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Compositional analysis for clausal exceptives*

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Abstract In this paper I argue that English exceptive constructions introduced by *except* that appear to have a phrasal structure can be underlyingly clausal. I offer a compositional analysis for such exceptive constructions. I propose that an *except*-clause introduces quantification over possible situations and provides the restriction for this quantification. I show how this analysis derives the inferences exceptives come with and the known restrictions on their use.

Keywords: clausal exceptives, semantics of exceptives, exceptive deletion, ellipsis in exceptives

1 Introduction

In this paper I discuss English exceptive constructions introduced by *except* like the one given in (1). I argue that (1) can be derived from (2) by ellipsis and I propose a semantic theory that relates the main clause containing universal quantification over girls and the *except*-clause in such a way that the inferences that (1) comes with are predicted and the known restrictions on the use of exceptives are derived.

(1) Every girl was there except Eva.

(2) Every girl was there except Eva was not there.

The existing literature on exceptives has established that when they operate on universal quantifiers like in (1) they contribute the inferences provided in (3), (4), (5) (Keenan & Stavi 1986; Hoeksema 1987; von Fintel 1993, 1994).

(3) *The Domain Subtraction:* Every girl who is not Eva was there.

(4) *The Containment Entailment:* Eva is a girl.

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(5) *The Negative Entailment:* Eva was not there.

The domain subtraction is the inference that if Eva is removed from the domain of the quantifier, the quantificational claim is true. The containment inference is that the individual introduced by *except* is contained in the restrictor. The negative inference is that the main predicate does not hold of this individual. Another known fact is that exceptives are not compatible with existential quantifiers (Horn 1989; von Fintel 1993, 1994).

(6) *The Distribution Puzzle:* # Some girl was there except Eva.

The existing semantic theories of exceptives are based on the assumption that an exceptive introduces a DP that is interpreted as a set (Hoeksema 1987, 1995; von Fintel 1993, 1994; Moltmann 1995; Gajewski 2008) or an atomic or plural individual (Hirsch 2016). Thus, the element an exceptive introduces can be put together with a predicate in the restrictor in a direct way. If in (1) *except* introduces a set containing just Eva, it can be directly subtracted from the set of girls in the restrictor of the quantifier. The inferences that Eva is a girl and that she was not there can be captured if we adopt von Fintel's (1994) idea that an exceptive also states that if the subtraction does not happen the quantificational claim is not true. If it is true that every girl who is not Eva was there, but it is not true that every girl was there, those two inferences follow naturally.

It has been argued in the recent literature that this picture is not right at least for some exceptives. Perez-Jimenez and Moreno-Quiben (2012) argue that Spanish exceptives can host reduced clauses. Soltan (2016) makes the same point about Egyptian Arabic and Potsdam (2018) about Malagasy. In this paper, I argue that sometimes what follows English *except* can only be understood as a remnant of a clause.

English *except* can be followed by a PP as in (7) or by multiple syntactic constituents as in (8) (this example is from (Moltmann 1995)). In (7) the preposition inside *except* makes a contribution to the overall meaning of the sentence[1]. For cases like (8) ellipsis seems like the only option as the syntactic elements inside *except* do not form a constituent.

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

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

I argue that when exceptives host PPs the traditional approaches to their semantics do not work. It is generally assumed that PPs denote sets of individuals. However,

1 An example structurally similar to (7) was discussed by Potsdam & Polinsky (2019) independently, who also argued that exceptives introduced by *except* can be underlingly clausal.

often a PP following *except* does not denote a set that can be used to restrict the domain of a quantifier in the right way. In (9), the PP *from Barcelona* introduces a set of things that are from Barcelona. However this is not a useful set because things that are from Barcelona are not cities. Subtracting this set from the set of cities in Spain will give us the same set, as shown in (10), thus, the domain of the quantifier will not be restricted in the relevant way. For the same reason we cannot conjoin the quantificational claim with domain subtraction and the statement that if the subtraction does not happen, the quantificational claim is not true in order to derive the inferences that Barcelona is a city in Spain and that I did not meet any student from that city. We also cannot directly say that Barcelona is a city in Spain, because *except* does not have access to a constituent that refers to Barcelona.

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

(10) {x: x is a city in Spain}-{y: y is from Barcelona}={x: x is a city in Spain}

However, the inferences associated with exceptives are present in this case as well. The sentence is true if I met a student from every city in Spain other than Barcelona. The containment entailment is there too: Barcelona has to be a city in Spain, as shown by the infelicity of (11). The negative inference that I did not meet a student from Barcelona is present in (9) as well. Examples like (9) show us that semantically *except* is not looking for a set of individuals.

(11) # I met a student from every city in Spain except from New York.

2 Underlying structure of reduced exceptives

I propose that the underlying structure of an *except*-clause operating on a positive universal statement is as shown in (12) and the structure of an *except*-clause operating on a negative statement is as shown in (13) (where the crossed-out part corresponds to the elided material). As the reader can notice, there is negation in the ellipsis site in (12) and there is no negation in the ellipsis site in (13).

(12) Every girl was there except Eva ~~was not there~~.

(13) No girl was there except Eva ~~was there~~.

I use NPIs as a diagnostic for the presence or absence of negation in the ellipsis site. There is a contrast between (14) and (15). This contrast is not predicted by any existing semantic theory of exceptives[2] .

2 Moreover, not all exceptive constructions in English behave this way. For example, exceptives introduced by *but* do not show a similar contrast with respect to NPI licensing between cases when they operate on a universal quantifier (**John danced with everyone but any girls from his class*) and when they operate on a negative quantifier (**John danced with no one but any girls from his class.*) They also cannot host anything larger than DPs (**John danced with no one but with Eva*).

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

(15) * John danced with no one except with any girls from his class.

This contrast follows in a straightforward way if my assumptions about how the ellipsis is resolved in the two cases are correct. The underlying structure of (14) is as shown in (16) and the underlying structure of (15) is as shown in (17).

(16) John danced with everyone except [~~John did not dance~~ with any girls from his class].

(17) * John danced with no one except [~~John danced~~ with any girls from his class.]

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)). I adopt here the constituent-based approach to NPI licensing (Chierchia 2004; Gajewski 2005; Homer 2011), according to which an NPI is licensed if there is a syntactic constituent containing that NPI which constitutes a downward entailing environment. For example, if we consider the entire sentence (18) the NPI *anyone from his class* is not in a downward entailing environment, because two negations cancel each other out. However, the NPI is licensed here because there is a syntactic constituent that is a downward entailing environment for that NPI, namely the embedded clause in brackets. In a similar way, there is such a constituent, namely, the phrase in brackets, in (16), but not in (17).

(18) I don't think that [John did not dance with anyone from his class].

It is crucial to point out here that if we consider the entire sentence (14) the NPI is not in DE environment. The claim with a larger exception in (19) does entail the the claim with a smaller exception in (20). The problem is with what happens with the domain of quantification when we go from (19) to (20): it gets larger. Let's consider a scenario where one of the girls in John's class has black hair. The domain of quantification in (19) does not include her (he danced with everyone who is not a girl in his class). The domain of quantification in (20) includes her: he danced with everyone who is not a blond girl from his class, thus, he danced with her. A universal claim restricted to a certain set does not grant the inference that the claim where that set was substituted by its superset is true.

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

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

It has been argued in (von Fintel 1999) that what is relevant for NPI licensing is a Strawson DE environment and not just a DE environment[3]. 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.

However the NPI in (14) is not in a Strawson DE environment. The only way the NPI could be in such an environment in (14) is if the quantificational claim were presupposed and the negative claim were the only at-issue contribution of *except*. In that case we could say that (19) Strawson entails (20): the claim that John did not dance with girls from his class does entail that John did not dance with blond girls from his class. The problem is that the quantificational claim is not contributed at the presuppositional level. This is shown by the question test in (21). When it is pronounced with a neutral intonation it is understood as a question about whether John danced with everyone who is not a girl from his class.

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

To conclude, we don't want to create a semantics for *except* that would predict that the NPI in (14) is in a downward or Strawson downward entailing environment globally. The remaining option is that the NPI is licensed locally.

The next question I address here is how it is possible that a positive sentence serves an antecedent for ellipsis of a constituent containing negation. Rudin (2019), following Kroll (2016), reports that polarity mismatches of this kind are allowed in sluicing. This is illustrated in (22). As Rudin points out, not all English speakers find this sentence completely acceptable.

(22) Do this or explain why ~~you did not do this~~. (Kroll 2016)

However, there are other completely acceptable cases where a polarity mismatch is allowed in ellipsis. One example from Russian is given in (23). The n-word that we see in (23) requires the presence of a clause-mate negation, as the contrast between the two versions of (24) shows (Brown 1999; Pereltsvaig 2002). The presence of an n-word in (23) signals that there is a polarity mismatch between the antecedent and the ellipsis site and makes it possible to reduce the constituent containing negation.

3 This notion was introduced by von Fintel (1999) in order to account for the NPI licensing pattern in sentences like *Only John read any books*. The fact that the NPI *any books* is licensed here is surprising because it is not in a DE environment: *Only John read books* does not entail *Only John read 'War and Peace'*. From the fact that only John read books we cannot conclude that he read 'War and Peace'. However, it is generally assumed that *only* presupposes that its prejacent (the statement without *only*) is true and does not assert it (Horn 1992, 1996; Atlas 1993). If we limit ourselves to looking at the worlds where the presupposition of the second sentence is satisfied, the entailment does hold: if we know that no one other than John read books and we know that John read 'War and Peace', we can conclude that only John read 'War and Peace'. This calls for a new generalization about NPI licensing: NPIs are licensed in Strawson downward entailing environments.

In a similar way, I propose that *except* in (16) signals that a polarity mismatch is possible and licenses deletion of the constituent containing negation.

(23) Vanya prines tri knigi, a ja ni odnoj.
Vanya brought three books, and I N-word one
'Vanya brought three books and I did not bring any.'

(24) Ja *(ne) prines ni odnoj knigi.
I *(not) brought N-word one book
'I did not bring any books.'

3 The semantic relationship between a quantificational clause and an exceptive clause

Given what we have established about the underlying structure of *except*-clauses, in (12), repeated below as (25), *except* needs to relate the two clauses in (26) and (27) in such a way that the inferences and the distributional facts discussed in the beginning of this paper are captured.

(25) Every girl was there except Eva ~~was not there~~.

(26) The quantificational claim: Every girl was there.

(27) The clause introduced by *except*: Eva was not there.

Speaking informally, I propose that the *except*-clause in (25) contributes three things. First, it states that the clause in (27) is true in the situation of evaluation. This captures the negative inference. Second, it states that there is a law-like relationship between (26) and (27). It is expressed via universal quantification over possible situations: in every situation where Eva was not there, the quantificational claim in (26) is not true. This achieves three things. It gives us the inference that Eva is a girl. It controls the ellipsis resolution and ensures that the ellipsis is resolved with the right polarity. It gives us the solution for the distribution puzzle too: it ensures that if the quantification claim is existential, the result of putting it together with *except* is not well-formed. The last contribution of *except* is that it states that had (27) been false, (26) would have been true. This captures the domain subtraction inference.

Now, before I show how to get this result compositionally, I will express those three claims formally. Let's assume that s_0 is the topic situation, the situation with respect to which the quantificational claim is evaluated. The contribution of *except* that captures the negative inference is expressed as (28).

(28) $\neg$Eva was there in s_0

The second contribution of *except* is as shown in (29), which is logically equivalent to (30).

(29) $\forall s[\neg$Eva was there in s $\rightarrow \neg\forall x[$x is a girl in $\boxed{s_0} \rightarrow$ x was there in s$]]$

(30) $\forall s[\neg$Eva was there in s $\rightarrow \exists x[$x is a girl in $\boxed{s_0}$ & $\neg$x was there in s$]]$

This is the claim that establishes a law-like relationship between the two clauses. The key ingredient here is the fact that the situation with respect to which the predicate *girl* is evaluated is s_0, so its extension remains constant across possible situations. This is done because a person can be a girl in one possible situation and not be a girl in another situation. We are trying to capture the inference that Eva is a girl in the topic situation s_0, we do not care about her gender and age in other possible situations. (30) can only be true if Eva is a girl in s_0. This is because the universal quantification over situations is only restricted to situations where Eva was not there. What we know about those situations is that in every one of them there is an individual who is a girl in s_0 who was not there. This can only be Eva.

Let's consider what happens if we substitute the female name *Eva* by a clearly male name, such as *John*, as shown in (31). (31) is not true: there is a possible situation, where every individual who is a girl in s_0 was there. In that situation, there is no individual who is a girl in s_0 who was not there. One important thing to note here is that (31) is not going to be true in a scenario where John has a girlfriend who always follows him and if he is not there, she is not there in s_0. This is because the quantification over situations is not restricted to situations that are most similar to the actual topic situation. The quantification is simply over all situations where John was not there. In some of them this girlfriend of John's was there in others she was not. (31) can only be true if John is a girl in s_0.

(31) $\forall s[\neg$John was there in s$\rightarrow \exists x[$x is a girl in s_0 & $\neg$x was there in s$]]$

I have shown how the claim in (29) captures the containment inference. As was said earlier, this aspect of meaning is also responsible for the polarity in ellipsis resolution and for the fact that *except* is not compatible with existential quantifiers. This is discussed in detail later in the paper after I show how the *except*-clause and the quantificational claim are put together in a compositional manner.

The next step is to express the domain subtraction in terms of quantification over possible situations. What we want to capture is shown in (32). However, we cannot do this directly, because we do not have access to the constituent that refers to Eva.

(32) $\forall x[($x is a girl in s_0 & x is not Eva$)\rightarrow$ x was there in $s_0]$

I propose that we can express (32) in terms of quantification over possible situations. As a first approximation, let's look at (33).

(33) $\exists s[$facts in s about individuals other than Eva being there are the same as in s_0 & $\forall x[$x is a girl in $s_0 \rightarrow$ x was there in s$]]$

This says that there is a possible situation where the facts about people other than Eva being there are the same as in s_0 and where everyone who is a girl in s_0 was there. This is only possible if every person who is a girl in s_0 and is not Eva was there in s_0. It is worth pointing out that the predicate *girl* is again evaluated with respect to the actual topic situation in s_0. This is done because the extension of this predicate can vary with different possible situations, but we only care about people who are girls in s_0.

The question is how to get the relevant restriction for the quantification over possible situation ('facts about individuals other than Eva being there') when all we have is the sentence *Eva was not there*. I propose that we can use the fact that it is standardly assumed that a remnant of ellipsis is marked with focus. The remnant of ellipsis is *Eva*. Thus, we have access not only to the clause itself, but also to the set of its focus alternatives. Following (Rooth 1985), I assume that focus alternatives are computed by making a substitution in the position corresponding to the focused phrase.

Under a simplifying assumption that the only individuals in the world are Eva, Anna, Ivy, Mary and John, the set of focus alternatives for *Eva*$_F$ *was not there* not equal to the original proposition is as shown in (34).

(34) {λs'. Anna was not there in s', λs". Ivy was not there in s", λs"'. Mary was not there in s"', λs. John was not there in s}

The quantification over situation can be restricted to the situations shown in (35).

(35) $\lambda s.\forall p[p\in(34)\rightarrow p(s_0)=p(s)]$

If Anna was there in s_0, the set in (35) picks the situations where she was there: [λs'. Anna was not there in s'] (s_0)=0, thus (35) picks the situations where it is false that Anna was not there, therefore we are looking at the situations where Anna was there. Thus, we can express (33) more formally as (36)[4].

(36) $\exists s[\forall p[(p\neq[\lambda s'.\neg$Eva was there in s'] & $p\in[\![$*Eva*$_F$ *was not there*$]\!]^{g,F})\rightarrow$ $p(s)=p(s_0)]$ & $\forall x[x$ is a girl in $s_0 \rightarrow x$ was there in s]]

The claim in (36) can only be true if all the girls who are not Eva were there in s_0. (36) says that there is a possible situation s where every individual who is a girl in s_0 was there in s. It also says that in that situation the 'not being there' facts for the people other than Eva are the same as in s_0. Consequently, this can only be true if every girl other than Eva was there in s_0. To conclude, this claim captures the domain subtraction inference we aim to capture here.

4 The superscript F ($[\![\,]\!]^F$) means the the focus value is computed.

In this work I treat the domain subtraction as the only at-issue contribution of *except*. I will assume that the parts of the meaning that are responsible for the containment inference and the negative inference are contributed at the presuppositional level. The containment inference is definitely not contributed at the at-issue level. For example, the question in (37) cannot be interpreted as a question about Eva being or not being a girl as confirmed by the infelicity of the answer in (37).

(37) A: Was there every girl except Eva?
B: # No, Eva is not a girl.

The facts about the negative inference are less clear. The answer in (38) is felicitous if the question in (37) is asked with an emphasis on *except*. It is possible that this signals that the question is asked metalinguistically. I will treat the negative inference as another presuppositional component contributed by *except*. The reason behind this choice is that it is possible to conjoin the claim that expresses the negative inference of a sentence with *except* and a quantificational claim with *except* as shown in (39). If *Eva was not there* were contributed at the at-issue level in (39), (39) would have been as bad as (40).

(38) B: No, Eva was there too.

(39) Eva was not there, but every girl except Eva was there.

(40) # Eva was not there, but every other girl was there and Eva was not there.

4 The compositional analysis

4.1 Universal quantifiers

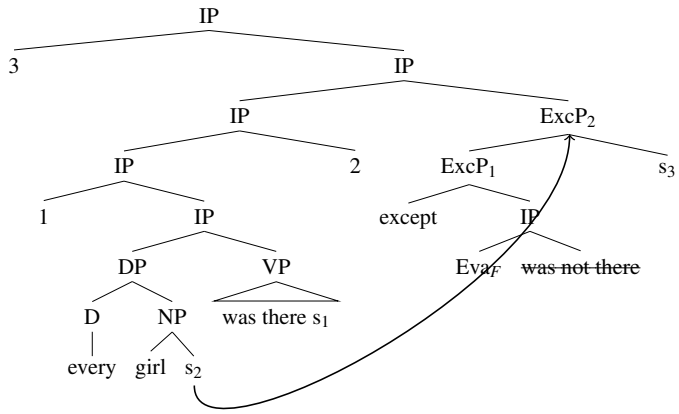
In this section I show how the meaning discussed in the previous section is derived compositionally. I implement these ideas in the system where variables over situations are introduced in the syntax along with binders of those variables (Percus 2000; Kratzer 2019; Keshet 2008; Schwarz 2009, 2012). I assume that situations are parts of possible worlds (Kratzer 1989, 2002; Schwarz 2009; Kratzer 2019). Nothing said here requires possible situations as opposed to possible worlds.

The LF I propose for (25) is given in (41). In this LF *except*-clause undergoes quantifier raising.[5] It leaves a trace of type s (s_2). A binder for this trace 2 is merged in the syntax. This binder is merged above the binder 1 that binds the situation

5 This structure does not have to be derived by movement. Another possibility is that it is base-generated. The reason I derive it with movement here is that I don't want to a priori assume that when *except* appears in a connected position (the position directly following a quantificational phrase) it is non-elliptical. If there are exceptives that appear in connected positions on the surface and are clausal I propose that they undergo QR along the lines described here.

variable inside the VP – the variable with respect to which the main predicate of the quantificational clause is evaluated. This is done because, as was said earlier, we want to fix the extension of the predicate in the restrictor of the quantificational claim to the actual topic situation. The exceptive phrase has its own situation variable s_3. This one is bound by the matrix lambda abstractor. This is the situation with respect to which the entire sentence is evaluated.[6] Following standard assumptions and the earlier discussion, I marked the remnant of ellipsis with focus.

(41)



The denotation of the sister of the Exceptive Phrase$_2$ (ExcP$_2$) is shown in (42).

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

No separate denotation is given to *except*: the meaning is assigned to a constituent consisting of *except* and a clause. This is done because we need to make reference to the focus alternatives of a clause following *except*. It combines with a situation (with respect to which the entire claim is evaluated) and with a constituent of type <s<st>> - the type the sister of ExcP$_2$ has. It introduces the presupposition consisting of two conjuncts. The first one is the one establishing the law-like relation between the clause following *except* and the quantificational claim. The second one is that the clause following *except* is true in the situation of evaluation. The at-issue contribution of this constituent is the domain subtraction expressed in terms of quantification over possible situations discussed in the previous section.

(43) $[\![\textit{except}\ \phi]\!]^g = \lambda s'.\lambda M_{<s<st>>}: \forall s[[\![\phi]\!]^g(s)=1 \rightarrow \neg M(s')(s)=1]\ \&\ [\![\phi]\!]^g(s')=1.$
$\exists s[\forall p[(p \neq [\![\phi]\!]^g\ \&\ p \in [\![\phi]\!]^{g,F}) \rightarrow p(s)=p(s')]\ \&\ M(s')(s)=1]$

6 I assume that there is also a local situation variable inside the clause following *except* that is bound by its own binder. It is not shown in (41) for simplicity of exposition, as this does not play any role in explaining the phenomenon we are interested in.

The resulting interpretation for the entire sentence is given in (44) (the presupposition) and (45) (the assertive content). As the reader can verify, this is the desired result discussed in the previous section.

(44) $[\![(41)]\!]^{g}(s_0)$ is defined only if $\forall s[\neg$Eva was there in s $\rightarrow \neg\forall x[$x is a girl in s_0 $\rightarrow$ x was there in s]] & $\neg$Eva was there in s_0

(45) $[\![(41)]\!]^{g}(s_0) = 1$ iff $\exists s[\forall p[(p \neq [\lambda s'.\neg$Eva was there in s'] & $p \in [\![Eva_F$ *was not there*$]\!]^{g,F}) \rightarrow p(s)=p(s_0)]$ & $\forall x[$x is a girl in $s_0 \rightarrow$ x was there in s]]

4.2 Negative quantifiers

In this section I show how the semantics proposed here correctly captures the meaning of negative quantificational claims with *except*-clauses.

Following the earlier discussion, in cases when reduced *except*-clauses operate on negative quantifiers, the ellipsis is resolved positively, as shown in (46).

(46) No girl was there except Eva ~~was there~~.

The sentence in (46) comes with the inferences given in (47), (48), (49). Those are the inferences the analysis aims to capture.

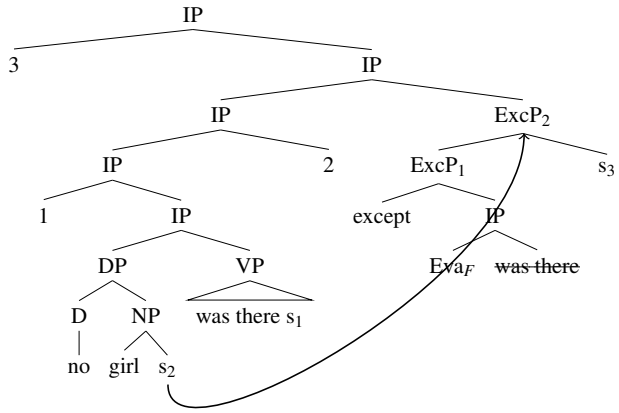
(47) *The Domain Subtraction:* No girl who is not Eva was there.

(48) *The Containment Entailment:* Eva is a girl.

(49) *The Positive Entailment:* Eva was there.

The LF for (46) is given in (50).

(50)



The denotation of the sister of Exceptive Phrase$_2$ is given in (51):

(51) λs'.λs". $\neg\exists$x[x is a girl in s' & x was there in s"]

The interpretation predicted for the entire sentence is given in (52) (the presupposition) and (53) (the assertive component).

(52) $[\![(50)]\!]^{g}(s_0)$ is defined only if $\forall$s[Eva was there in s $\rightarrow$ $\exists$x[x is a girl in s_0 & x was there in s]] & Eva was there in s_0

(53) $[\![(50)]\!]^{g}(s_0)$ =1 iff $\exists$s[$\forall$p[(p$\neq$ [λs'.Eva was there in s'] & p$\in[\![$*Eva*$_F$ *was there*$]\!]^{g,F}$) $\rightarrow$ p(s)=p(s_0)] & $\neg\exists$x[x is a girl in s_0 & x was there in s]]

The first conjunct in (52) is responsible for the inference that Eva is a girl. This is because it says: take any situation where Eva was there, what you will find is that there is a girl from s_0 who was there. The second conjunct gives us the positive inference that Eva was there. The assertive contribution in (53) can only be true if no other individual who is a girl in s_0 was there in s_0. This is because it says that there is a possible situation where the truth value of every proposition of the form 'x was there' (where x is an individual other than Eva) is the same as in s_0 and no girl from s_0 was there.

5 Polarity is controlled by the meaning

In this section I show how the semantics proposed here controls the ellipsis resolution, specifically how it forces the ellipsis to be resolved with the right polarity.

I have argued that when an *except*-clause operates on a positive universal quantificational claim, the ellipsis site contains negation. When an *except*-clause operates on a negative generalization, ellipsis is resolved positively. One such example was discussed in the previous section and another one is given in (54).

(54) Every girl was not there except Eva ~~was there~~.

I propose that the ellipsis resolution is restricted by the meaning of a sentence. In other words, we are free to resolve ellipsis positively or negatively. However, if the clause with the wrong polarity is chosen, the presupposition generated by the system is not going to be satisfied.

Let's consider the presuppositions generated for (55) given in (56). The first conjunct in (56) (in bold) is false. This is because it is not the case that in every situation where Eva was there, there is an individual who is a girl in s_0 who was not there. There is a possible situation where Eva was there along with every other individual. In that possible situation there is no girl from s_0 who was not there. This means that the sentence is not defined.

(55) # Every girl was there except Eva$_F$ ~~was there~~.

(56) $[\![(55)]\!]^{g}(s_0)$ is defined only if $\forall$**s[Eva was there in s** $\rightarrow$ $\exists$**x[x is a girl in s**$_0$ **&** $\neg$ **x was there in s]]** & Eva was there in s_0

The same goes for (57). The presupposition generated in this case is as shown in (58). The first conjunct (in bold) is not true: it is not the case that in every situation where Eva was not there there is a girl from s_0 who was there. The presupposition is not satisfied and the sentence is not defined.

(57) # No girl was there except Eva$_F$ ~~was not there~~.

(58) $[\![(57)]\!]^{g}(s_0)$ is defined only if $\forall$**s[**$\neg$**Eva was there in s** $\rightarrow$ $\exists$**x[x is a girl in s**$_0$ **& x was there in s]]** & $\neg$Eva was there in s_0

6 Capturing the distributional facts

6.1 Existential quantifiers

In this section I show how the assumptions that I made about the meaning of *except*-clauses correctly capture the fact that exceptives are not compatible with existential quantifiers. I built on the existing approaches to the semantics of exceptives that solve the distribution puzzle by deriving an ill-formed meaning when an exceptive is put together with an existential quantifier (von Fintel 1994; Gajewski 2008; Hirsch 2016). I extend a similar approach to clausal exceptives.

Given the assumptions that I made about LFs of sentences with elliptical exceptives, when we interpret (59), the constituent the exceptive phrase combines with has the denotation shown in (60).

(59) # Some girl was there except Eva$_F$ ~~was not there~~.

(60) λs'λs". $\exists$x[x is a girl in s' & x was there in s"]

The interpretation predicted for the entire sentence is given in (61) (the presupposition) and (62) (the assertive content).

(61) $[\![(59)]\!]^{g}(s_0)$ is defined only if $\forall$**s[**$\neg$**Eva was there in s** $\rightarrow$ $\neg\exists$**x[x is a girl in s**$_0$ **& x was there in s]]** & $\neg$ Eva was there in s_0

(62) $[\![(59)]\!]^{g}(s_0)$ =1 iff $\exists$s[$\forall$p[(p$\neq$[λs'.$\neg$Eva was there in s'] & p$\in$[$\![$*Eva$_F$ was not there*$\!]\!]^{g,F}$)$\rightarrow$ p(s)=p(s_0)] & $\exists$x[x is a girl in s_0 & x was there in s]]

The problem is with the first conjunct of the presupposition given in (61) (in bold). It can be true in two cases: Eva is the only girl in s_0 or there are no girls in s_0.

If Eva is the only girl in s_0, in every situation where Eva was not there, there is no individual who is a girl in s_0 who was there. If there is at least one other girl in s_0, say Anna, it cannot be true. This is because there is a possible situation where

Eva is not there, but Anna is. The scenario where Eva is the only girl is ruled out by a general principle that blocks the use of an indefinite determiner (such as *a* and *some*) in a situation where the conditions for the use of a definite article are met, specifically when it is known that the restrictor of an indefinite is a singleton set (Hawkins 1991; Heim 1991). This is the principle that rules out (63) and (64).

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

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

The first conjunct of the presupposition in (61) (given in bold) can also be true if there are no girls in s_0 at all. In this scenario, in every situation there are no girls from s_0. This option, however, contradicts the predicted at-issue content in (62). (62) says that there is a possible situation where someone who is a girl in s_0 was there. Thus, it can only be true if there are girls in s_0.

Following Gajewski (2002), I assume that constructions that are predicted to yield a contradictory meaning due to the combination of the functional elements (*some* and *except*, in this case) are perceived as ungrammatical in natural languages. I suggest that this is the reason why (59) is not well-formed.

6.2 Definite descriptions

I appealed to the competition between indefinites and definites in order to explain the incompatibility of *except* with existentials. A naturally occurring question is why *except* cannot operate on a definite description, as illustrated in (65). The meaning predicted for (65) is given in (66) (the presupposition) and (67) (the assertion).

(65) # The girl was there except Eva$_F$ ~~was not there~~.

(66) $[\![(65)]\!]^g(s_0)$ is defined only if $\forall s[\neg$Eva was there in s $\rightarrow \neg\iota x[$x is a girl in $s_0]$ was there in s] & $\neg$Eva was there in s_0

(67) $[\![(65)]\!]^g(s_0)$ =1 iff $\exists s[\forall p[(p \neq [\lambda s'.\neg$Eva was there in s'] & $p \in [\![Eva_F$ *was not there*$]\!]^{g,F}) \rightarrow p(s)=p(s_0)]$ & $\iota x[$x is a girl in $s_0]$ was there in s]

The presupposition in (66) can only be satisfied if *Eva* and *the girl* have the same referent in s_0 and if Eva was not there in s_0. The assertion in (67) states that there is a possibility where the proposition $[\lambda s.\iota x[$x is a girl in $s_0]$ was there in s] is true while all the propositions of the form 'x was not there' (where x is not Eva) have the same truth value as in s_0. Note that we learn from the presupposition that $[\lambda s.$Eva was there in s] and $[\lambda s.\iota x[$x is a girl in $s_0]$ was there in s] are equivalent. Whether (67) is true or not does not depend on s_0 (it does not depend on the facts of the form 'x was not there' where x is not Eva in s_0). It only depends on whether the proposition inside the exceptive clause is a necessary truth or not. Given the presupposition, the

assertion in (67) is either true in every possible situation (that we plug in instead of s_0) or false in every possible situation. Since the proposition denoted by the sentence following *except* ([λs.$\neg$Eva was here in s]) is not a necessary truth, in every possible situation where the presupposition is satisfied, the sentence is going to be true. There is no way for this sentence to be false. Following Gajewski (2002), I assume that sentences that have a tautological meaning due to the combination of their functional elements are perceived as ungrammatical in natural languages. If instead of *Eva was not there* we had a sentence that denotes a necessary truth after *except*, the assertion would be false in every possible situation where the sentence is defined.

Another factor that might be at play here is that the two clauses in (65) are not in sufficient contrast for the ellipsis to be licensed. A remnant of ellipsis cannot refer to the same individual as the corresponding expression in the antecedent (Rooth 1992; Stockwell 2018; Griffiths 2019).

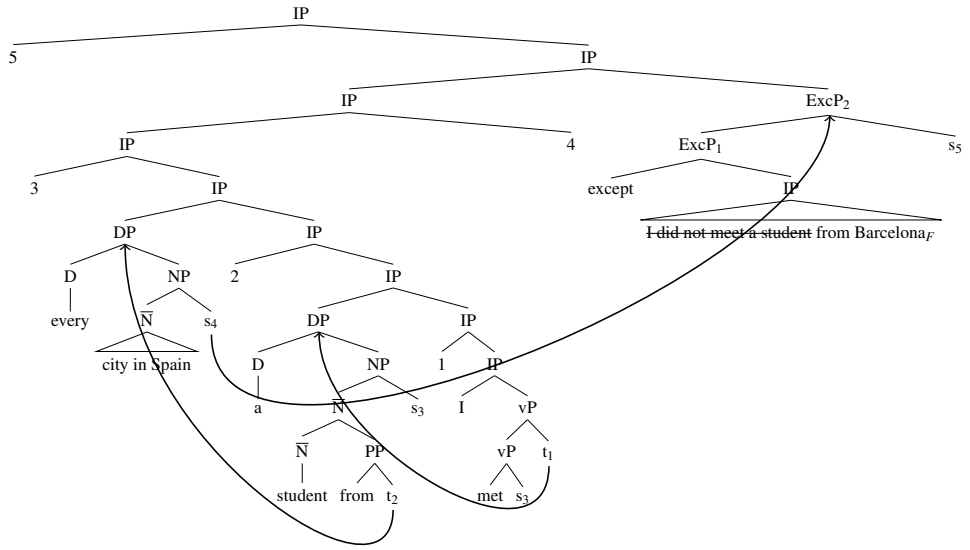
7 The analysis of a PP-case

The analysis developed here captures the example with the PP remnant *from Barcelona* in the exceptive phrase repeated below as (68) in straightforward way. As was shown above, this case presents a problem for previous theories of exceptives.

The LF I propose for this sentence is shown in (69).

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

(69)



In this LF, the complex quantificational object (*a student from every city in Spain except from Barcelona...*) undergoes QR. Then, the DP with the universal quantifier (*every city in Spain except from Barcelona...*) moves out of this phrase in order to create the configuration where *every city in Spain* takes scope over *a student*. This is necessary in order to create the meaning where for each city there is a different student. Those two QR movements are standardly assumed operations. Following what I have proposed in this paper, *except*-clause moves from its connected position, leaves a trace of type s (s_4). A binder of this trace (4) is merged in the syntax. For simplicity, I reconstructed the PP inside the *except*-clause to its base-position inside the object. The remnant of ellipsis inside the clause following *except* is focused (*Barcelona*$_F$)[7].

With those assumptions about the structure of the main clause, the sister of Exceptive Phrase$_2$ gets the interpretation given in (70).

(70) λs.λs'.$\forall$x[x is a city in Spain in s$\rightarrow$ $\exists$y[y is a student from x in s' & I met y in s']]

The predicted resulting interpretation for the entire sentence is given in (71) (the presupposition) and (72) (the assertion).

(71) $[\![(69)]\!]^{g}(s_0)$ is defined only if $\forall$s[$\neg\exists$z[z is a student from Barcelona in s & I met z in s]$\rightarrow$ $\exists$x[x is a city in Spain in s_0 & $\neg\exists$y[y is a student from x in s & I met y in s]]] & $\neg\exists$b[b is a student from Barcelona s_0 & I met b in s_0]

(72) $[\![(69)]\!]^{g}(s_0)$ =1 iff $\exists$s[$\forall$p[(p$\neq\lambda$s'.$\neg\exists$z[z is a student from Barcelona in s' & I met z in s'] & p$\in[\![$*I did not meet a student from Barcelona*$_F]\!]^{g,F}$) $\rightarrow$ p(s)=p(s_0)] & $\forall$x[x is a city in Spain in s_0 $\rightarrow$ $\exists$y[y is a student from x in s & I met y in s]]]

The first conjunct of the presupposition in (71) says 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 in s_0. The second one states that I met no student from Barcelona in s_0. Thus, the presupposition captures the containment and the negative inferences.

The assertion in (72) says that there is a situation where facts about me meeting a student from places other than Barcelona are the same as in s_0 and it is true that every city in Spain in s_0 is such that I met a student from it. The relevant restriction for the quantification over possible situations is achieved via looking at situations where the truth value of each the focus alternatives for *I did not meet a student from Barcelona*$_F$ other than the original (i.e. the propositions denoted by *I did not meet*

7 Again, the situation variables inside the *except*-clause and their binder are not shown here for simplicity. The assumption is that they are present in the structure.

a student from Madrid, *I did not meet a student from Valencia*, *I did not meet a student from Moscow*, *I did not meet a student from New York* etc) is the same as in s_0. This captures the inference that I met a student from every city in Spain other than Barcelona without directly subtracting Barcelona from the set of cities in Spain.

8 Plural remnants in *except*-clauses

In the discussion so far I have made a simplifying assumption that the remnant of ellipsis in *except*-clauses is always an expression denoting an atomic individual. This is, of course, not the case. A remnant can be plural as shown in (73). The analysis presented so far does not capture the fact that there is a containment inference for both Eva and Anna: they have to be girls. This is tested in (74) - the sentence is infelicitous because John is a clearly male name. We also need to think about how to model the domain subtraction in this case.

(73) Every girl was there except [Eva and Anna]$_F$ ~~were not there~~.

(74) # Every girl was there except [Eva and John]$_F$ ~~were not there~~.

My strategy here would be to find a way of going from the proposition denoted by *Eva and Anna were not there* to the propositions denoted by *Eva was not there* and *Ana was not there*. The set containing those two propositions is given in (75).

(75) {λs.Eva was not there in s, λs'.Anna was not there in s'}

Let's assume that the focus value of the clause following *except* in (73) is as shown in (76)[8].

(76) {λs. Eva was not there in s, λs'. Anna was not there in s', λs". Ivy was not there in s", λs"'. Mary was not there in s"', λs. John was not there in s}

The meaning of (73) can be expressed via the three statements given in (77). First, we state that what comes after *except* is true as shown in (77a). Second, we establish a law-like relation between each of the proposition in (75) and the quantificational claim, thus, capturing the inferences that Eva is a girl and Anna is a girl (shown in (77b)). Third, we express the domain subtraction as shown in (77c): there is a possible situation where all facts about people being there other than facts about Eva and Ann are the same as in s_0 and the quantificational claim is true.

(77) a. Eva and Anna were not there in s_0

b. $\forall p[p \in (75) \rightarrow \forall s[p(s)=1 \rightarrow \neg \forall x[x \text{ is a girl in } s_0 \rightarrow x \text{ was there in } s]]]$

8 This is done for simplicity, the reasoning will not change here if we also include things like [λs. Eva and Mary were not there in s] in this set.

c. $\exists s[\forall p[(p \notin (75)\ \&\ p \in (76)) \rightarrow p(s)=p(s_0)]\ \&\ \forall x[x$ is a girl in $s_0 \rightarrow x$ was there in s]]

The question is how we get (75) given (76)? What separates those two propositions in (75) from all other focus alternatives in (76) is the fact that each of them is entailed by *Eva and Anna were not there*. This is the fact that I use in the updated denotation for an *except*-clause in (78). The law-like relationship is established not between the clause following *except* and the quantificational claim, but between each of the focus alternatives of the clause following *except* that is entailed by the proposition denoted by the original sentence and the quantificational claim. A similar change is in the assertive component responsible for the domain subtraction inference: we are looking at situations where the focus alternatives that are not entailed by the original clause have the same truth value as in the situation of evaluation.

(78) $[\![\textit{except}\ \phi]\!]^{g} = \lambda s'.\lambda M_{<s<st>>}$: $\forall p[(p \in [\![\phi]\!]^{g,F} \& [\![\phi]\!]^{g} \subseteq p) \rightarrow$
$\forall s[p(s)=1 \rightarrow \neg M(s')(s)=1]]\ \&\ [\![\phi]\!]^{g}(s')=1.$
$\exists s[\forall p[(p \in [\![\phi]\!]^{g,F} \& [\![\phi]\!]^{g} \not\subseteq p) \rightarrow p(s)=p(s')]\ \&\ M(s')(s)=1]$

As the reader can verify, the denotation in (78) also works for simpler cases where the remnant is an individual denoting expression.

9 Conclusion

In this paper I have argued that English seemingly phrasal exceptive construction introduced by *except* can be derived from clausal structures by ellipsis. Based on NPI facts I have argued that there is a polarity mismatch between the main clause containing quantification and the clause introduced by *except*. I have offered a compositional semantic analysis for clausal exceptive constructions that captures the inferences traditionally associated with exceptives and restrictions on their use. The analysis I suggested here is conditional in some sense: I proposed that a clausal exceptive introduces quantification over possible situations and provides the restriction this quantification. I have proposed that a semantic relation between a clause X introduced by *except* and a quantificational claim Y can be expressed via the combination of three claims: X happened; in every situation where X happened, Y is not true; had X not happened, Y would have been true. I have shown how this analysis captures a case with a PP remnant in the *except*-phrase that previously existing analyses did not capture, because they are based on the idea that an exceptive introduces a set of individuals.

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