Eva_F$ ). I follow Rooth (1992a) in assuming that focus is interpreted via a special operator  $\sim$ . A structure consisting of  $\sim$  and a silent variable is merged every time there is an element marked with focus in a sentence (like  $\sim C_5$  in (105)). The value of the variable that comes with  $\sim$  is restricted by the focus value of a clause the structure

<sup>11</sup> In this respect English *except* behaves like a typical connected exceptive by Hoeksema's (1987, 1995) criteria. It can only appear in the position directly adjacent to a quantificational DP or at the end of a sentence.

- (i) Every girl except Eva came.
  - (ii) Every girl came except Eva.
  - (iii) \* Except Eva every girl came.
- Compare this with a free exceptive *except for*, which is fine in all three positions.
- (iv) Every girl except for Eva came.
  - (v) Every girl came except for Eva.
  - (vi) Except for Eva every girl came.

consisting of  $\sim$  and the variable  $c$ -commands. This variable can be used by focus sensitive operators such as *except*. This is done by providing a focus sensitive operator with a variable that is co-indexed with the variable introduced with  $\sim$  and assigning the focus sensitive operator a meaning that makes reference to this silent variable.

A structure consisting of  $\sim$  followed by a silent variable and its sister – a clause with a focused element is interpreted via the rule given in (107).  $\sim$  does not have any effect on the at-issue content of a sentence it occurs in. It introduces a presupposition that the value of the silent variable that comes with  $\sim$  ( $C_5$  in our case) is a subset of the focus value of the clause with a focused element.

$$(107) \quad \llbracket \phi(\sim\gamma) \rrbracket^g = \llbracket \phi \rrbracket^g \\ \llbracket \phi(\sim\gamma) \rrbracket^g \text{ is defined only if } \llbracket \gamma \rrbracket^g \subseteq \llbracket \phi \rrbracket^{gF}$$

The focus value of  $IP_5$  (the sister of  $\sim$  with a variable) is as shown in (108).

$$(108) \quad \llbracket 4 \text{ Eva}_F \text{ did not come } s_4 \rrbracket^{gF} = \\ \{ \lambda s. \neg \text{Eva came in } s, \lambda s'. \neg \text{Mary came in } s', \lambda s''. \neg \text{Sveta came in } s'', \\ \lambda s'''. \neg \text{Anna came in } s''', \lambda s. \neg \text{Bill came in } s, \lambda s'. \neg \text{John came in } s', \text{ etc} \}$$

The value of  $C_5$  has to be a subset of this set in (108). Let's give it the value shown in (109).

$$(109) \quad \llbracket C_5 \rrbracket^g = g(5) = \\ \{ \lambda s. \neg \text{Eva came in } s, \lambda s'. \neg \text{Mary came in } s', \lambda s''. \neg \text{Sveta came in } s'', \\ \lambda s'''. \neg \text{Anna came in } s''', \lambda s. \neg \text{Bill came in } s, \lambda s'. \neg \text{John came in } s' \}$$

Since  $\sim$  does not have any effect on the at-issue content of the structure it occurs in, the sister of *except*<sub>C5</sub> denotes the proposition shown in (110).

$$(110) \quad \lambda s. \neg \text{Eva came in } s$$

The denotation for the focus sensitive operator *except* that carries a variable  $C_n$  where  $n$  is a numerical index is given in (111).

$$(111) \quad \llbracket \text{except}_{C_n} \rrbracket^g = \lambda q_{\langle s \rangle}. \lambda s'. \lambda M_{\langle s \rangle \langle s' \rangle}: q(s')=1 \ \& \ \forall s [q(s)=1 \rightarrow \neg M(s')(s)=1]. \\ \exists s [\forall p [(p \neq q \ \& \ p \in g(n)) \rightarrow p(s)=p(s')] \rightarrow M(s')(s)=1]$$

This is a function that is looking for a proposition, a possible situation (this is the situation with respect to which the entire claim is evaluated), then an argument of type  $\langle s \rangle \langle s' \rangle$  (the type of the sister of  $\text{ExcP}_2$  in the LF shown above). It introduces a presupposition and an assertive content. The presupposition is a conjunction of two claims: that the proposition this function takes as its first argument is true in the situation of evaluation and that in every situation where it is true, the quantificational claim is not true (Conditional Leastness). The assertive content is Conditional Domain Subtraction: there is a situation where all propositions in the value of the variable *except* carries not equal to the proposition it takes at its first argument have the same truth value as in the situation of evaluation and where the quantificational claim is true.

Under these assumptions the predicted interpretation for the LF in (105) is shown in (112). As the reader can verify, the presupposition in (112) is the Negative claim conjoined with Conditional Leastness and the at-issue content is Conditional Domain Subtraction.

$$(112) \quad \llbracket (105) \rrbracket^g(s_0)=1 \text{ iff } \exists s[\forall p[(p \neq \lambda s'. \neg \text{Eva came in } s' \ \& \ p \in g(5)) \rightarrow p(s)=p(s_0)] \ \& \\ \forall x[x \text{ is a girl in } s_0 \rightarrow x \text{ came in } s]]$$

$$\llbracket (105) \rrbracket^g(s_0) \text{ is defined only if } \neg \text{Eva came in } s_0 \ \& \\ \forall s[\neg \text{Eva came in } s \rightarrow \neg \forall x[x \text{ is a girl in } s_0 \rightarrow x \text{ came in } s]]$$

As was said here earlier, the presence of negation in the *except*-clause has to be controlled by the meaning because it has to be there if the quantifier *except* operates on is universal (and the generalization is positive)<sup>12</sup> and not be there if the quantifier is negative. In the semantic theory I propose this is forced by Conditional Leastness. Let's consider what happens if the ellipsis site does not contain negation as shown in (113).

$$(113) \ \# \text{Every girl came except Eva } \mathbf{came}.$$

In this case the presupposition generated by the system is as shown in (114). This presupposition will not be satisfied because of the second conjunct (in bold). It is equivalent to (115). The only restriction on the universal quantification over situations in (115) is that those are the situations where Eva came. Regardless of whether Eva is a girl or not, there is a possible situation where every individual came. In that possible situation, it is not going to be the case that there is a girl from  $s_0$  who did not come. Since the second conjunct of the presupposition is not true, the sentence is predicted not to be defined.

$$(114) \quad \llbracket (113) \rrbracket^g(s_0) \text{ is defined only if} \\ \text{Eva came in } s_0 \ \& \ \forall s[\mathbf{\text{Eva came in } s} \rightarrow \neg \forall x[x \text{ is a girl in } s_0 \rightarrow x \text{ came in } s]]$$

$$(115) \ \forall s[\text{Eva came in } s \rightarrow \exists x[x \text{ is a girl in } s_0 \ \& \ \neg x \text{ came in } s]]$$

It is important to note here that the LF given in (105) does not have to be derived by the movement of the exceptive phrase. Another option is for the exceptive phrase to be based-generated in that position. In that case the insertion of the two abstractors over situation variables in the sister of the exceptive phrase is forced by the semantic type of the exceptive phrase (it is looking for an argument of type  $\langle s \langle st \rangle \rangle$ ). Clausal exceptives that originate in a connected position (the position directly adjacent to the quantificational phrase) have to move, possibly covertly, to be interpreted.

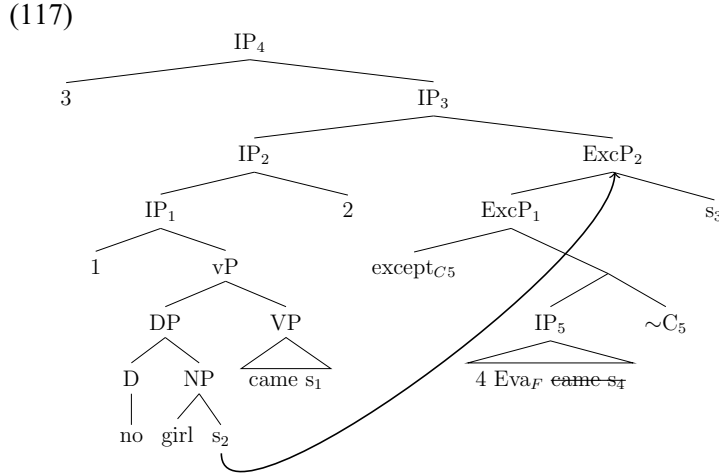
#### 4.4 Negative Quantifiers

This proposal makes the correct prediction about the interaction of *except* with negative quantifiers. The LF for the sentence with a negative quantifier in (116) is given in (117). Following the earlier discussion, ellipsis is resolved positively. The remnant of ellipsis (*Eva*) is focused.

$$(116) \ \text{No girl came except Eva}_F \mathbf{came}.$$

<sup>12</sup> Ellipsis is resolved positively if the generalization is negative even if the quantifier is *every*:

(i) Every girl did not come except Eva  $\mathbf{came}$ .



The denotation of the sister of Exceptive Phrase<sub>2</sub> is shown in (118).

$$(118) \lambda s' \lambda s''. \neg \exists x [x \text{ is a girl in } s' \ \& \ x \text{ came in } s'']$$

The value of the variable  $C_5$  has to be a subset of the focus value of  $IP_5$ : this is the requirement imposed by  $\sim$ . Let's give it the value given in (119).

$$(119) \llbracket C_5 \rrbracket^g = g(5) = \{ \lambda s. \text{Eva came in } s, \lambda s'. \text{Sveta came in } s', \lambda s''. \text{Mary came in } s'', \lambda s'''. \text{Anna came in } s''', \lambda s. \text{Bill came in } s, \lambda s'. \text{John came in } s' \}$$

Given the denotation for the *except*-clause in (111), the predicted interpretation for the entire sentence (116) is in (120). It again has a presuppositional component - the Positive claim and Conditional Leastness and an at-issue component - Conditional Domain Subtraction.

$$(120) \llbracket (117) \rrbracket^g(s_0) = 1 \text{ iff } \exists s [\forall p [(p \neq \lambda s'. \text{Eva came in } s' \ \& \ p \in g(5)) \rightarrow p(s) = p(s_0)] \ \& \neg \exists x [x \text{ is a girl in } s_0 \ \& \ x \text{ came in } s]]$$

$$\llbracket (117) \rrbracket^g(s_0) \text{ is defined only if } \text{Eva came in } s_0 \ \& \ \forall s [\text{Eva came in } s \rightarrow \exists x [x \text{ is a girl in } s_0 \ \& \ x \text{ came in } s]]$$

From the first conjunct in the presuppositional component we know that Eva came in  $s_0$ . The second conjunct is Conditional Leastness. From it, we know that every possible situation in which Eva came has a girl from  $s_0$  who came in that possible situation. This can only be the case if Eva is a girl in  $s_0$ . This captures the containment inference.

From the assertive component we learn that there is a possible situation where all the facts about people other than Eva coming are the same as in  $s_0$  and where no girl from  $s_0$  came. This can only be the case if no girl other than Eva came in  $s_0$ . This correctly captures the domain subtraction inference.

Conditional Leastness is also responsible for the fact that ellipsis has to be resolved positively in this case. Let's consider what happens if the ellipsis is resolved in the wrong way as shown in (121).

$$(121) \# \text{No girl came except Eva}_F \text{ ~~did not come~~.$$

The predicted presupposition cannot be satisfied in that case. This is shown in (122): the second conjunct (bolded) is not true because it is not the case that in every situation where Eva did not come, some girl from  $s_0$  came. There is a possible situation where no girl from  $s_0$  came at all.

$$(122) \llbracket (121) \rrbracket^g(s_0) \text{ is defined only if } \neg \text{Eva came in } s_0 \ \& \ \forall s[\neg \text{Eva came in } s \rightarrow \exists x[x \text{ is a girl in } s_0 \ \& \ x \text{ came in } s]]$$

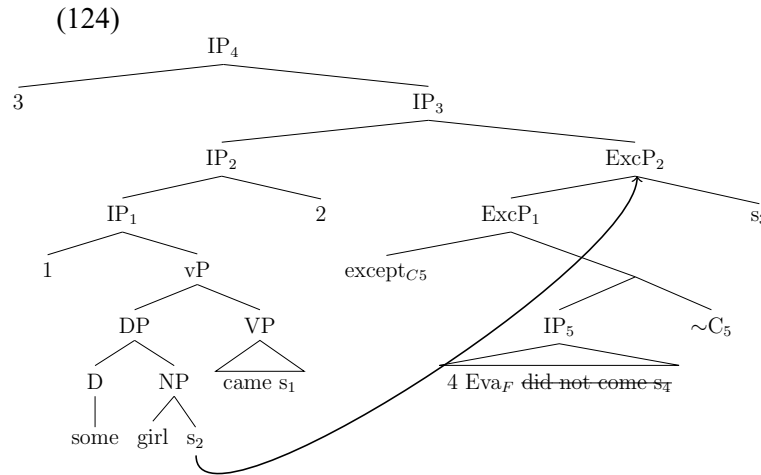
## 4.5 The Distribution Puzzle

### 4.5.1 Existentials

The conditional analysis proposed here offers a solution to the distribution puzzle. However, unlike von Stechow's original proposal, it does not derive in a straightforward way a contradiction if the denotation for *except* given in (111) is applied to a constituent containing an existential quantifier. An additional assumption is required in order to derive the incompatibility of exceptives with existential quantifiers. This assumption is that an existential cannot be used when it is known that the restrictor denotes a singleton set, in other words, when it is known that the conditions for the usage of a definite are met.

Let's consider the ungrammatical example in (123). The LF analogous to the LFs considered above is shown in (124).

(123) \*Some girl came except Eva<sub>F</sub> ~~did not come~~.



The denotation of the sister of the exceptive phrase<sub>2</sub> is given in (125).

$$(125) \lambda s' \lambda s''. \exists x[x \text{ is a girl in } s' \ \& \ x \text{ came in } s'']$$

The value of  $C_5$  has to be restricted by the focus value of  $IP_5$ . Let's give it the value shown in (126).

$$(126) \llbracket C_5 \rrbracket^g = g(5) = \{q: \exists y[q = \lambda s''. \neg y \text{ came in } s'']\}$$

The interpretation that is predicted for this sentence is shown in (127) (the presupposition) and (128) (the assertive content).

(127)Presupposition:  $\llbracket (123) \rrbracket^g(s_0)$  is defined only if

$\neg \text{Eva came in } s_0 \ \& \ \forall s[\neg \text{Eva came in } s \rightarrow \neg \exists x[x \text{ is a girl in } s_0 \ \& \ x \text{ came in } s]]$

(128)Assertion:  $\llbracket (123) \rrbracket^g(s_0) = 1$  iff

$\exists s[\forall p[(p \neq \lambda s'. \neg \text{Eva came in } s' \ \& \ p \in g(5)) \rightarrow p(s) = p(s_0)] \ \& \ \exists x[x \text{ is a girl in } s_0 \ \& \ x \text{ came in } s]]$

The second conjunct of the presupposition (in bold) is Conditional Leastness. It is responsible for the fact that (123) is not a grammatical sentence of English. What we learn from it is that it is either the case that Eva is the only girl in  $s_0$  or that there are no girls in  $s_0$ . The two possible outcomes come from two possible scenarios: where Eva is a girl and where she is not a girl.

Let's first consider the scenario where Eva is not a girl in  $s_0$ . How can the presupposition be true under this assumption? Only if there are no girls at all in  $s_0$  can it be the case that in all situations where a non-girl Eva did not come, no girl from the actual topic situation came. Imagine there is a girl, say Sveta in  $s_0$ . Then there is a possible situation where Eva (non-girl) did not come and where Sveta came. Thus, the simple existence of a girl in  $s_0$  would make Conditional Leastness impossible to satisfy.

This possibility – that there are no girls in the actual topic situation – is, however, not compatible with the assertion in (128) that states that there is a possible situation where some girl from  $s_0$  came. This can only be true if there are girls in  $s_0$ .

Now let's consider a scenario where Eva is a girl. Let's also assume that there are other girls in  $s_0$ , say Sveta and Mary. It cannot be true that in all situations where Eva did not come, there are no girls from  $s_0$  who came. Let's look at situations where Eva did not come. Among them, there are possible situations, where Sveta or Mary (other girls from  $s_0$ ) came, so (127) cannot be true.

If Eva is a girl in  $s_0$ , there is only one way in which Eva's not coming can absolutely guarantee that no girl from  $s_0$  came: it can be the case only if she is the only girl in  $s_0$ . The assertion in (128) does not rule out the possibility that Eva is the only girl in  $s_0$ . There is a possible situation where some girl from  $s_0$  came and all other coming facts are the same as in  $s_0$  – namely, this is a situation where Eva came. Thus, the presupposition in (127) and the assertion in (128) can be true together. This requires Eva being the only girl in  $s_0$ .

Because there is a scenario under which a sentence where *except* operates on an existential is predicted to be defined and true, the conditional semantics for clausal exceptives requires an additional assumption in order to rule out (123). However, the assumption required here has an independent motivation. There is a well-established restriction on the use of an indefinite article (such as *a* and *some*) in a situation where the conditions for the use of a definite article are met, i.e. there is a unique individual in the extension of the predicate denoted by the NP inside an existential DP.

The observation that indefinites come with an anti-uniqueness inference goes back to the work of Hawkins (1978, 1991) and Heim (1991). The sentence in (129) cannot be felicitously uttered if it is known that a person can only have one wife. In the same way, the sentence in (130) comes with an inference that the victim has more than one father. The sentence in (131) is infelicitous because there is only one number in the extension of the predicate denoted by *weight of our tent*.

(129) #Yesterday, I talked to a wife of John's (Alonso-Ovalle, Menéndez-Benito, Schwarz 2011)

(130) #I interviewed a father of the victim. (Hawkins 1991)

(131) #A weight of our tent is under 4 lbs. (Heim 1991)

Heim (1991) proposed to derive this anti-uniqueness inference via the principle known as Maximize Presuppositions.

- (132) Maximize Presuppositions: Among a set of alternatives, use the felicitous sentence with the strongest presupposition. (This formulation is from Chemla 2008)

In a situation where an indefinite competes with another expression that presupposes that there is only one individual that satisfies the predicate in the restrictor of the determiner, namely a definite, and it is in fact known that there is only one such individual, an expression with the maximal presupposition, namely the definite, has to be used.

I propose that the reason why sentences where an exceptive operates on an existential like the one in (123) are perceived as ungrammatical is that they get ill-formed meanings. The use of an existential signals that the speaker does not believe that there is only one object that satisfies the restrictor of the existential. The only other way the presupposition generated by an exceptive can be satisfied is if the restrictor is empty. However, in that case whenever the sentence is defined, it is false. There is no way for it to be true. This problem cannot be fixed by substituting all non-functional elements of a sentence by different lexical items: this problem is predicted to arise whenever a *except* is put together with an existential. Following Gajewski, who proposed that contradictions that cannot be repaired by changing all non-functional elements are perceived as ungrammatical ('L-analyticity and Natural Language', 2002 ms.), I propose that (123) is ungrammatical because of its meaning.

We run into the same issue with numeral indefinites as well. Let's consider the ungrammatical sentence in (133). To put it informally, the analysis predicts that this sentence carries the presupposition that Eva did not come and that in every situation where Eva did not come *two girls came* is not true. Let's imagine that there are three girls in  $s_0$ . Then there is a situation where both of the girls other than Eva came, and thus there are two girls who came and the presupposition is false. If there are less than two girls overall, the presupposition is satisfied, but it is in a conflict with the at-issue meaning. The predicted at-issue meaning is that there is a possible situation where the truth value of every proposition of the shape 'x did not come' where x is not Eva is the same as in  $s_0$  and where it is true that two girls from  $s_0$  came. If there are less than two girls in  $s_0$ , then this cannot be true. Only if there are exactly two girls, can the presupposition and the assertion be true together.

- (133) \*Two girls came except Eva ~~did not come~~.

Again, since the meaning proposed here is well-formed just when the conditions for the use of a definite are met, we will have to appeal to some principle external to the theory to rule (133) out. Specifically, we will appeal to Maximize Presupposition again and say that the sentence is ruled out because the indefinite *two girls* cannot be used in a situation where it is known that there are exactly two girls.

We can construct an example similar to the ones in (129)-(131) illustrating that the same restriction exists for bare numerals. For example, (134) cannot be said in a scenario where it is known that the victim only has two parents.

- (134) #I interviewed two parents of the victim.

#### 4.5.2 Definite Descriptions

I proposed that the reason why exceptives introduced by *except* are not compatible with existential quantifiers is that in those cases the presupposition introduced by the exceptive can only be satisfied and compatible with the assertion if the remnant of the exceptive deletion is the only individual satisfying the restrictor of the indefinite in the topic situation. In this case the use of the existential is blocked by the principle prohibiting using an existential when a definite can be used. However, definites are also



not valid correlates of remnants in exceptive deletion, as illustrated in (135).

(135)\*The girl came except Eva<sub>F</sub> ~~did not come~~.

The components of the meaning predicted by the proposed system for (135) are given in (136) and (137).

(136)Presupposition:  $\llbracket (135) \rrbracket^g(s_0)$  is defined only if  
 $\neg \text{Eva came in } s_0 \ \& \ \forall s[\neg \text{Eva came in } s \rightarrow \neg \iota x[x \text{ is a girl in } s_0] \text{ came in } s]$

(137)Assertion:  $\llbracket (135) \rrbracket^g(s_0) = 1$  iff  
 $\exists s[\forall p[(p \neq \lambda s'. \neg \text{Eva came in } s' \ \& \ p \in \{q: \exists y[q = \lambda s''. \neg y \text{ came in } s'']\}) \rightarrow p(s) = p(s_0)] \ \& \ \iota x[x \text{ is a girl in } s_0] \text{ came in } s]$

The presupposition and the assertion are consistent with each other. From the presupposition we learn that Eva and the girl must refer to the same individual and that she did not come in  $s_0$ . The assertive content is true if there is a possible situation where the girl from  $s_0$  came and all the other facts regarding coming are the same as in  $s_0$ .

There are several problems with (135). The first one is that the presupposition requires that Eva is the girl. However, there is a general prohibition against referring to one and the same individual with a definite description and with a name in the same sentence even if there is no c-command (shown in (138)). (138) improves if *the girl* is used instead of *Eva* (as shown in (139))<sup>13</sup> and becomes grammatical if *she* is used instead of *Eva* (as shown in (140))<sup>14</sup>.

(138)\*Because [the girl]<sub>1</sub> was late, Eva<sub>1</sub> was fired.

(139)?Because [the girl]<sub>1</sub> was late, [the girl]<sub>1</sub> was fired.

(140) Because [the girl]<sub>1</sub> was late, she<sub>1</sub> was fired.

However, (135) does not improve in the same way as shown in (141) and (142). Thus, the restriction observed in (138) cannot be a general solution to the puzzle posed by (135).

(141)\*[The girl]<sub>1</sub> came except [the girl]<sub>1F</sub> ~~did not come~~.

(142)\*[The girl]<sub>1</sub> came except her<sub>1F</sub> ~~did not come~~.

Another factor contributing to the badness of (135), (141) and (142) is that the two clauses in them are not in sufficient contrast for the ellipsis to be licensed (see (Rooth 1992a; Stockwell 2018; Griffiths 2019) on the contrast requirement on ellipsis). This is because the presupposition requires that the *her* and *the girl* in (142) refer to the same individual.

There is also another issue with (135). Even though the presupposition and the at-issue content are consistent with each other, there is a problem with the meaning the system has generated. From the presupposition we learn that  $[\lambda s. \neg \text{Eva came in } s]$  and  $[\lambda s. \neg \iota x[x \text{ is a girl in } s_0] \text{ came in } s]$  are equivalent. The assertion in (137) does not depend on  $s_0$ : it does not matter what the truth values of other propositions of the shape ‘x did not come’ in  $s_0$  are. It only depends on whether  $[\lambda s. \neg \text{Eva came in } s]$  is a necessary truth or not. Let me for now completely ignore the fact that there are necessary truths (they present a more general problem for the account proposed here and will be discussed in the next section). For statements that are not necessary truths, whenever the presupposition is satisfied, the assertive content is true. This sentence is predicted to be a tautology in a way: there is no way for it to be false.

<sup>13</sup> This was pointed out to me by Kyle Johnson.

<sup>14</sup> This was pointed out to me by Kyle Johnson and Keny Chatain.

Again, this problem cannot be fixed by changing the non-functional elements of the sentence. I adopt Gajewski's idea (from his 2002 manuscript 'L-analyticity and Natural Language') that tautologies with this property are perceived as ungrammatical and propose that this explains the badness of all 3 sentences in (135), (141) and (142).

It is also the case that plural definite descriptions are not compatible with *except* (as shown in (143)). Adding *all* before *the girls* makes the sentence grammatical (144).

(143)\*The girls came except Eva<sub>F</sub> ~~did not come~~.

(144) All the girls came except Eva ~~did not come~~.

I propose that the problem with (143) is in the presupposition generated by the system. One of the contributions of *except* is that there is a law-like relationship between the two clauses. In (143) it would be the claim that in every situation where Eva did not come, it is not true that the girls of  $s_0$  came. Now we need to consider what happens when negation is applied to a claim containing a plural definite. One observation that have been made in the literature is that plural definite descriptions come with a homogeneity presupposition (Schwarzschild 1994; Löbner 1987, 2000; Gajewski 2005; Breheny 2005; Büring & Križ 2013; Magri 2014; Križ 2015a,b): applying negation to the claim 'the girls came' gives us 'the girls (all of them) did not come'. The claim that in every situation where Eva did not come, the girls of  $s_0$  (all of them) did not come can be true only if Eva is the only girl in  $s_0$ . Then (143) is predicted to be ill-formed due to the conflict between the plural marking on the noun and the requirement that Eva is the only girl in  $s_0$  introduced by the presupposition. My tentative explanation for the fact that adding *all* makes the sentence grammatical is that *all* removes the homogeneity presupposition from the plural (Löbner 2000, Križ 2015b) and essentially makes the plural definite behave like a universal quantifier with respect to negation.

#### 4.6. Necessary Truths

The conditional analysis of clausal exceptives I have proposed here involves looking at situations where the fact about the event described by the exceptive clause is different than in the actual topic situation. One question arising at this point is what is going to happen if the exceptive clause expresses a necessary truth and there are no situations where the facts described by the exceptive clause are different than in  $s_0$ . Let me illustrate the issue with the example in (146). Intuitively, this sentence is true.

(145) 4, 5, 7, 9

(146) All numbers in (145) are odd except 4 ~~is not odd~~.

The predicted at-issue content for this sentence is shown in (147). The sentence is predicted to be true if there is a possible situation where all facts of the form 'x is not odd' where x is not 4 are the same as in  $s_0$  and where every number in (145) is odd. That can only be the case if there is a possible situation where 4 is odd: there is no other way for the claim *all numbers in (145) in  $s_0$  are odd* to become true in a possible situation.

(147) Assertion:  $\llbracket(146)\rrbracket^g(s_0) = 1$  iff

$\exists s[\forall p[(p \neq \lambda s'. \neg 4 \text{ is odd in } s' \ \& \ p \in \{q: \exists y[q = \lambda s''. \neg y \text{ is odd in } s'']\}) \rightarrow p(s) = p(s_0)] \ \& \ \forall x[x \text{ is number in (145) in } s_0 \rightarrow x \text{ is odd in } s]]$

The problem here is that mathematical truths, like the proposition denoted by *4 is not an odd number*, are generally considered to be necessary truths, in other words, they are considered to be true in every possible situation.

What I think is going on in this case is that our language does not behave as if *4 is not an odd number* is a necessary truth. Evidence for this comes from the conditional paraphrase of (146) given in (148). It is also perceived as true in the situation presented in (145). Under the assumption that mathematical facts are the same in all possible situations, we run into the same problem with the interpretation of conditional sentences. Whatever strategy we use to explain what is going on in (148), we could use to explain (146).

(148) If 4 were an odd number, all numbers in (145) would have been odd.

## 5. The Advantages of the Proposed Analysis

### 5.1 A General Overview

In the previous section I proposed a novel semantic analysis for *except*. This analysis differs from the existing analyses of exceptives in that it is based on the assumption that an exceptive marker introduces a clause and not just a DP. I have shown how this analysis captures the facts that are captured by the classic analysis: the inferences *except* contributes when it applies to a universal and a negative quantifier and the distributional facts. The goal of this section is to show how the proposed analysis captures the cases that are not captured in the classic system.

I will apply my analysis to the three crucial types of cases that were introduced in Section 3. The first one is given in (149). The exceptive phrase here contains a PP with a meaningful preposition.

(149) I met a student from every city in Spain except from Barcelona.

I suggest that the underlying syntactic structure of (149) is as shown in (150). This structure is derived by moving the PP *from Barcelona* from the object DP inside the clause following *except* and eliding the rest of the clause.

(150) I met a student from every city in Spain except [from Barcelona]<sub>F</sub> 1 ~~I did not meet a student~~ <sub>T<sub>+</sub></sub>.

The second case I will consider is the one where an exceptive phrase contains a prepositional phrase that has no correlate (a corresponding antecedent) in the main clause given in (151). I will show how the contrast between the two versions of (151) follows from the analysis I have proposed in a natural way.

(151) I got no presents except #(from) my mom.

I propose that (151) is derived via the movement of the PP from the position inside the object DP in the *except*-clause and deleting the rest of the structure, as shown in (152).

(152) I got no presents except from [my mom]<sub>F</sub> 1 ~~I got a present~~ <sub>T<sub>+</sub></sub>.

I will call this case *sprouting* because a similar phenomenon exists in sluicing where it bears this name (Chung et al. 1995). A parallel example with sluicing is given in (153).

(153) I got a present, but I don't remember from whom.

The ellipsis site in (152) contains an existential quantificational expression *a present*, whereas its corresponding antecedent in the main clause is a negative quantifier *no presents*. There is independent

evidence that such a mismatch is possible in ellipsis. One example of such a mismatch involving VP-ellipsis is given in (154).

(154) I got no presents. But John did ~~get a present~~.

The third case I will consider is a case where an exceptive contains multiple syntactic constituents, like the one in (155).

(155) Every girl danced with every boy everywhere except Eva with Bill in the kitchen.

I suggest that (155) is derived by moving the three phrases to the edge of the clause inside *except*-clause and eliding the rest of the material in the clause as shown in (156).

(156) Every girl danced with every boy everywhere except [Eva<sub>F</sub>] 1 [with Bill<sub>F</sub>] 2 [in the kitchen<sub>F</sub>] 3 ~~t<sub>1</sub>-did not dance t<sub>2</sub>-T<sub>3</sub>~~.

It is worth reminding the reader of the generalization regarding these cases (Moltmann 1995): if an exceptive contains multiple elements, each of those elements has to have a corresponding universal quantifier in the main clause. This is the restriction that we observe in (157) and (158).

(157) \*Every girl danced with some boy except Eva with Bill.

(158) \*Some girl danced with every boy except Eva with Bill.

Another fact that we want to derive is that this is not a general prohibition on the presence of non-universal quantifiers in sentences with multiple remnants as shown by the well-formed example (159), which contains an existential *somewhere*.

(159) Every girl danced with every boy somewhere except Eva with Bill.

One important clarification is due here. All correlates have to be universal quantifiers in the context of the entire sentence (Moltmann 1995). For example, the sentence in (160) is grammatical, even though given standard assumptions, the NPI *any boy* is interpreted as an existential. However, in the context of the entire sentence under the scope of the negative quantifier it gets an interpretation where it is equivalent to a universal quantifier. In (161) and (162) we observe the opposite situation. In the ungrammatical example (161) both quantifiers *no girl* and *every boy* taken in isolation are universal, however, when *every boy* appears under the scope of a negative quantifier its interpretation is equivalent to an existential quantifier. The same problem makes (162) ungrammatical: the lower negative quantifier *no boy* under the scope of another negative quantifier gets the interpretation that is equivalent to an existential quantifier.

(160) No girl danced with any boy except Eva with Bill.

(161) \*No girl danced with every boy except Eva with Bill.

(162) \*No girl danced with no boy except Eva with Bill<sup>15</sup>.

Those are the facts that a theory of clausal exceptives has to capture. In what follows I will show how the theory developed in the previous sections does that in a natural way.

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<sup>15</sup> Some speakers of English find this example grammatical under the interpretation where (162) is equivalent to (160).



The remnant of ellipsis inside the clause following *except* is focused (*Barcelona<sub>F</sub>*). The value of  $C_7$  is restricted by the focus value of  $IP_9$ . The focus value of  $IP_9$  is computed by making a substitution in the position corresponding to Barcelona. Let's give  $C_7$  the value given in (169).

$$(169) \llbracket C_7 \rrbracket^g = g(7) = \\ \{ \lambda s. \neg \exists a[a \text{ is a student in } s \text{ \& I met } a \text{ from Barcelona in } s], \\ \lambda s'. \neg \exists b[b \text{ is a student in } s' \text{ \& I met } b \text{ from Valencia in } s'], \\ \lambda s''. \neg \exists x[x \text{ is a student in } s'' \text{ \& I met } x \text{ from Madrid in } s''], \\ \lambda s'''. \neg \exists y[y \text{ is a student in } s''' \text{ \& I met } y \text{ from Bilbao in } s'''], \\ \lambda s. \neg \exists z[z \text{ is a student in } s \text{ \& I met } z \text{ from Moscow in } s], \\ \lambda s''. \neg \exists c[c \text{ is a student in } s'' \text{ \& I met } c \text{ from New York in } s''] \}$$

The predicted resulting interpretation for the sentence (163) is given in (170) (the presupposition) and (171) (the assertion).

The first conjunct in the presupposition says that I met no student from Barcelona (this captures the negative inference). The second conjunct states that in every situation where I did not meet a student from Barcelona there is a thing that is a city in Spain in  $s_0$  such that I met no student from that city. This can only be the case if Barcelona is a city in Spain. This captures the containment inference.

$$(170) \text{Presupposition: } \llbracket (167) \rrbracket^g(s_0) \text{ is defined only if} \\ \neg \exists b[b \text{ is a student from Barcelona in } s_0 \text{ \& I met } b \text{ in } s_0] \text{ \&} \\ \forall s[\neg \exists z[z \text{ is a student from Barcelona in } s \text{ \& I met } z \text{ in } s] \rightarrow \exists x[x \text{ is a city in Spain in } s_0 \text{ \& } \neg \exists y[y \text{ is a} \\ \text{student from } x \text{ in } s \text{ \& I met } y \text{ in } s]]]$$

The assertion in (171) says that there is a situation where the facts about me meeting a student from places other than Barcelona are the same as in  $s_0$  where I met a student from every city in Spain in  $s_0$ . This captures the intuition that me not meeting a student from Barcelona is the only thing that stands in the way of *I met a student from every city in Spain* being true in  $s_0$ .

$$(171) \text{Assertion: } \llbracket (167) \rrbracket^g(s_0) = 1 \text{ iff} \\ \exists s[\forall p[(p \neq \lambda s'. \neg \exists a[a \text{ is a student from Barcelona in } s' \text{ \& I met } a \text{ in } s']) \text{ \& } p \in g(7)) \rightarrow p(s) = p(s_0)] \text{ \&} \\ \forall x[x \text{ is a city in Spain in } s_0 \rightarrow \exists y[y \text{ is a student from } x \text{ in } s \text{ \& I met } y \text{ in } s]]]$$

To sum up the key findings here, the presupposition predicted by this analysis captures the negative entailment (I met no student from Barcelona) and the containment entailment (Barcelona is a city in Spain). The assertion captures the domain subtraction inference: the sentence is true if I met a student from every city in Spain other than Barcelona.

### 5.3 Sprouting

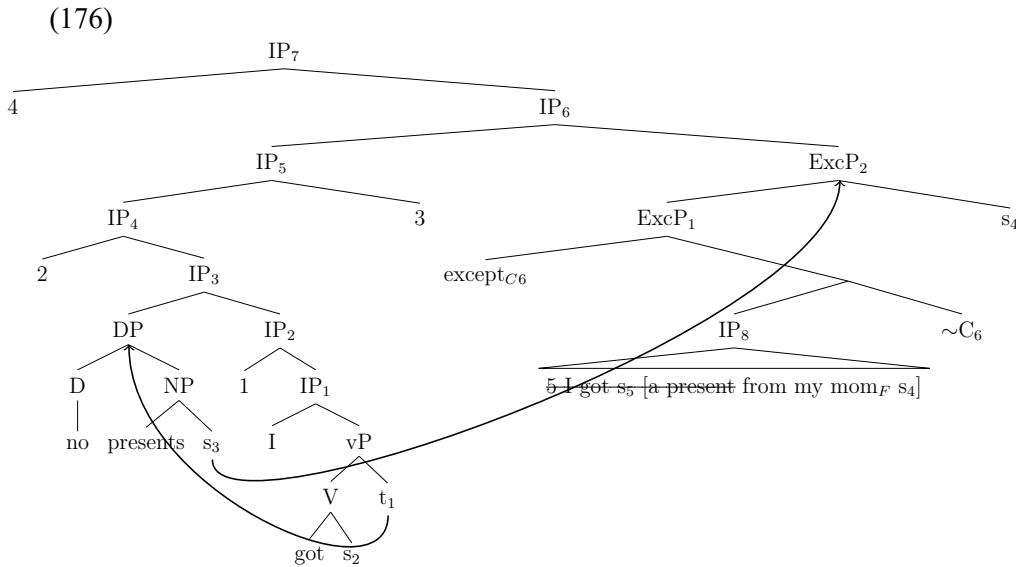
In this section I discuss the case with sprouting repeated here as (172).

$$(172) \text{I got no presents except from my mom } \text{I got a present.}$$

Before going into the details of the analysis of this case, let me list the meaning components of this sentence. (172) comes with the set of inferences in (173)-(175). Given that the quantifier is negative in this case, the exceptive contributes a positive inference. The containment entailment is somewhat uninformative in this case.

- (173) The Positive Entailment: I got a present from my mom.  
 (174) The Containment Entailment: A present from my mom is a present.  
 (175) The Domain Subtraction: I got no presents from people other than my mom.

The LF for (172) is shown in (176). I adopt the standard assumptions about the structure of the main clause. *No presents* undergoes QR, leaves a trace of type  $e$  ( $t_1$ ) that is bound by the abstractor 1. The situation variable of the main predicate *got* ( $s_2$ ) is bound by the abstractor 2. The Exceptive Phrase starts as a sister of the predicate inside the DP (*present*), undergoes extraposition, leaving a trace of type  $s$  ( $s_3$ ), this trace is bound by the abstractor 3. I reconstructed the PP inside the DP inside the *except*-clause.



Under these assumptions, the meaning of the sister of Exceptive Phrase<sub>2</sub> is shown in (177).

$$(177) \lambda s'. \lambda s. \neg \exists x [x \text{ is a present in } s' \ \& \ \text{I got } x \text{ in } s]$$

In the LF in (176) we need to pay attention to the situation variables inside the clause introduced by *except*. This is an IP that contains two predicates: the one denoted by the NP *present from my mom* and the one denoted by *got*. Potentially, there are two possible options for the situation variable inside the NP: it can be bound by the abstractor inside its own clause (5) or it can be bound by the highest abstractor (4) (in this case the predicate will get the transparent evaluation – it will be evaluated with respect to the topic situation  $s_0$ , it will not be bound by the quantifier over situations). In the LF in (176) I have chosen the latter option and I will explain the reasoning behind that choice after I provide the truth-conditions for this sentence.

The predicted presupposition of this sentence is shown in (178). From the first conjunct we learn that I got a present from my mom in  $s_0$ . This captures the positive entailment. The second conjunct is kind of uninformative here: it says that if we look at situations where I got a present from my mom we will find that in all of them there is a thing that is present in  $s_0$  that I got. It is uninformative because the ellipsis site of the *except*-clause contains the predicate *present* – this is also the predicate that is in the restrictor of the quantifier *no presents*.

(178)Presupposition:  $\llbracket (176) \rrbracket^g(s_0)$  is defined only if  
 $\exists z[z \text{ is a present } s_0 \ \& \ \text{I got } z \text{ from my mom in } s_0] \ \& \$   
 $\forall s[\exists x[x \text{ is a present in } s_0 \ \& \ \text{I got } x \text{ from my mom in } s] \rightarrow \exists y[y \text{ is a present in } s_0 \ \& \ \text{I got } y \text{ in } s]]$

The predicted assertion is in (179). The value of  $C_6$  is restricted by the focus value of  $IP_8$  (the sentence inside the exceptive). A possible value for it is given in (180). This means that (179) is the claim that there is a possible situation where propositions denoted by *I got a present from John*, *I got a present from Mary*, *I got a present from Ann* etc have the same truth value as in  $s_0$  and where I got no presents. This gives us the inference that the truth value of no proposition of the shape ‘I got a present from  $x$ ’ where  $x$  is not my mom stands in the way of *I got no presents* being true in  $s_0$ . This captures the domain subtraction inference.

(179)Assertion:  $\llbracket (176) \rrbracket^g(s_0) = 1$  iff  
 $\exists s[\forall p[(p \neq \lambda s'. \exists y[y \text{ is a present in } s_0 \ \& \ \text{I got } y \text{ from my mom in } s'] \ \& \ p \in g(6)) \rightarrow p(s) = p(s_0)] \ \& \ \neg \exists z[z \text{ is a present in } s_0 \ \& \ \text{I got } z \text{ in } s]]$

(180)  $\llbracket C_6 \rrbracket^g = g(6) = \{q: \exists x[q = \lambda s. \exists z[z \text{ is a present in } s_0 \ \& \ \text{I got } z \text{ from } x \text{ in } s]]\}$

Now, let’s go back to the question of why we cared about the situation variables inside the *except*-clause. If both of them (the one on the predicate *get* and the one on the NP *present from my mom*) were bound by the same abstractor 5, then Conditional Leastness would have been as shown in (181), where the variable that has changed is boxed.

(181)  $\forall s[\exists x[x \text{ is a present in } \boxed{s} \ \& \ \text{I got } x \text{ from my mom in } s] \rightarrow \exists y[y \text{ is a present in } s_0 \ \& \ \text{I got } y \text{ in } s]]$

This presupposition is very hard to satisfy. The reason for this is that something can be a present in one situation and not be a present in another. According to (181) every situation that has a thing that is a present in that situation is such that it has a thing that it is a present in  $s_0$ . This condition can only be met by a predicate that does not change its extension from situation to situation. It does not seem likely that the predicate denoted by *presents* has this property. However, we do not need to worry about the derivation that leads to this very strong presupposition. Nothing in the system forces the two situation variables to be the same. What is important is that there is an LF – the one shown in (176) – that leads to the correct interpretation.

The remaining issue I would like to discuss here is why (182) is infelicitous. The explanation for this fact naturally follows from what is independently known about ellipsis.

(182) #I got no presents except my mom.

The way of ellipsis resolution that could lead to the LF equivalent to the one in (176) is shown in (183). In (183) the DP *my mom* moves from the PP inside the ellipsis site and the rest of the structure together with the preposition is deleted. This is not a possible structure because it violates a well-established constraint on ellipsis given in (184).

(183) \*I got no presents except my mom 1 ~~[I got a present from  $t_1$ ]~~

(184) **Chung’s generalization:** A preposition can be stranded in an ellipsis site only if it has an overt correlate in the antecedent. (Chung 1995)



This constraint can be illustrated by the following pair of examples containing sluicing: the well-formed one in (185) where the ellipsis site contains a preposition that has a correlate in the antecedent and the infelicitous one in (186) where the ellipsis site contains a preposition that has no correlate in the antecedent.

- (185) I got a present from someone but I don't remember who ~~I got a present from~~.  
 (186) #I got a present but I don't remember who ~~I got a present from~~.

The idea that Chung's generalization plays a role in ruling out (183) finds further support in the fact that (187) where the PP is present in the antecedent is a grammatical sentence.

- (187) I got no presents from anyone except my mom I ~~[I got a present from t<sub>i</sub>]~~

Given that the possibility of the derivation in (183) is ruled out by Chung's constraint, the two remaining options for ellipsis resolution are given in (188) and (189).

- (188) I got no present except ~~I got~~ my mom.  
 (189) I got no present except my mom ~~got a present~~.

Interpreting (188) will generate the presupposition that is responsible for the funny inference that the sentence comes with – that my mom is a present that I got. It is given in (190): the second conjunct here (bolded) states that every situation where I got my mom has a thing that is a present in  $s_0$  that I got. That can only be true if my mom is a present in  $s_0$ .

- (190) I got my mom in  $s_0$  &  
 $\forall s[\text{I got my mom in } s \rightarrow \exists x[\text{x is a present in } s_0 \text{ \& I got x in } s]]$

Interpreting (189) will generate the presupposition that is impossible to satisfy. It is given in (191). The second conjunct (bolded) can only be true if I am my mom. This is because it states that in every situation my mom got a present, I got a present. It can be true that in every situation where my mom gets a present, I get a present only if me and my mom are the same individual.

- (191)  $\exists z[z \text{ is a present in } s_0 \text{ \& my mom got } z \text{ in } s_0] \text{ \&}$   
 $\forall s[\exists x[\text{x is a present in } s_0 \text{ \& my mom got x in } s] \rightarrow \exists y[\text{y is a present in } s_0 \text{ \& I got y in } s]]$

We have exhausted all possible ways of deriving the meaning of (182) and we have found no way of generating the same meaning as the one the sentence in (172) (repeated below as (192)) has. This explains the contrast between those two sentences.

- (192) I got no presents except from my mom.

## 5.4 Exceptives with Multiple Remnants

### 5.4.1 Every-every

In this section I will show how the conditional system developed here can account for the cases where an *except*-phrase contains multiple remnants.

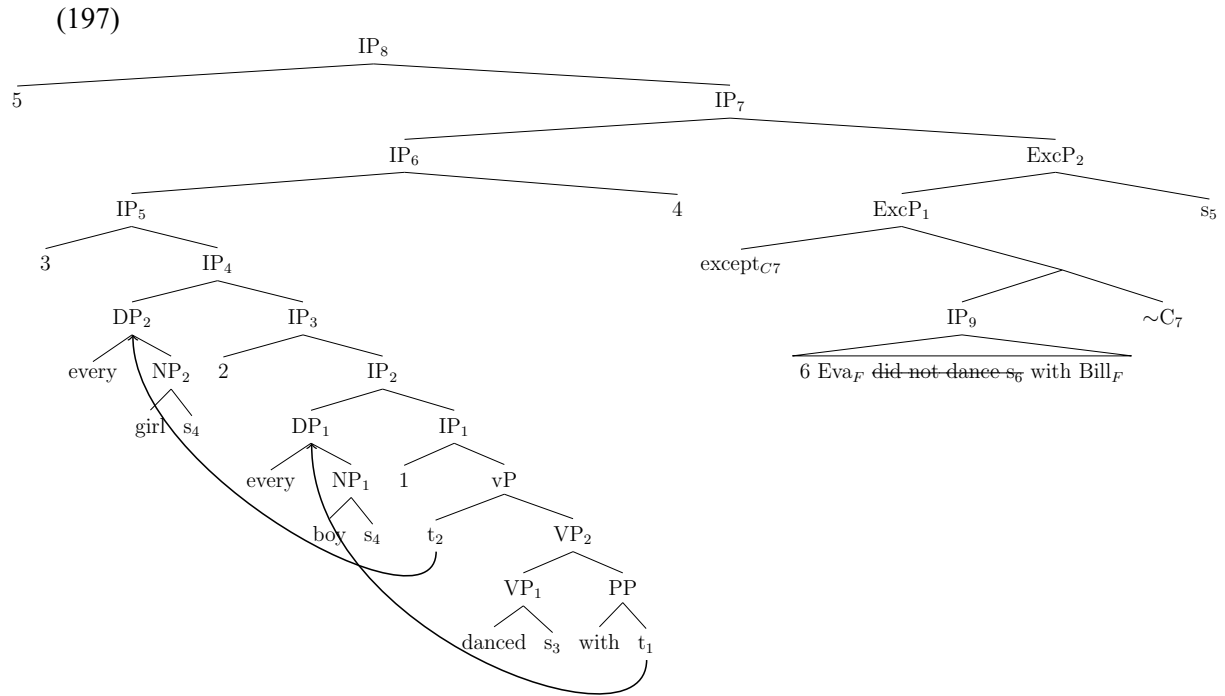
The sentence in (193) comes with the set of inferences shown in (194), (195), and (196).

- (193) Every girl danced with every boy except Eva with Bill ~~did not dance~~.

- (194) The Negative Entailment: Eva did not dance with Bill.  
 (195) The Containment Entailment: Eva is a girl, Bill is a boy.  
 (196) The Domain Subtraction: For every pair of individuals other than Eva-Bill it holds that every girl danced with every boy.

Intuitively, this sentence means that *Eva did not dance with Bill* is the exception to the generalization *every girl danced with every boy*. The analysis I developed specifies what it means for a clause to be the exception to a generalization. Being the exception in this case means that (i) Eva did not dance with Bill; (ii) in every situation where that happened the generalization is not true; (iii) had that not happened, the generalization would have been true. Below I show how this result is derived in a compositional way.

I propose that the sentence in (193) has the LF shown in (197).



Let's focus on the sister of Exceptive Phrase<sub>2</sub>. Following standard assumptions, I QRed both of the DPs *every girl* and *every boy*, left traces and bound them by abstractors (the numerical indices 1 and 2). The situation variable  $s_3$  that comes with the verb *dance* is bound by the abstractor 3.

There is a separate abstractor that binds situation variables inside the DPs. It is crucial here that those two variables are co-indexed and are bound by the same abstractor. If the situation variable in one of the DPs is bound by the same abstractor that binds the main predicate of the sentence, we will derive a presupposition that cannot be satisfied. I will ignore this option for now and go over it at the end of this section. Note that this only holds for situation variables that are inside DPs that are correlates of remnants in an *except*-clause. The system makes no commitments about situation variables inside any other DPs that may be present in a sentence.

I will remain agnostic here about how the *except*-clause gets to the sentence final position. One option is that here like in all previous cases the *except*-clause originates inside a DP. It may be the case that the exceptive clause moves simultaneously from both DPs in the across the board manner. Another

possibility is that it moves from one of the DPs (and it has to be the higher one to avoid a weak crossover violation). The third option is that the *except*-clause in (197) is base-generated.

What is crucial for the proposed analysis is that the *except*-clause is placed above both of the correlates in the main clause. For now, I will simply assume that in cases where an exceptive contains multiple remnants it has to be placed high enough to c-command both of the correlates. In the next subsection, I will show that this assumption is supported by the empirical facts.

Both of the remnants of ellipsis inside the clause following *except* are focused (*Eva*, *Bill*). For simplicity, I reconstructed the DPs inside the *except*-clause to their base-positions in (197).

The predicted denotation for the sister of the exceptive phrase is in (198).

$$(198) \lambda s'. \lambda s''. \forall x[x \text{ is a girl in } s' \rightarrow \forall y[y \text{ is a boy in } s' \rightarrow x \text{ danced with } y \text{ in } s'']]$$

Given the denotation for the exceptive clause proposed here in (111), the predicted meaning of this sentence is shown in (199) (the presupposition) and (200) (the assertion).

We learn from the first conjunct of the presupposition that Eva did not dance with Bill in  $s_0$ . The second conjunct is Conditional Leastness: it requires that every situation where Eva did not dance with Bill, there is a girl from the topic situation and a boy from the topic situation such that the girl did not dance with the boy. This is only possible if Eva is a girl and Bill is a boy in the topic situation<sup>16</sup>.

$$(199) \text{Presupposition: } \llbracket (193) \rrbracket^g(s_0) \text{ is defined only if} \\ \neg \text{Eva danced with Bill in } s_0 \text{ \& } \\ \forall s[\neg \text{Eva danced with Bill in } s \rightarrow \exists x[x \text{ is a girl in } s_0 \text{ \& } \exists y[y \text{ is a boy in } s_0 \text{ \& } \neg x \text{ danced with } y \text{ in } s]]]$$

The predicted at-issue content is that there is a possible situation where facts about dancing are the same as in  $s_0$  for every pair of individuals other than Eva-Bill and where every girl from in  $s_0$  danced with every boy from in  $s_0$ . This means that in  $s_0$ , for every pair of individuals other than Eva-Bill it holds that every girl danced with every boy in  $s_0$ . This is achieved by restricting the domain of quantification over possible situations to those situations where the truth value of each proposition in  $C_7$  other than the one denoted by *Eva did not dance with Bill* is the same as in  $s_0$ . The value of  $C_7$  has to be a subset of the focus value of the clause *Eva<sub>F</sub> did not dance with Bill<sub>F</sub>*. A possible value for  $C_7$  is given in (201).

$$(200) \text{At issue content: } \llbracket (193) \rrbracket^g(s_0) = 1 \text{ iff} \\ \exists s[\forall p[(p \neq \lambda s'. \neg \text{Eva danced with Bill in } s' \text{ \& } p \in g(7)) \rightarrow p(s) = p(s_0)] \text{ \& } \\ \forall x[x \text{ is a girl in } s_0 \rightarrow \forall y[y \text{ is a boy in } s_0 \rightarrow x \text{ danced with } y \text{ in } s]]]$$

$$(201) \llbracket C_7 \rrbracket^g = g(7) = \{q: \exists x \exists y[q = \lambda s. \neg x \text{ danced with } y \text{ in } s]\}$$

Thus, the predicted meaning captures all the inferences the sentence in (193) comes with.

The next issue I will address here is what is going to happen if not all situation variables inside the correlates of the remnants in the *except*-clause are bound by the same abstractor. I said earlier that this structure is ruled out because it will generate a presupposition that cannot be satisfied. The situation I have in mind is the one where the sister of the exceptive phrase has the structure shown (202), where the situation variable that comes with the predicate *girl* is bound by a different abstractor than the one

<sup>16</sup> Following Moltmann (1995), I assume that *dance with* is not a symmetric predicate. The assumption is that there is a possible situation where Eva danced with Bill, but Bill did not dance with Eva (say, he was unconscious, and she just carried him during the dance). The reason why this assumption is required is that otherwise the presupposition can be satisfied if Eva is a boy in  $s_0$  and Bill is a girl in  $s_0$ .

binding the variable that comes with *boy*. The exceptive phrase would combine with the constituent with the denotation given in (203). The presupposition generated by the system for such a structure will be as shown in (204).

(202) [4 [3 [every girl  $s_3$  [2 [every boy  $s_4$  [1 [t<sub>2</sub> danced  $s_3$  with t<sub>1</sub>]]]]]]]

(203)  $\lambda s'. \lambda [s'] . \forall x [x \text{ is a girl in } [s'] \rightarrow \forall y [y \text{ is a boy in } s' \rightarrow x \text{ danced with } y \text{ in } [s']]]$

(204)  $\neg \text{Eva danced with Bill in } s_0 \ \& \ \forall [s] [\neg \text{Eva danced with Bill in } [s] \rightarrow \exists x [x \text{ is a girl in } [s] \ \& \ \exists y [y \text{ is a boy in } s_0 \ \& \ \neg x \text{ danced with } y \text{ in } s]]]$

This presupposition is impossible to satisfy because of the second conjunct (bolded). It requires that Eva is a girl in every situation. Otherwise there is no way it can be true that in every situation where Eva did not dance with Bill there is an individual who is a girl in that situation who did not dance with a boy from the topic situation  $s_0$ . Since it is known that the predicate denoted by *girl* can change its extension from situation to situation, the first conjunct in (204) is not true. Since the first conjunct of the presupposition is not true, the sentence is predicted to not be defined. However, we do not need to worry about this, because there is another LF, namely the one discussed above, that does not lead to this very strong presupposition that Eva is a girl in every possible situation.

#### 5.4.2 The Syntactic Position of an Exceptive with Multiple Remnants

In the analysis of exceptives with multiple remnants I proposed in the previous section, I made an assumption that an exceptive clause has to c-command all correlates of all remnants. In this section I provide the empirical support for the claim in (205).

(205) **Generalization about the Height of an Exceptive with Multiple Remnants:**

If an exceptive phrase contains multiple remnants of exceptive deletion, then this exceptive phrase has to be higher than all of the correlates in the main clause.

Normally, the subject c-commands the *except*-phrase associated with the object and can bind into it, as shown in (206).

(206) Every girl<sub>1</sub> danced with every boy except her<sub>1</sub> brother.

In general, a PP can be extraposed from the main clause and placed after an exceptive with multiple remnants as shown in (207) (*in Jack's kitchen* should not be construed as a part of the exceptive).

(207) Every girl danced with every boy except Eva with Bill [in Jack's kitchen].

Now, let's construct an example that minimally differs from (207), where [in Jack's kitchen] is substituted by [in her kitchen], where *her* is co-indexed with *every girl*. The resulting sentence given in (208) is unacceptable under the intended interpretation, where *every girl* binds the pronoun *her*. (207) is derived from the grammatical example (209) by the extraposition of the locative PP. Given that the extraposition of the PP is by itself acceptable as was shown in (207), the absence of binding in (208) is surprising.

(208) \*Every girl<sub>1</sub> danced with every boy except Eva with Bill [in her<sub>1</sub> kitchen].

(209) Every girl<sub>1</sub> danced with every boy [in her<sub>1</sub> kitchen] except Eva with Bill.

Under the hypothesis that the exceptive clause in (208) is higher than the subject, the unavailability of binding in (208) finds a natural explanation. If an exceptive with multiple remnants has to c-command both of the correlates (the subject and the object of the main clause in this case), then the extraposed PP

[in her<sub>1</sub> kitchen] in (208) has to be even higher than that. This means that the subject will not c-command this PP and the absence of the bound reading is predicted.

Moreover, if an exceptive does not contain multiple remnants and contains only one element, as in (210) where it simply operates on the object DP, the subject can bind into an extraposed PP.

(210) Every girl<sub>1</sub> danced with every boy except Bill [in her<sub>1</sub> kitchen].

In (208) the *except*-clause either has moved rightwards to the position higher than the position of the subject or was merged in that position. Interestingly, extraposition of an *except*-clause in English is obligatory if it contains multiple remnants. This observation goes back to Moltmann (1995) as shown by the contrast between (211) and (212). The ungrammaticality of (211) falls under the generalization in (205): in (211) an exceptive does not c-command all of its remnants.

(211) \*Every girl except Eva with Bill danced with every boy.

(212) Every girl danced with every boy except Eva with Bill.

In this paper I do not offer an explanation for the fact that a reduced exceptive clause with multiple remnants has to c-command in its surface position all of its correlates. Most likely, it has something to do with ellipsis resolution. My preliminary hypothesis is that an exceptive clause with multiple remnants has to c-command all of the correlates in order to establish scope-parallelism between the DPs in the *except*-clause and the DPs in the main clause (see (Fox 1995) about scope-parallelism in ellipsis).

Another option is that an exceptive with multiple remnants moves from both of the DPs in the across the board manner. If it moves from both positions, it must be higher than both of those positions.<sup>17</sup>

### 5.4.3 \*Some-Every

One of the facts that any account of clausal exceptives has to capture is that if an elided exceptive clause contains multiple remnants each remnant has to have a universal quantifier as its associate. There is a contrast between the ungrammatical example in (213) and the grammatical one in (214). This shows that in general, there is no prohibition against existential quantifiers in sentences with exceptive clauses. The contrast we observe here is predicted by the proposed analysis.

(213) \*Some girl danced with every boy except Eva with Bill.

(214) Some girl danced with every boy except with Bill<sup>18</sup>.

Let's assume that (213) is derived from (215).

(215) \*Some girl danced with every boy except Eva with Bill ~~did not dance~~.

Given our assumptions about the meaning of *except*, the predicted presupposition of the sentence in (213) is as shown in (216) and its at-issue content is as shown in (217).

(216) Presupposition:  $\llbracket (213) \rrbracket^g(s_0)$  is defined only if:

¬Eva danced with Bill in  $s_0$  &

$\forall s [\neg \text{Eva danced with Bill in } s \rightarrow$

$\neg \exists x [x \text{ is a girl in } s_0 \ \& \ \forall y [y \text{ is a boy in } s_0 \rightarrow x \text{ danced with } y \text{ in } s]]$

<sup>17</sup> Thanks to Kyle Johnson who made this point to me.

<sup>18</sup> Not all speakers of English find this sentence grammatical. For many speakers the phrasal version of the sentence is preferred (the version without *with*). Most of the speakers who do not accept this example find the example *I met a student from every city in Spain except from Barcelona* acceptable. I do not know what the relevant difference between those two examples is.

(217) At issue content:  $\llbracket (213) \rrbracket^g(s_0) = 1$  iff  
 $\exists s[\forall p[(p \neq \lambda s'. \neg \text{Eva danced with Bill in } s' \ \& \ p \in \{q: \exists a \exists b[q = \lambda s''. \neg a \text{ danced with } b \text{ in } s'']\}) \rightarrow p(s) = p(s_0)] \ \& \ \exists x[x \text{ is a girl in } s_0 \ \& \ \forall y[y \text{ is a boy in } s_0 \rightarrow x \text{ danced with } y \text{ in } s]]]$

The second conjunct of the presupposition in (216) is Conditional Leastness (bolded) and it plays a crucial role in ruling out (213). It is equivalent to (218).

(218)  $\forall s[\neg \text{Eva danced with Bill in } s \rightarrow \forall x[x \text{ is a girl in } s_0 \rightarrow \exists y[y \text{ is a boy in } s_0 \ \& \ \neg x \text{ danced with } y \text{ in } s]]]$

It requires that in every situation where Eva did not dance with Bill, everyone who is a girl in  $s_0$  is such that she did not dance with someone who is a boy in  $s_0$ . That can only be true if Eva is the only girl in the topic situation or there are no girls (and Eva is not a girl).

Let me first discuss the possibility that Eva is a girl in  $s_0$ . Here is why the presupposition cannot be satisfied if there are some girls other than Eva in  $s_0$ . Let's consider a scenario where there is another girl in the topic situation, say Mary. There is a possible situation where Eva did not dance with Bill, but another girl from the topic situation, namely Mary, danced with every boy from  $s_0$ , thus the presupposition is not satisfied.

If, however, there is exactly one girl, then the presupposition given in (216) and the at issue content given in (217) are consistent with each other (they can be true together). Since Eva is the only girl it is entirely possible that in every situation where she did not dance with Bill for every girl there is a boy the girl did not dance with and in every situation where Eva danced with Bill and the rest of the facts regarding dancing are the same as in  $s_0$ , there is a girl who danced with every boy from  $s_0$ . We have already faced this problem earlier, and I suggest that we use the same solution in this case: this interpretation is ruled out by a general semantic constraint against using an existential DP when it is known that the head noun denotes a singleton set.

The only option left is that there are no girls in the topic situation. The presupposition will be satisfied in that case: if there are no girls in  $s_0$ , in every situation there is no girl from  $s_0$  who danced with every boy from  $s_0$ . However, this will contradict the assertion. This is because the assertion says that there is a possible situation where a girl from  $s_0$  danced with every boy from  $s_0$ . Whenever the sentence is defined, it is false. There is no way for it to be true. I propose that this is the reason the sentence is perceived as ungrammatical.

I appealed to the competition between definites and indefinites in order to rule out the ungrammatical *some-every* combination (215). However, substituting *some* with *the* does not improve the sentence, as shown in (219).

(219) \*The girl danced with every boy except Eva with Bill ~~did not dance~~.

The meaning generated by the system for (219) is well-formed. The presupposition is given in (220). Its second conjunct (Conditional Leastness, bolded in (220)) is equivalent to (221). From the presupposition we learn that Eva did not dance with Bill and that Eva is the girl and Bill is a boy.

From the at-issue content given in (222), we learn that there is a possible situation where the girl (Eva) danced with every boy from  $s_0$  while all the propositions of the shape 'a did not dance with b' (where either a is not Eva or b is not Bill) have the same truth value as in  $s_0$ . The sentence is predicted to be true if the girl (Eva) danced with every boy other than Bill.

(220)Presupposition:  $\llbracket (219) \rrbracket^g(s_0)$  is defined only if:  
 $\neg$ Eva danced with Bill in  $s_0$  &  
 $\forall s[\neg$ **Eva danced with Bill in  $s$**  $\rightarrow$   
 $\neg \forall y[y \text{ is a boy in } s_0 \rightarrow \neg \exists x[x \text{ is a girl in } s_0] \text{ danced with } y \text{ in } s]]$

(221)  $\forall s[\neg$ Eva danced with Bill in  $s \rightarrow$   
 $\exists y[y \text{ is a boy in } s_0 \& \neg \exists x[x \text{ is a girl in } s_0] \text{ danced with } y \text{ in } s]]$

(222)At issue content:  $\llbracket (219) \rrbracket^g(s_0) = 1$  iff  
 $\exists s[\forall p[(p \neq \lambda s'. \neg \text{Eva danced with Bill in } s' \& p \in \{q: \exists a \exists b[q = \lambda s''. \neg a \text{ danced with } b \text{ in } s'']\}) \rightarrow$   
 $p(s) = p(s_0)] \& \forall y[y \text{ is a boy in } s_0 \rightarrow \neg \exists x[x \text{ is a girl in } s_0] \text{ danced with } y \text{ in } s]]$

The presupposition and assertion can be true together: it is entirely possible that the girl (Eva) did not dance with a boy (Bill) and danced with every other boy. Moreover, they are independent of each other: the presupposition can be satisfied when the at-issue content is false. The at-issue content is false if the girl (Eva) did not dance with some boy who is not Bill in  $s_0$ . This is entirely compatible with Bill being a boy and Eva not dancing with Bill in  $s_0$  – the requirements introduced by the presupposition. Thus, the situation here is different than the situation in cases where an exceptive contains only one element and its correlate is a definite description that was discussed in Section 4.5.2. (*Definite Descriptions*). I remind the reader that sentences like *the girl came except Eva* are ruled out because they are predicted to be always true when they are defined.

The sentence in (219) can still be ruled out because *the girl* and *Eva* are used to refer to one and the same individual in the same sentence and this is in general is not allowed. However, even if we modify this example in such a way that it does not suffer from this problem (as shown in (223)), a definite description is still not an acceptable correlate of a remnant of exceptive deletion.

(223)\*[The girl]<sub>1</sub> danced with every boy except she<sub>1</sub> with Bill ~~did not dance~~.

I propose that what rules (223) out is the constraint on this type of ellipsis that requires that there is a contrast between the remnants of ellipsis and the correlates in the antecedent. This is illustrated by the contrast between the grammatical sentence in (224) and the ungrammatical one in (225). What separates (224) from (225) is the fact that Mary and Eva do not refer to one and the same individual. I propose that (223) is ungrammatical for the same reason (225) is ungrammatical: the remnants are not in sufficient contrast for this type of ellipsis to be licensed.

(224) Mary danced with John and Eva with Bill.

(225)\*[The girl]<sub>1</sub> danced with John and she<sub>1</sub> with Bill.

This idea is supported by the fact that the full version of (223) is acceptable for those English speakers who accept fully pronounced clauses after *except* in general, as shown in (226).

(226)[The girl]<sub>1</sub> danced with every boy except she<sub>1</sub> did not dance with Bill.

The last question I will discuss here is why the sentence in (227) (repeated from the earlier discussion) where the existential does not have a corresponding remnant in the *except*-clause is predicted to be grammatical by the theory proposed here.

(227) Some girl danced with every boy except with Bill.

This is because the ellipsis is resolved differently in this case. There are two ways the ellipsis can be resolved here. The two possibilities come from the two possible positions of the second quantifier *some girl*. It can be below *every boy* and then the ellipsis site also has an existential, which is shown in (228). It can also be above *every boy* and then the ellipsis site includes its trace, which is shown in (229).

$$(228)_{IP\ 5} [ [_{ExcP2} except_{C7} [ [IP\ 6\ ~~not\ a\ girl\ s_6\ danced\ s_6~~ with Bill_F] \sim C_7] s_5 ] \\ [4\ [3\ [every\ boy\ s_4\ [2\ some\ girl\ s_3\ [1\ [t_1\ danced\ s_3\ with\ t_2] ] ] ] ] ] ]^{19}$$

$$(229)_{IP5} [some\ girl\ s_5\ [4\ [_{ExcP2} except_{C7} [ [IP\ 6\ ~~t_4\ did\ not\ dance\ s_6~~ with Bill_F] \sim C_7] s_5 ] \\ [3\ [2\ [every\ boy\ s_3\ [1\ [t_4\ danced\ s_2\ with\ t_1] ] ] ] ] ] ]$$

The predicted meaning resulting from interpreting the LF in (228), where the ellipsis site contains *a girl*, is given in (230) (the presupposition) and (232) (the assertive content).

The first conjunct of the presupposition in (230) gives us the negative inference: there is no girl who danced with Bill. The second conjunct (bolded) is equivalent to (231): it gives us the inference that Bill is a boy.

$$(230) \text{Presupposition: } \llbracket (228) \rrbracket^g(s_0) \text{ is defined only if:} \\ \neg \exists a[a \text{ is a girl in } s_0 \ \& \ a \text{ danced with Bill in } s_0] \ \& \\ \forall s[\neg \exists x[x \text{ is a girl in } s \ \& \ x \text{ danced with Bill in } s] \rightarrow \\ \neg \forall y[y \text{ is a boy in } s_0 \rightarrow \exists z[z \text{ is a girl in } s \ \& \ z \text{ danced with } y \text{ in } s]]]$$

$$(231) \forall s[\neg \exists x[x \text{ is a girl in } s \ \& \ x \text{ danced with Bill in } s] \rightarrow \exists y[y \text{ is a boy in } s_0 \ \& \ \neg \exists z[z \text{ is a girl in } s \\ \ \& \ z \text{ danced with } y \text{ in } s]]]$$

The at issue content in (232) captures the domain subtraction inference ((232) makes reference to the set of propositions denoted by  $C_7$  (the variable restricted by the focus value of the sentence inside *except*) which is given in (233)). This is a statement that there is a possible situation where the truth values of all propositions of the shape ‘no girl danced with  $x$ ’ where  $x$  is not Bill are the same as in  $s_0$  and where the claim ‘every boy is such that some girl danced with him’ is true. This can only be true if all propositions of the shape ‘no girl danced with  $x$ ’ where  $x$  is a boy who is not Bill are false in  $s_0$ .

$$(232) \text{At issue content: } \llbracket (228) \rrbracket^g(s_0) = 1 \text{ iff:} \\ \exists s[\forall p[(p \neq \lambda s'. \neg \exists z[z \text{ is a girl in } s' \ \& \ z \text{ danced with Bill in } s'] \ \& \ p \in g(7)) \rightarrow p(s) = p(s_0)] \ \& \\ \forall y[y \text{ is a boy in } s_0 \rightarrow \exists a[a \text{ is a girl in } s \ \& \ a \text{ danced with } y \text{ in } s]]]$$

$$(233) g(7) = \{q: \exists x[q = \lambda s'. \neg \exists z[z \text{ is a girl in } s' \ \& \ z \text{ danced with } x \text{ in } s'] ] \}$$

The overall meaning we get here can be presented as a combination of the three claims in (234), (235) and (236). As the reader can verify, this is one of the meanings (227) can get.

(234) The Negative Entailment: No girl danced with Bill.

(235) The Containment Entailment: Bill is a boy.

(236) The Domain Subtraction: For every boy other than Bill it holds that some girl danced with him.

<sup>19</sup> For simplicity I represented the movement of the *except*-clause as a leftward movement in this LF.



The second LF given in (229) is predicted to get the meaning where *some girl* scopes above *every boy* and its exceptive phrase. The predicted meaning is shown in (237). The sentence is predicted to be defined only if there is a girl such that she did not dance with Bill and in every situation where she did not dance with Bill, there is a boy from  $s_0$  who she did not dance with. Thus, Bill has to be a boy in  $s_0$ . The at-issue content says that there is a possible situation where all facts about this same girl dancing with people other than Bill are the same as in  $s_0$  where she danced with every boy. This gives us the domain subtraction inference.

(237)  $\llbracket (229) \rrbracket^s(s_0)=1$  iff  
 $\exists x[x \text{ is a girl in } s_0 \ \& \$   
 $\llbracket \lambda z: \neg z \text{ danced with Bill in } s_0 \ \& \$   
 $\forall s[\neg z \text{ danced with Bill in } s \rightarrow \exists y[y \text{ is a boy in } s_0 \ \& \ \neg z \text{ danced with } y \text{ in } s]] \ .$   
 $\exists s[\forall p[(p \neq \lambda s'. \neg z \text{ danced with Bill in } s' \ \& \ p \in \{q: \exists a[q = \lambda s'. \neg z \text{ danced with } a \text{ in } s']\}) \rightarrow p(s) = p(s_0)] \ \& \$   
 $\forall b[b \text{ is a boy in } s_0 \rightarrow z \text{ danced with } b \text{ in } s] \ ] \ (x) \ ]$

The overall meaning we get here can be presented as a combination of the three claims in (238), (239), and (240). As the reader can verify, this is another meaning that the sentence (227) can get.

There is some girl  $x$  such that:

(238) The Negative Entailment:  $x$  did not dance with Bill.

(239) The Containment: Bill is a boy.

(240) The Domain subtraction:  $x$  danced with every boy other than Bill.

The system developed here explains the ungrammaticality of the *every-some* combination of correlates in (241) in exactly the same way as the ungrammaticality of *some-every* example considered above. To put it informally, the problem is with Conditional Leastness. In this case this will be the claim that in every situation where Eva did not dance with Bill some girl from  $s_0$  danced with no boy from  $s_0$ . This can only hold if Bill is the only boy or there are no boys. The first option is ruled out by a general constraint on the use of an existential when the conditions for the use of a definite are met. The second option is not compatible with the at-issue content – Conditional Domain Subtraction: there is a possible situation where every girl danced with some boy and where all dancing facts other than the fact about Eva and Bill are the same as in the topic situation. Again, the situation is different with (242), where the main clause contains an existential and *except* does not have a remnant corresponding to this quantificational element. The ellipsis can be resolved here as *Eva did not dance with a boy*<sup>20</sup> and this whole phrase is interpreted as an exception to the generalization ‘every girl danced with some boy’. There are three meaning components: Eva did not dance with any boy; in every situation where this happens, there is a girl from the topic situation who did not dance with any boy; the truth value of every other proposition of the form ‘ $x$  did not dance with any boy’ where  $x$  is not Eva in  $s_0$  is compatible with this generalization.

(241) \*Every girl danced with some boy except Eva with Bill ~~did not dance~~.

(242) Every girl danced with some boy except Eva ~~did not dance with a boy~~.

<sup>20</sup> Another derivation where *some boy* scopes over *every girl* and the *except*-clause contains the trace of *some boy* is also possible here. I don’t go over this derivation for space reasons.

#### 5.4.4 No –Any, \*No-Every

As was said above, the restriction on the possible quantifiers observed in cases where an exceptive phrase contains multiple remnants is not about the form of the individual quantifiers, but is about the interpretation – in the context of the entire sentence each correlate of each remnant should contribute a quantifier equivalent to a universal quantifier. This is predicted by the analysis suggested here.

The explanation for this fact lies in the part of the presupposition that I called Conditional Leastness. It states that in every situation where the clause introduced by *except* is true, the quantificational claim is not true. In other words, the quantificational claim is negated. If a quantifier corresponding to a remnant is existential, this negation will turn it into a universal. As a consequence of this, we will always find ourselves in a configuration where a fact about one individual (the remnant) has to guarantee something for all individuals in the restrictor of the quantifier in all situations. This is only possible if this one individual is the only element in the restrictor of the quantifier or if the restrictor is empty. In cases involving existentials discussed so far, the first option was ruled out because it is not possible to use an existential if it is known that there is only one element that satisfies the restrictor of the existential. A similar restriction exists for such natural language quantifiers as *every* and *no*. Pragmatically they cannot be used if it is known that there is only one individual that satisfies the restrictor.

Here, I illustrate how the theory of clausal exceptives proposed in this paper together with the restriction discussed above correctly captures the fact that (243) is grammatical and (244) is ungrammatical.

(243) No girl danced with any boy except Eva with Bill ~~danced~~.

(244) \*No girl danced with every boy except Eva with Bill ~~danced~~.

My assumption about (243) is that it means three things given in (245), (246), (247).

(245) The Positive Entailment: Eva danced with Bill.

(246) The Containment Entailment: Eva is a girl and Bill is a boy.

(247) The Domain Subtraction: For all other pairs of individuals it holds that no girl danced with any girl.

The meaning predicted for (243) is given in (248) (the presupposition) and (249) (the assertion).

(248) Presupposition:  $\llbracket (243) \rrbracket^g(s_0)$  is defined only if:

Eva danced with Bill in  $s_0$  &

$\forall s[\text{Eva danced with Bill in } s \rightarrow \neg \exists x[x \text{ is a girl in } s_0 \ \& \ \exists y[y \text{ is a boy in } s_0 \ \& \ x \text{ danced with } y \text{ in } s]]]$

(249) At issue content:  $\llbracket (243) \rrbracket^g(s_0) = 1$  iff

$\exists s[\forall p[(p \neq \lambda s'. \text{Eva danced with Bill in } s' \ \& \ p \in \{q: \exists a \exists b[q = \lambda s''. a \text{ danced with } b \text{ in } s'']\}) \rightarrow p(s) = p(s_0)]$   
&  $\neg \exists x[x \text{ is a girl in } s_0 \ \& \ \exists y[y \text{ is a boy in } s_0 \ \& \ x \text{ danced with } y \text{ in } s]]]$

The presupposition captures the positive inference that Eva danced with Bill and the containment inference that Eva is a girl and Bill is a boy. The at-issue value captures the domain subtraction inference. It says that in some situation where the dancing facts are the same as in  $s_0$  for all people other than Eva and Bill no girl danced with any boy. As the reader can verify, this correctly captures the meaning this sentence has.

The meaning predicted for the ungrammatical example (244) with the *no-every* combination is given in (250) (the presupposition) and (251) (the assertion).

(250)Presupposition:  $\llbracket (244) \rrbracket^g(s_0)$  is defined only if:

Eva danced with Bill in  $s_0$  &

$\forall s[\text{Eva danced with Bill in } s \rightarrow$

$\neg \exists x[x \text{ is a girl in } s_0 \ \& \ \forall y[y \text{ is a boy in } s_0 \rightarrow x \text{ danced with } y \text{ in } s]]]$

(251)At issue content:  $\llbracket (244) \rrbracket^g(s_0) = 1$  iff

$\exists s[\forall p[(p \neq \lambda s'. \text{Eva danced with Bill in } s' \ \& \ p \in \{q: \exists a \exists b[q = \lambda s''. a \text{ danced with } b \text{ in } s'']\}) \rightarrow p(s) = p(s_0)]$   
 $\& \neg \exists x[x \text{ is a girl in } s_0 \ \& \ \forall y[y \text{ is a boy in } s_0 \rightarrow x \text{ danced with } y \text{ in } s]]]$

The problem is again with the second conjunct of the presupposition (Conditional Leastness, bolded in (250)), given separately in (252) (in a simplified form). It says that every situation in which Eva danced with Bill has a girl from  $s_0$  that danced with all boys in  $s_0$ . This can only be true if Eva is a girl in  $s_0$  and Bill is the only boy or there are no boys in  $s_0$ . This is the only way a fact about Bill can guarantee something for all boys of  $s_0$  in all possible situations.

(252) $\forall s[\text{Eva danced with Bill in } s \rightarrow$

$\exists x[x \text{ is a girl in } s_0 \ \& \ \forall y[y \text{ is a boy in } s_0 \rightarrow x \text{ danced with } y \text{ in } s]]]$

The option of there being no boy in  $s_0$  is not compatible with the at-issue content. It is equivalent to (253). It says that there is a possible situation where every girl from  $s_0$  did not dance with some boy from  $s_0$ . This can only be the case if there are boys in  $s_0$ <sup>21</sup>.

(253)At issue content:  $\llbracket (244) \rrbracket^g(s_0) = 1$  iff

$\exists s[\forall p[(p \neq \lambda s'. \text{Eva danced with Bill in } s' \ \& \ p \in \{q: \exists a \exists b[q = \lambda s''. a \text{ danced with } b \text{ in } s'']\}) \rightarrow p(s) = p(s_0)]$   
 $\rightarrow \forall x[x \text{ is a girl in } s_0 \rightarrow \exists y[y \text{ is a boy in } s_0 \ \& \ \neg x \text{ danced with } y \text{ in } s]]]$

What about the possibility that Bill is the only boy in  $s_0$ ? In order to rule this option out I will appeal to the principle that does not allow the use of *every boy* when it is known that there is only one boy (Partee 1986 p.371). Partee appeals to this principle in her explanation of the fact that *every boy* cannot be type-shifted to type e. This type shifting is predicted to be possible in case there is only one boy. However, she points out in that case the usage of *every boy* is blocked pragmatically. The work of this principle is illustrated in (254): this sentence implies that there is more than one satellite of Earth.

(254)#Every satellite of Earth is yellow.

## 6. Plural and Disjunctive Remnants in Exceptive Clauses

In all of the cases discussed so far, the remnant of ellipsis inside an *except*-clause was an expression referring to a single individual. This is not always the case as evidenced by (255).

(255)Every girl came except Eva and Mary ~~did not come~~.

This sentence comes with the familiar inferences: Eva and Mary did not come (the negative entailment); Eva and Mary are both girls (the containment entailment); every other girl came (the domain subtraction).

<sup>21</sup> (253) would be compatible with there being no boys in  $s_0$  if there were no girls in  $s_0$ . This is because the universal quantification is true if its restrictor is empty. However, the part of the presupposition given in (252) is not compatible with this scenario.

For cases like this one what I have suggested so far is not going to be enough and the analysis has to be modified to take those cases into account. One issue is that the analysis proposed so far does not correctly capture the containment inference in (255). The sentence comes with the inference that both Eva and Mary are girls. Substituting one of those names by a male name results in infelicity, as shown in (256).

(256) #Every girl came except Eva and John ~~did not come~~.

According to the analysis proposed here, the containment inference is captured by Conditional Leastness – the claim that establishes a law-like relation between the clause following *except* and the main clause. In this case this would be the claim that in every situation where Eva and John did not come, it is not true that every girl from  $s_0$  came. This is equivalent to (257), which is true if either Eva or John is a girl. Thus, this version of Conditional Leastness does not capture the fact that John has to be a girl in order for (256) to be well formed.

(257)  $\forall s[\text{Eva and John did not come in } s \rightarrow \exists x[x \text{ is a girl in } s_0 \ \& \ \neg x \text{ came in } s]]$

Conditional Domain Subtraction also should change in order to capture the domain subtraction inference in (255). Conditional Domain Subtraction is the claim that there is a possible situation where all focus alternatives of the clause following *except* other than the original have the same truth value as in  $s_0$  and where the quantificational claim is true. If the set of focus alternatives for the clause following *except* in (255) contains the propositions denoted by *Eva did not come* and *Mary did not come*, both of which are not equal to the proposition that Eva and Mary did not come, then we will evaluate the quantificational claim in situations where the truth value of the original proposition happens to be the same as in  $s_0$  because it depends on the value of those two propositions. This is not the desired result because the quantificational claim is true only in a possible situation where Eva came and Mary came, given that they are girls. In order to capture the domain subtraction here we need to subtract both of the propositions in (258) from the domain of quantification over propositions that restrict the domain of quantification over possible situations. Conditional Leastness should also apply to both of those propositions.

(258)  $\{\lambda s. \neg \text{Eva came in } s, \lambda s'. \neg \text{Mary came in } s'\}$

Let's assume that that the set of focus alternatives for the exceptive clause in (255) ( $[Eva \text{ and } Mary]_F \text{ did not come}$ ) is as shown in (259)<sup>22</sup>. Granted that we have the set of propositions in (258), the meaning of (255) can be captured via the three claims given in (260), (261) and (262).

(259)  $\{\lambda s. \neg \text{Eva came in } s, \lambda s'. \neg \text{Mary came in } s', \lambda s''. \neg \text{Sveta came in } s'', \lambda s'''. \neg \text{Anna came in } s''', \lambda s. \neg \text{Bill came in } s, \lambda s'. \neg \text{John came in } s', \text{ etc...}\}$

(260) The Negative Entailment: Eva and Mary did not come in  $s_0$

(261) The Containment Entailment:  $\forall p[p \in (258) \rightarrow \forall s[p(s)=1 \rightarrow \neg \forall x[x \text{ is a girl in } s_0 \rightarrow x \text{ came in } s]]]$

(262) The Domain Subtraction:  $\exists s[\forall p[(p \in (259) \ \& \ p \notin (258)) \rightarrow p(s)=p(s_0)] \ \& \ \forall x[x \text{ is a girl in } s_0 \rightarrow x \text{ came in } s]]$

Now we need to find a way of going from the proposition  $[Eva \text{ and } Mary]_F \text{ did not come}$  to the two propositions in (258). The property that the two propositions in (258) have that the rest of the propositions in (259) do not have is that they are entailed by the proposition denoted by the original

<sup>22</sup> Nothing would go wrong here if the set of focus alternatives included the propositions where the individual corresponding to the position of the subject of the sentence denoting this proposition is plural. I make this assumption for simplicity of exposition.

sentence *Eva and Mary did not come*. The denotation of *except* has to be modified in such a way that Conditional Leastness and Conditional Domain Subtraction make reference to propositions in the set of focus alternatives for the clause following *except* that are entailed by the original proposition.

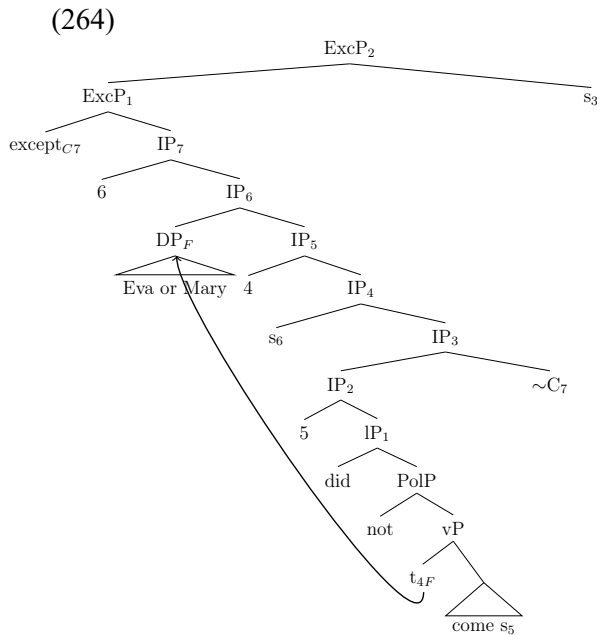
The remnant of ellipsis can also be a disjunctive DP as shown in (263).

(263) Every girl came except Eva or Mary ~~did not come~~.

This sentence has the following meaning components: Eva or Mary did not come (the negative entailment); Eva and Mary are both girls (containment); every other girl came (the domain subtraction). The only difference in meaning between (263) and the sentence with conjunction (255) considered above is in the negative entailment and it is contributed directly by the clause following *except*. Here I will use the same strategy and try to find a way of going from  $[Eva\ or\ Mary]_F\ did\ not\ come$  to the set of propositions in (259) (i.e. the propositions with the individuals in the position corresponding to the subject) and selecting from it the two propositions in (258).

We need to think about how to compute the focus alternatives for the clause following *except* in this case. The disjunctive DP *Eva or Mary* cannot be understood as an expression of type  $e$  (unlike the plural DP *Eva and Mary*). It is standardly assumed that the focus alternatives are formed by substitution of the focused element by elements of the same semantic type. This means that if we compute the focus alternatives in this case, we won't get the set of propositions in (259).

What I would like to use here is the fact that Rooth's system of focus interpretation has a certain flexibility in regard to the position where the focus alternatives are computed. In order to get the focus alternatives of the right shape we could compute them at the position below the position of the disjunctive DP. This is shown in (264), where a part of a possible LF corresponding to the exceptive phrase is given. A structure consisting of  $\sim$  and a silent variable is placed below the disjunctive DP and above its trace  $t_4$ . The trace is an element of type  $e$  and it is focused<sup>23</sup>.



<sup>23</sup> Rooth (1996) discusses some cases where the focus alternatives are computed for a trace of an expression that is marked with a focus.

This means that the value of  $C_7$  will be the set of propositions of the general shape ‘x did not come’ where x is an individual as shown in (265). The variable on the focus sensitive operator *except* is co-indexed with this variable.

$$(265) g(C_7) = \{\lambda s. \neg \text{Eva came in } s, \lambda s'. \neg \text{Mary came in } s', \lambda s''. \neg \text{Sveta came in } s'', \lambda s'''. \neg \text{Anna came in } s''', \lambda s. \neg \text{Bill came in } s, \lambda s'. \neg \text{John came in } s'\}$$

The overall meaning of the sentence in (263) where the remnant of exceptive deletion is the disjunctive DP *Eva or Mary* can be expressed as a combination of the three claims in (266), (267) and (268).

(266) The Negative Entailment: *Eva or Mary* did not come in  $s_0$

(267) The Containment Entailment:  $\forall p[p \in \{\lambda s. \neg \text{Eva came in } s, \lambda s'. \neg \text{Mary came in } s'\} \rightarrow \forall s[p(s)=1 \rightarrow \neg \forall x[x \text{ is a girl in } s_0 \rightarrow x \text{ came in } s]]]$

(268) The Domain Subtraction:  $\exists s[\forall p[(p \in g(7) \ \& \ p \notin \{\lambda s. \neg \text{Eva came in } s, \lambda s'. \neg \text{Mary came in } s'\}) \rightarrow p(s)=p(s_0)] \ \& \ \forall x[x \text{ is a girl in } s_0 \rightarrow x \text{ came in } s]]]$

We again need to use the proposition that is denoted by the sister of *except* to select the propositions in the set  $\{\lambda s. \neg \text{Eva came in } s, \lambda s'. \neg \text{Mary came in } s'\}$ . The sister of *except* has the meaning given in (269). What separates those two propositions from the rest of the propositions in (265) is that they entail the proposition in (269).

$$(269) \llbracket IP_7 \rrbracket^g = \lambda s. \text{Eva or Mary did not come in } s$$

The updated version of *except* that captures the meaning of the examples with conjunction and disjunction is given in (270). The changes are in the second conjunct of the presupposition that is responsible for the containment inference and in the assertive content responsible for the domain subtraction inference. The containment is captured by the following claim: for every proposition in the restrictor set that is not entailed and does not entail the original proposition that *except* takes as its first argument it holds that in every situation where it is true, the quantificational claim is not true. The domain subtraction is captured as follows: there is a situation where all propositions in the restrictor set that are not entailed and do not entail the original proposition have the same truth value as in the situation of evaluation, the quantificational claim is true.

$$(270) \llbracket \text{except}_{Cn} \rrbracket^g = \lambda q_{\langle st \rangle}. \lambda s'. \lambda M_{\langle s \langle st \rangle \rangle} : \\ q(s')=1 \ \& \ \forall p[(p \in g(n) \ \& \ ((q \subseteq p) \vee (p \subseteq q))) \rightarrow \forall s[p(s)=1 \rightarrow \neg M(s')(s)=1]]. \\ \exists s[\forall p[(p \in g(n) \ \& \ q \not\subseteq p \ \& \ p \not\subseteq q) \rightarrow p(s)=p(s')] \ \& \ M(s')(s)=1]$$

Now let me address the question why we do not want to compute the focus alternatives higher in this case. Let’s see what happens if the set of focus alternatives is computed by substituting *Eva or Mary* by elements of the same semantic type ( $\langle \langle et \rangle t \rangle$ ). Under the assumption that proper names can undergo type-shifting to the type  $\langle \langle et \rangle t \rangle$  (Partee 1986), this set will include propositions denoted by *Eva did not come* and *Mary did not come*. Those two entail the original proposition in the *except*-phrase (the proposition that *Eva or Mary* did not come). Therefore, Conditional Leastness will establish a law-like relationship between each of those two propositions and the quantificational claim and by doing so it will give us the inference that *Eva* and *Mary* are girls. However, the set of focus alternatives will also include propositions denoted by *Eva or Anna did not come* and *Mary or Anna did not come*. Those two do not entail that *Eva or Mary* did not come and are not entailed by this proposition. We will run into a problem with Conditional Domain Subtraction: we will have to evaluate the quantificational claim in a situation where the truth values of *Eva or Anna did not come* and *Mary or Anna did not come* are the same as in  $s_0$ . Since we know from the presupposition that *Eva or Mary* did not come, at least one of

those two propositions is true in  $s_0$ . Thus, we will evaluate *every girl came* in a situation where at least of those two propositions is true. We also know from the presupposition that that Eva and Mary are girls. This means that whenever the sentence is defined, it is predicted to be false. This means that we do not want to compute focus alternatives higher in this case.

## 7. *Except* and *possibly*

The additional advantage of the approach proposed here is that it correctly captures the interaction of *except* and modal adverbs such as *possibly*. Moreover, the approach presented here is the first compositional treatment of modal adverbials inside exceptives. The fact that some exceptive constructions can host modal adverbials was observed in (Garcia-Alvarez 2008). An example illustrating the interaction between *except* and *possibly* is given in (271).

(271) Every girl came except, possibly, Eva ~~did not come~~.

The meaning of this sentence has three components given in (272), (273) and (274).

(272) The Negative Entailment: It is possible that Eva did not come.

(273) The Containment Entailment: Eva is a girl.

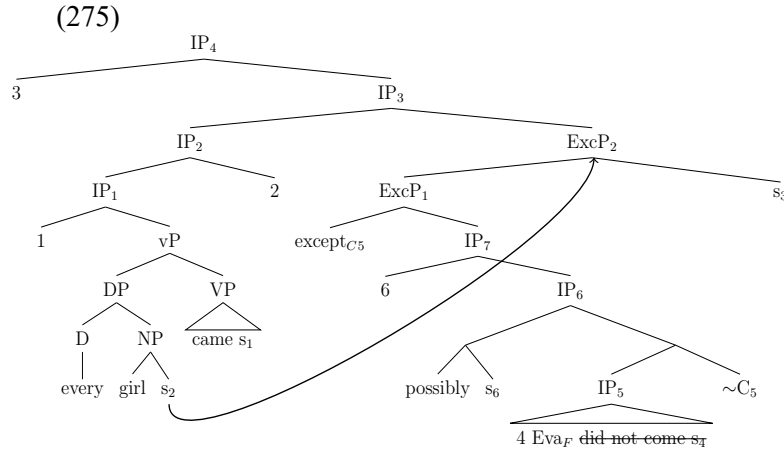
(274) The Domain Subtraction: Every other girl came.

What is crucial here is that *possibly* only affects one aspect of the meaning: namely, the negative entailment (A.Hirsch p.c.). Eva has to be a girl and not ‘possibly’ a girl in order for the sentence to have a well-formed meaning. The sentence is true if every other girl came, a mere possibility of every other girl coming cannot make the sentence true. Those facts are not expected if we try to extend von Fintel’s approach to *but*-exceptives to *except*-exceptives. First of all, according to this approach what follows an exceptive marker is a set and it is not clear how to put a set together with a modal operator. Second of all, the Negative Entailment and Containment both are inferences coming from Leastness, they are not separated as meaning components<sup>24</sup>. According to the approach I propose here, the negative inference is contributed directly by the clause following *except* and the containment is contributed by a separate meaning component. Since those two meaning components are separated, *possibly* can target one of them without targeting the other one.

A possible LF for (271) is given in (275).

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<sup>24</sup> The prediction von Fintel’s approach makes is correct for *but*-exceptives: *but*-exceptives cannot host such modals as *possibly*: \**Every girl came but, possibly, Eva*. This is another fact that supports the idea that *but*-exceptives are not underlyingly clausal.



In this LF I reconstructed the subject below the position of the modal operator in the *except*-clause. The construction consisting of  $\sim$  and a silent variable  $C_5$  is placed below *possibly*. The variable restricting the value of *except* is co-indexed with this variable. The sister of *except* has the value shown in (276). The value of  $C_5$  is computed below *possibly*:  $\sim$  requires that its value is restricted by the focus value of the sister of  $\sim C_5$ . One possible value for this variable that satisfies this condition is given in (277).

$$(276) \llbracket IP_7 \rrbracket^g = \lambda s. \exists s' [s' \text{ is epistemically accessible from } s \rightarrow \neg \text{Eva came in } s']$$

$$(277) \llbracket C_5 \rrbracket^g = g(5) = \{ \lambda s. \neg \text{Eva came in } s, \lambda s'. \neg \text{Sveta came in } s', \lambda s''. \neg \text{Mary came in } s'', \lambda s'''. \neg \text{Anna came in } s''', \lambda s. \neg \text{Bill came in } s, \lambda s'. \neg \text{John came in } s' \}$$

Conditional Leastness and Conditional Domain Subtraction both make reference to the propositions in  $C_5$  that are entailed or entail the original proposition in the sister of *except*. What are the propositions in (277) that are entailed by (276) or entail it?

The proposition denoted by *Eva, possibly, did not come* does not entail any of the proposition in (277). But there is a proposition in this set, specifically, the proposition denoted by *Eva did not come* ( $\llbracket \lambda s. \neg \text{Eva came in } s \rrbracket$ ) that entails this proposition. This is because if *Eva did not come* in  $s_0$ ,  $s_0$  must be such that the epistemic evidence available in  $s_0$  is compatible with *Eva not coming*. In other words: *Eva did not come* entails *it is possible that Eva did not come*.

This means that the predicted meaning for this sentence is as shown in (278) (the presupposition) and (279) (the assertion). The presuppositional contribution of *except* in this case is that the proposition denoted by the clause following *except* is true in  $s_0$  (*Eva, possibly, did not come*) and that for every proposition in  $C_5$  that entails or is entailed by this proposition it holds that in every situation where it is true, the quantificational claim (*every girl came*) is not true. In this case there is only one proposition that satisfies this condition:  $\llbracket \lambda s. \neg \text{Eva came in } s \rrbracket$ . This means that Conditional Leastness can be presented as shown in (278) (the bolded part). This gives us the inference that *Eva* is a girl (the Containment Entailment).

$$(278) \llbracket (275) \rrbracket^g(s_0) = \text{is defined only if} \\ \exists s' [s' \text{ is epistemically accessible from } s_0 \rightarrow \neg \text{Eva came in } s'] \ \& \\ \forall s [\neg \text{Eva came in } s \rightarrow \exists x [x \text{ is a girl in } s_0 \ \& \neg x \text{ came in } s]]$$



The assertive contribution of *except* in this case is that there is a possible situation where all propositions in  $C_5$  that are not entailed and do not entail the original proposition denoted by the clause following *except* have the same truth value as in  $s_0$  and where the quantificational claim is true. Since there is only one proposition that is entailed or entails *Eva, possibly, did not come*, namely, the proposition  $[\lambda s. \neg \text{Eva came in } s]$ , the quantification over possible situations where the quantificational claim is evaluated is restricted to situations where all propositions in (277) other than  $[\lambda s. \neg \text{Eva came in } s]$  have the same truth value as in  $s_0$ . *Possibly* does not have any effect on the at-issue content of this sentence because the value of  $C_5$  is computed below *possibly*. This captures the Domain Subtraction Inference.

$$(279) \llbracket (275) \rrbracket^g(s_0) = 1 \\ \exists s[\forall p[(p \in g(5) \ \& \ p \neq \lambda s'. \neg \text{Eva came in } s') \rightarrow p(s) = p(s_0)] \ \& \ \forall x[x \text{ is a girl in } s_0 \rightarrow x \text{ came in } s]]$$

The last issue I will address here is what happens if  $\sim C_5$  is not placed below *possibly*. In this case the presupposition that will be generated will not be true. This means that the sentence will not be defined. The presupposition predicted for this case is given in (280). The problem is with the second conjunct (given in bold). It is not true that in every situation where it is possible that Eva did not come, there is a girl who did not come. In some situations where it is possible that Eva did not come, every girl came even if Eva is a girl. For this reason, this reading is not available.

$$(280) \exists s'[s' \text{ is epistemically accessible from } s_0 \rightarrow \neg \text{Eva came in } s'] \ \& \\ \forall s[\exists s'[s' \text{ is epistemically accessible from } s \rightarrow \neg \text{Eva came in } s'] \rightarrow \\ \exists x[x \text{ is a girl in } s_0 \ \& \ \neg x \text{ came in } s]]$$

## 8. Conclusions

In this paper I have argued that English exceptive introduced by *except* involve ellipsis. I have empirically established some of the properties of exceptive deletion in English, namely that this kind of ellipsis allows for a polarity mismatch between the antecedent and the ellipsis site.

I have proposed a novel conditional semantic analysis for clausal exceptives. The analysis is conditional in the sense that there is quantification over possible situations and exceptive clauses restrict the domain of this quantification. I have shown how this analysis derives the inferences that exceptives come with as well as their distribution. I have shown how the analysis proposed here explains the cases that the phrasal analysis cannot capture: cases where a remnant is a PP with a meaningful preposition, sprouting cases and multiple remnant cases. I proposed that an exceptive introduces an exception to a claim expressing a generalization and I suggested a specific way of thinking about what ‘being an exception’ means. It has 3 components. A claim X is an exception to a generalization Y if (i) X happened; (ii) in every situation where X happened Y is not true; (iii) had X not happened, Y would have been true. I have also proposed the first compositional treatment of modal operators (such as *possibly*) inside exceptive constructions.

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