Exceptives and cardinality[1]

Tue TRINH — *Leibniz-Zentrum Allgemeine Sprachwissenschaft*

Abstract. There are two schools of thoughts on exceptives. The "Fintelians" take exceptives to be modifiers of the NP argument of the determiner, while the "Anti-Fintelians" take them to be something else. I present the observation that exceptives do not tolerate cardinal determiners. I then discuss the problem it poses for two Anti-Fintelian analyses and propose a Fintelian account. The main idea of the account is that exceptives introduce subdomain alternatives.

Keywords: exceptives, cardinality, alternatives.

1. Introduction

This paper is concerned with grammatical constructions of the kind exemplified by (1).

(1) all students except John and Mary came to the meeting

Here is some useful terminology: *all* is the 'determiner', *students* is the 'NP', *except John and Mary* is the 'exceptive', where *John and Mary*, i.e. the complement of *except*, is the 'exception', and *came to the meeting* is the 'VP'.[2] Basic facts about exceptives pertain to the inferences they license and the constraints on their distribution. There are three inferences associated with (1). Borrowing from Hirsch (2016) and Vostrikova (2021), I name them Containment, Negation, and Otherness.

(2) a. John and Mary are both students — Containment
b. Neither John nor Mary came to the meeting — Negation
c. all other students came to the meeting — Otherness

Containment says that NP is true of the exception. Negation says that VP is not true of the exception. Otherness says that VP is true of the complement of the exception in the NP.

Distributionally, exceptives have been observed to co-occur with universal but not with existential determiners, as evidenced by the contrast between (1) and (3).

(3) #some students except John and Mary came to the meeting

These basic facts set a criterion of observational adequacy for accounts of exceptive constructions. One way to distinguish between these accounts is to consider whether the exceptive is analyzed as modifier of the NP, i.e. whether (4) is the right syntax for (1). I write 'EP' for the exceptive.

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[2]I will use these terms with systematic ambiguity: they are to refer to either the linguistic expressions in question or what these expressions denote, depending on the context. I hope no confusion arises.

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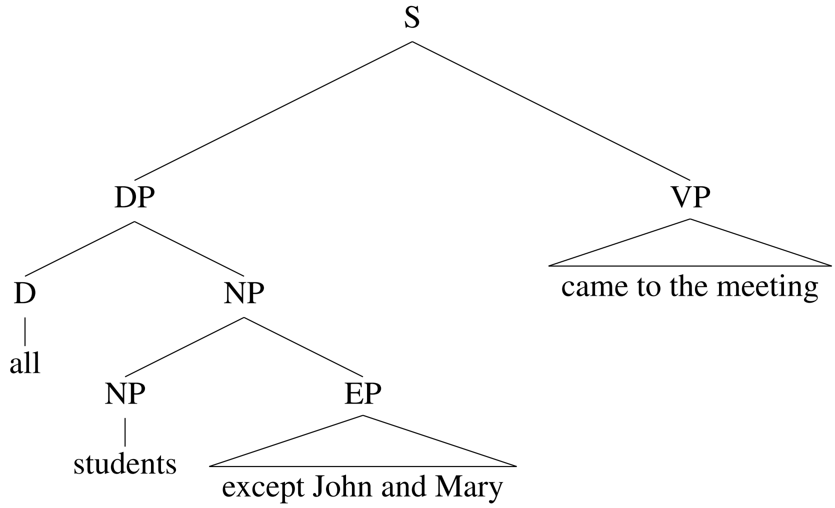
(4)



I will label as 'Fintelian' approaches which assume the structure in (4), alluding to the proposal made in von Fintel (1993).[3] Approaches which take the exceptive to be something other than modifier of NP will be called 'Anti-Fintelian'.

My goal in this note is three-fold. First, I will present an observation which has not been given attention in the literature. Second, I will discuss the problem it poses for two Anti-Fintelian analyses. Third and finally, I will propose a Fintelian account for this observation. The paper, then, can be read as providing an argument for the Fintelian analysis of exceptives.

1.1. A puzzle

So what is the observation in question? It is that exceptives are incompatible with cardinal determiners.[4] To illustrate, let me introduce the Simpson family, which has five members: Homer the father, Marge the mother, and the three children Bart, Lisa, and Maggie. Suppose Marge and the children went to the concert but Homer didn't. Consider the sentences in (5).

(5) a. all members of the Simpson family except Homer went to the concert
b. #all five members of the Simpson family except Homer went to the concert

My intuition, which is shared by native speakers of English I have consulted, is that there is a contrast between (5a) and (5b): the former is unremarkably acceptable, while the latter is decidedly odd.

Here is another example. We are now talking about soccer.[5]

[3]Note that von Fintel (1993) actually ends up analyzing the exceptive as modifier of D, not NP. However, von Fintel's analysis can easily be reconstructed as 'Fintelian' in the sense specified here, and his reasons for letting the exceptive be modifier of D pertain to considerations not relevant to our discussion. Subsequent analyses which acknowledge von Fintel (1993) as precursor and basis also view the exceptive as NP modifier (cf. Gajewski, 2008; Hirsch, 2016; Crnič, 2018).

[4]The observation is mentioned briefly in a footnote in Moltmann (1995: p. 228). Moltman speculates, in the same footnote, that it "may be attributed to a pragmatic condition which prohibits entities which are explicitly mentioned as verifiers (at least in number) not to also be specified as exceptions in one and the same NP." She does not discuss the observation any further.

[5]The common ground is that every soccer team has exactly eleven players and, also, that Messi and Otamendi are

(6) a. all eleven Argentinian players received a yellow card
b. #all eleven Argentinian players except Messi and Otamendi received a yellow card

Again, we observe a contrast, with the sentence containing the numeral being odd. Note a difference between (6) and (5): in (5) both sentences contain an exceptive but only one contains a numeral, while in (6) both sentences contain a numeral but only one contains an exceptive. Taken together, (5) and (6) provide conclusive evidence that it is the *co-occurence* of the numeral and the exceptive that causes oddness. In other words, someone with no intuition about English might conclude from (5) alone that numerals cannot co-occur with *all*, and from (6) alone that exceptives cannot co-occur with *all*. However, confronted with both (5) and (6), she would have to conclude that numerals and exceptives can co-occur with *all* independently but not jointly.

Here is yet another example. This time we will consider a full paradigm with sentences containing (i) no numeral and no exceptive, (ii) a numeral but no exceptive, (iii) an exceptive but no numeral, and (iv) both a numeral and an exceptive.

(7) a. all members of The Beatles gave an interview
b. all members of The Beatles except John Lennon gave an interview
c. all four members of The Beatles gave an interview
d. #all four members of The Beatles except John Lennon gave an interview

I will assume that cardinal determiners such as *all eleven* express a relation between sets and, at the same time, impose a 'cardinality requirement' on their restriction. In other words, *all eleven P Q* is equivalent to *all P Q* if $|P| = 11$, i.e. if P is true of exactly eleven entities, and undefined otherwise.

(8) a. $[\![\text{all}]\!] = \lambda P.\ \lambda Q.\ \forall x : Px \rightarrow Qx$
b. $[\![\text{all eleven}]\!] = \lambda P : |P| = 11.\ \lambda Q.\ \forall x : Px \rightarrow Qx$

Note that we have considered cardinal determiners which are morphologically complex, consisting of *all* and a numeral. What about the morphologically simple *both*, which has the same meaning as *all* provided its complement denotes a set with exactly two elements?

(9) $[\![\text{both}]\!] = \lambda P : |P| = 2.\ \lambda Q.\ \forall x : Px \rightarrow Qx$

The contrast in (10) shows that *both* is also incompatible with exceptives.

(10) a. both parents of the boy came to the meeting
b. #both parents of the boy except his father came to the meeting

1.2. A quick but wrong solution

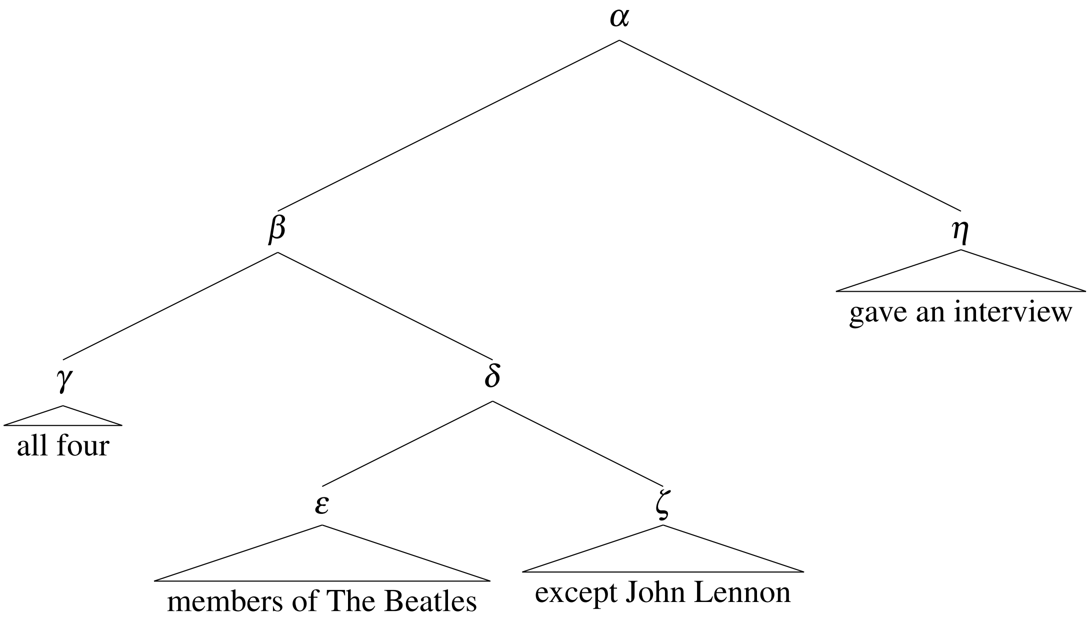
Here's a thought. Suppose the Fintelian structure is correct. Furthermore, suppose exceptives have a 'subtractive semantics' as assumed in several works (cf. von Fintel, 1993; Gajewski, 2008; Hirsch, 2016; Crnič, 2018).

Argentinian. I relegate this information to a footnote because I assume, perhaps wrongly, that readers of this paper are more knowledgable about soccer than about American cartoon series.

(11) $[\![\text{A except B}]\!] = [\![\text{A}]\!] \setminus [\![\text{B}]\!]$
i.e. the set of things that are A but not B

The oddness of (5b), (6b), (7d) and (10b) is now a consequence of these sentences being undefined. To illustrate, consider (7d) again. The syntactic structure is (12).

(12)



We have $[\![\varepsilon]\!] = \{$John Lennon, Paul McCartney, George Harrison, Ringo Starr$\}$, $[\![\delta]\!] = [\![\varepsilon]\!] \setminus \{$John Lennon$\} = \{$Paul McCartney, George Harrison, Ringo Starr$\}$.[6] This means $|[\![\delta]\!]| = 3$, which means β is undefined, which means α is undefined.

Similar arguments can be made for (5b), (6b) and (10b), reproduced in (13a), (13b) and (13c), respectively. I will label the NPs with the cardinality of the set they denote.

(13) a. #all five $[_4$ $[_5$ members of the Simpson family] [except Homer]] went to the concert
b. #all eleven $[_9$ $[_{11}$ Argentinian players] [except Messi and Otamendi]] received a yellow card
c. #both $[_1$ $[_2$ parents of the boy] [except the father]] went to the meeting

As plausible as this story may seem, it does not work. It overgenerates: the incompatibility of cardinal determiners and exceptives persists under changes made to the numeral or to the NP which would give the sister of D the necessary cardinality. Consider the sentences in (14).

(14) a. #all four $[_4$ $[_5$ members of the Simpson family] [except Homer]] went to the concert
b. #all nine $[_9$ $[_{11}$ Argentinian players] [except Messi and Otamendi]] received a yellow card
c. #all three $[_3$ $[_4$ members of The Beatles] [except John Lennon]] gave an interview
d. #both $[_1$ $[_2$ members of the Beaux Arts Trio] [except Menahem Pressler]] went to the meeting

These sentences are as odd as (5b), (6b), (7d) and (10b), even though the sister of D is of the required cardinality.

[6] I assume names can be 'type-shifted' from *e* to *et* (Partee, 1986).

1.3. The generalization

Our hope was to explain the oddness of (15a) as having the same cause as the oddness of (15b), namely a 'cardinality mismatch' between D and its NP complement.

(15) a. #all four members of The Beatles except John Lennon gave an interview
b. #all five members of The Beatles gave an interview

A crucial ingredient in the explanation is the analysis of exceptives as 'subtractive' modifiers of NPs. This analysis squares well with our intuition: when I am talking about *all members of The Beatles except John Lennon*, I am obviously talking about Paul McCartney, George Harrison and Ringo Starr, i.e. about those members of The Beatles who are not John Lennon.

But the hope has been dashed. The problematic data point is the oddness of (16).

(16) #all three members of The Beatles except John Lennon gave an interview

What (16) teaches us is that exceptives are deviant with any cardinal determiners, no matter what the number is. The examples we have considered so far have all involved encyclopedic knowledge: the Simpsons, The Beatles, soccer, reproduction. Such examples were chosen based on the initial assumption that numbers do matter. But they really don't. This is corroborated by the contrast in (17), which does not relate to encyclopedic knowledge.

(17) a. all six students came to the party
b. #all six students except John came to the party

Let us state the generalization we want to derive.

(18) Generalization
Cardinal determiners do not tolerate exceptives

2. Two anti-Fintelian analyses

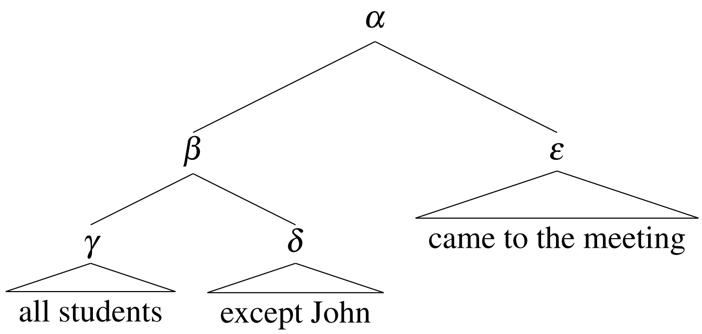
Maybe what has led us astray is our intuition that exceptives are subtractive NP modifiers. In this section I will discuss two Anti-Fintelian analyses according to which exceptives do not modify NP. The first is Moltmann (1995), which takes exceptives to modify quantifiers. The second is Vostrikova (2021), which takes exceptives to be an eliptical adverbial clauses. I will show that while both of these analyses account for the basic facts about exceptives, they do not account for (18).

2.1. The DP modifier analysis

Moltmann (1995) proposes that the exceptive phrase is a modifier of quantifiers. She assigns (19a) the structure in (19b).

(19) a. all students except John came to the meeting

b.



Moltman assumes the standard interpretation of the quantifier γ as the set of predicates which are supersets of the set of students.

(20) $[\![\gamma]\!] = \{P \mid [\![\text{student}]\!] \subseteq P\}$

She then proposes a procedure to interpret the 'modified quantifier' β. For the purpose of this discussion, an informal presentation suffices.

(21) Deriving $[\![\beta]\!]$
a. take the set of predicates in $[\![\gamma]\!]$
b. remove John from *each* of those predicates
c. the result is $[\![\beta]\!]$

Crucially, the step in (21b) is meant to require that John be an element of *each* predicate in $[\![\gamma]\!]$. The idea is that if there is a predicate in $[\![\gamma]\!]$ which does not contain John, β will not be interpretable. This view on how exceptives modify quantifers turns out to explain all the basic facts about exceptives. Suppose a, b, and c are students while d and e are not, and suppose that these five are our universe of discourse. Consider the three cases below.

(22) #[$_\alpha$ [$_\beta$ [$_\gamma$ some students] except b] came to the meeting]
a. $[\![\gamma]\!] = \{\{a,d,e\},\{b,d,e\},\{c,d,e\},\{a,b,d,e\},\ldots\}$
b. β is uninterpretable because b cannot be removed from *each* predicate in $[\![\gamma]\!]$

(23) #[$_\alpha$ [$_\beta$ [$_\gamma$ all students] except d] came to the meeting]
a. $[\![\gamma]\!] = \{\{a,b,c\},\{a,b,c,d\},\{a,b,c,e\},\{a,b,c,d,e\}\}$
b. β is uninterpretable because d cannot be removed from *each* predicate in $[\![\gamma]\!]$

(24) [$_\alpha$ [$_\beta$ [$_\gamma$ all students] except b] came to the meeting]
a. $[\![\gamma]\!] = \{\{a,b,c\},\{a,b,c,d\},\{a,b,c,e\},\{a,b,c,d,e\}\}$
b. $[\![\beta]\!] = \{\{a,\cancel{b},c\},\{a,\cancel{b},c,d\},\{a,\cancel{b},c,e\},\{a,\cancel{b},c,d,e\}\}$
c. $[\![\alpha]\!] = 1$ iff $[\![\text{came to the meeting}]\!] \in [\![\beta]\!]$

In (22), we have an existential determiner, and in (23), we have an exception that is not a student. In both cases, step (21b) is undefined, as the exception is not an element of *each* predicate in the unmodified quantifier. Uninterpretability results, and the sentence is deviant. Thus, Moltman accounts for the distributional fact that exceptives are incompatible with existential quantifiers and the inference that the NP must be true of the exception, i.e. Containment. Looking at (24), we can see that Moltman also accounts for Negation and Otherness: (24b) and (24c) together entails that b did not come to the meeting and that every other students did.

Does Moltman account for the generalization in (18)? The answer, as it turns out, is no. Consider (25), keeping to our scenario where the students are a, b, and c.

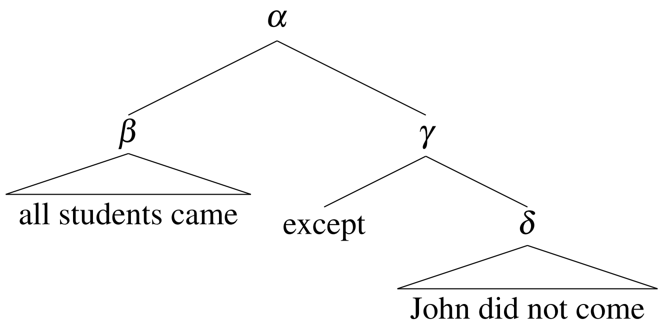
(25) $[_\alpha\ [_\beta\ [_\gamma$ all three students$]$ except $b]$ came to the meeting$]$
  a. $[\![\text{all three}]\!] = \lambda P : |P| = 3.\ \{Q \mid P \subseteq Q\}$
  b. $[\![\gamma]\!] = \{\{a,b,c\},\{a,b,c,d\},\{a,b,c,e\},\{a,b,c,d,e\}\}$
  c. $[\![\beta]\!] = \{\{a,\not{b},c\},\{a,\not{b},c,d\},\{a,\not{b},c,e\},\{a,\not{b},c,d,e\}\}$
  d. $[\![\alpha]\!] = 1$ iff $[\![\text{came to the meeting}]\!] \in [\![\beta]\!]$

As we can see, the sentence is predicted to be fine if there are three students. The problem here is that D imposes its cardinality requirement on NP only. As long as NP satisfies this requirement, modification of DP by the exceptive, and subsequent steps in the interpretation process, can proceed unimpeded.

2.2. The clausal analysis

Vostrikova (2021) takes the exceptive phrase to be an eliptical clause.[7] Specifically, the sentence in (26) has the PF in (26a), where ~~strikethrough~~ indicate phonological deletion, and the LF in (26b).

(26) all students except John came
  a. all students [except John ~~did not come~~] came
  b.



The truth condition of (26b) has three clauses and is given in (27), where w_0 stands for the actual world.[8]

(27) $[\![\alpha]\!]^{w_0} = 1$ iff
  a. $[\![\delta]\!]^{w_0} = 1$
  b. $\forall w.\ [\![\delta]\!]^{w} = 1 \rightarrow [\![\text{all}]\!]^{w}([\![\text{students}]\!]^{w_0})([\![\text{came}]\!]^{w}) = 0$
  c. $\forall w.\ \big([\![\delta]\!]^{w} = 0 \wedge [\![\text{came}]\!]^{w} \backslash \{j\} = [\![\text{came}]\!]^{w_0} \backslash \{j\}\big)$
    $\rightarrow [\![\text{all}]\!]^{w}([\![\text{student}]\!]^{w_0})([\![\text{came}]\!]^{w}) = 1$

The first clause, (27a), says that John did not come. This is Negation. The second clause, (27b), says that any world where John did not come is a world where not every actual student came, i.e. a world where at least one actual student did not come. For this to hold, John must be an

[7] I will present a simplified version of her theory. The reader is invited to consult the paper to see that the simplification does not affect the point being made.

[8] Vostrikova proposes a way to derive the truth condition compositionally from a much more complicated LF. See note 7.

actual student. This is Containment. And the last clause, (27c), says this: suppose that John had come and, furthermore, suppose that the set of people who are not John and who came remains unchanged, then it would be the case that all students came. This is Otherness, as it amounts to saying that every other student came.

Vostrikova also accounts for the distribution of exceptives, i.e. for the deviance of (28a), whose LF is (28b) and whose truth condition is predicted to consist of the three clauses in (29).

(28) a. #some students except John came
b. $[_\alpha\ [_\beta$ some student came$]\ [_\gamma$ except $[_\delta$ John did not come$]]]$

(29) $[\![\alpha]\!]^{w_0} = 1$ iff
a. $[\![\delta]\!]^{w_0} = 1$
b. $\forall w.\ [\![\delta]\!]^{w} = 1 \rightarrow [\![\text{some}]\!]^{w}([\![\text{students}]\!]^{w_0})([\![\text{came}]\!]^{w}) = 0$
c. $\forall w.\ \big([\![\delta]\!]^{w} = 0 \wedge [\![\text{came}]\!]^{w}\backslash\{\text{j}\} = [\![\text{came}]\!]^{w_0}\backslash\{\text{j}\}\big) \rightarrow [\![\text{some}]\!]^{w}([\![\text{students}]\!]^{w_0})([\![\text{came}]\!]^{w}) = 1$

While (29a) is unprolemantic, (29b) and (29c) together entail that John is the only student. Basically, (29b) says if John did not come then no student came, and (29c) says if John came then some student came. But if there is a unique student, the use of *some* would violate Maximize Presupposition (Heim, 1991). Thus, (28a) is deviant.

Does Vostrikova account for the generalization in (18)? Let us replace *all* with *all seven* and see what happens.

(30) $\#[_\alpha\ [_\beta$ all seven students came$]\ [_\gamma$ except $[_\delta$ John did not come$]]$

(31) $[\![\alpha]\!]^{w_0} = 1$ iff
a. $[\![\delta]\!]^{w_0} = 1$
b. $\forall w.\ [\![\delta]\!]^{w} = 1 \rightarrow [\![\text{all seven}]\!]^{w}([\![\text{students}]\!]^{w_0})([\![\text{came}]\!]^{w}) = 0$
c. $\forall w.\ \big([\![\delta]\!]^{w} = 0 \wedge [\![\text{came}]\!]^{w}\backslash\{\text{j}\} = [\![\text{came}]\!]^{w_0}\backslash\{\text{j}\}\big) \rightarrow [\![\text{all seven}]\!]^{w}([\![\text{students}]\!]^{w_0})([\![\text{came}]\!]^{w}) = 1$

The truth condition, simplified, is this: (i) John did not come; (ii) if John did not come, one of the seven students did not come; (iii) if John came, all seven students came. As long as there are seven students, there is nothing wrong with the truth condition, and the sentence is predicted to be acceptable, contrary to fact. Thus, the clausal analysis proposed by Vostrikova (2021) does not account for the generalization in (18).

3. Proposal

In this section I will propose an account for (18). My proposal is in the same spirit as those by Gajewski (2008); Hirsch (2016); Crnič (2018). Specifically, I assume that exceptives are subtractive NP modifiers.

(32) $[\![[_{\text{NP}}$ students [except John and Mary]] $]\!] = [\![\text{students}]\!]\backslash\{j,m\}$

Furthermore, I assume that exceptives associate with EXH, which assigns 1 to its prejacent and assigns 0 to every alternative which is defined and not entailed by the prejacent.

(33) EXH [all students [except John and Mary]$_F$ came]

(34) $[\![\text{EXH S}]\!] = 1$ iff
a. $[\![\text{S}]\!] = 1$
b. $\forall \text{S}' \in \text{ALT(S)} : [\![\text{S}]\!] \not\subseteq [\![\text{S}']\!] \wedge [\![\text{S}']\!] \neq \# \rightarrow [\![\text{S}']\!] = 0$

EXH comes with a 'non-idleness' requirement: it gives rise to deviance if it is semantically vacuous (cf. Hirsch, 2016).

(35) Non-Idleness
[EXH S] is deviant if [EXH S] $\Leftrightarrow$ S

The final, and crucial, ingredient in the analysis is the following claim about alternatives.

(36) Alternatives of exceptives
Exceptives introduce subdomain alternatives

I understand the term 'subdomain alternatives' in the familiar way: these are alternatives derived by replacing a set with one of its subsets. Using the standard notation for set subtraction, I will represent *students except John and Mary*, at the relevant level of analysis, as '$students \backslash \{j,m\}$', which denote the set of students that are neither John (j) nor Mary (m). The subdomain alternatives of (37) would then be all those propositions in which $\{j,m\}$ is replaced by $\{j,m\}$, $\{j\}$, $\{m\}$, or $\{\ \}$, i.e. those marked with ✓. Those marked with ✗ are not subdomain alternatives of (37): they are not derived from (37) by replacing $\{j,m\}$ with one of its subsets.

(37) all students except John and Mary came = all students$\backslash\{j,m\}$ came
a. all students$\backslash\{j,m\}$ came ✓
b. all students$\backslash\{j\}$ came ✓
c. all students$\backslash\{m\}$ ✓
d. all students$\backslash\{\ \}$ came ✓
e. all students$\backslash\{j,b\}$ came ✗
f. all students$\backslash\{b,m\}$ came ✗
g. all students$\backslash\{b\}$ ✗

Let us show how this analysis accounts for Containment, Negation and Otherness. Consider, again, the sentence in (38). By hypothesis, (38) has S as its logical form, in which EXH takes A as its prejacent. The subdomains alternatives of A are B, C, and D in addition to A itself.

(38) all students except John and Mary came
S = EXH [$_A$ all students$\backslash\{j,m\}$ came]
A = all students$\backslash\{j,m\}$ came
B = all students$\backslash\{j\}$ came
C = all students$\backslash\{m\}$ came
D = all students$\backslash\{\ \}$ came

Given the interpretation of EXH in (34), and the logical fact that A entails none of B, C and D, we derive the following truth condition for S.

(39) $[\![\text{S}]\!] = 1$ iff
a. $[\![\text{A}]\!] = 1$
b. $[\![\text{B}]\!] = [\![\text{C}]\!] = [\![\text{D}]\!] = 0$

Otherness follows directly from (39a), which says that every student other than John and Mary came. Let us derive Containment and Negation. Suppose that John is not a student. Then $students\backslash\{j,m\}$ = $students\backslash\{m\}$, which means A = C, which contradicts (39). Thus, John is a student. Now suppose Mary is not a student, then $students\backslash\{j,m\}$ = $students\backslash\{j\}$, which means A = B, which also contradicts (39). Thus, both John and Mary are students. We explain Containment.

Suppose John came. Then $students\backslash\{j,m\} \subseteq came$ if and only if $students\backslash\{m\} \subseteq came$, which means A = C, which contradicts (39). Thus, John did not come. Now suppose Mary came. Then $students\backslash\{j,m\} \subseteq came$ if and only if $students\backslash\{j\} \subseteq came$, which means A = B, which also contradicts (39). Thus, neither John nor Mary came. We explain Negation.

Can we derive the distribution of exceptives, i.e. the fact that they are deviant under existential quantifiers? The answer is yes. Consider (40).

(40) #some students except John and Mary came

S = EXH [$_A$ some students$\backslash\{j,m\}$ came]

A = some students$\backslash\{j,m\}$ came

B = some students$\backslash\{j\}$ came

C = some students$\backslash\{m\}$ came

D = some students$\backslash\{\ \}$ came

The logical form is S, consisting of EXH and its prejacent A. The subdomains alternatives of A are B, C, and D in addition to A itself. Since the determiner is existential *some*, A entails all of its subdomain alternatives, which means that EXH is semantically vacuous. The sentence violates Non-Idleness, which explains its deviance.

Let us now derive the generalization in (18), repeated below in (41).

(41) Generalization

Cardinal determiners do not tolerate exceptives

Consider (42), which has S as logical form.

(42) #all seven students except John and Mary came

S = EXH [$_A$ all seven students except John and Mary came]

A = all seven students$\backslash\{j,m\}$ came

B = all seven students$\backslash\{j\}$ came

C = all seven students$\backslash\{m\}$ came

D = all seven students$\backslash\{\ \}$ came

Suppose there are nine students, i.e. $|student|$ = 9. Then B, C, and D are all undefined, because *all seven* requires that its complement denote a set of cardinality 7, but $|students\backslash\{j\}|$ = $|students\backslash\{m\}|$ = 8 and $|students\backslash\{\ \}|$ = 9. EXH is then semantically vacuous, and the sentence is deviant because it violates Non-Idleness. Now suppose $|student| \neq 9$. Then A is undefined, because $|students\backslash\{j,m\}|$ = 7 iff $|student|$ = 9. And if A is undefined, S is deviant. Thus, S is deviant if there are nine students and if there are not nine students. We have derived (41).

4. Loose ends

I have proposed an account for the generalization that cardinal determiners do not tolerate exceptives. The account also derive other basic facts about exceptives, specifically the inferences they license (Containment, Negation, Otherness) and their inability to occur under existential quantifiers.

My analysis borrows from several others within the Fintelian approach (Gajewski, 2008; Hirsch, 2016; Crnič, 2018). The novel insight here, I believe, is (36), i.e. the claim that exceptives introduce subdomain alternatives in the sense clarified above. I have shown how it works to give us the right results. The reader may, however, ask whether abandoning the claim would give us the wrong result. Let us address this question. Suppose exceptives introduce standard Katzirian alternatives, which are generated by way of both deletion and substitution and thus include more than just the subdomain alternatives (Katzir, 2007; Fox and Katzir, 2011), as illustrated by (43) below.[9]

(43) #all seven students except John and Mary came
- S EXH [$_A$ all seven students except John and Mary came]
- A all seven students$\backslash\{j,m\}$ came
- B all seven students$\backslash\{j,b\}$ came
- C all seven students$\backslash\{b,m\}$ came
- D all seven students$\backslash\{m,b\}$ came
- E all seven students$\backslash\{j\}$ came
- F all seven students$\backslash\{m\}$ came
- G all seven students$\backslash\{b\}$ came
- H all seven students$\backslash\{\ \}$ came

Suppose there are nine students, three of whom are John (j), Mary (m), and Bill (b). Then A, B, C and D will be defined while E, F, G and H will be undefined. EXH will negate the defined and non-entailed alternatives, leaving the undefined alone. This means S will have the following truth condition.

(44) $[\![S]\!] = 1$ iff
- a. $[\![A]\!] = 1$
- b. $[\![B]\!] = [\![C]\!] = [\![D]\!] = 0$

We would then not be able to derive the deviance of (43) from Non-Idleness. Thus, the benefit of limiting alternatives of exceptives to subdomain alternatives is that once there is a cardinal determiner, either the prejacent will be undefined or *all* of the alternatives (except the prejacent itself) will be undefined. In the first case, the sentence is deviant because it contains an undefined constituent. In the second case, it is deviant because it violates Non-Idleness.

I will end with some issues for further research. First, it has been reported to me by native speakers that there is a contrast in (45).

(45)
- a. all four hundred students except John came
- b. #all four hundered and one students except John came

[9] Such a view on alternatives of exceptives is adopted by Hirsch (2016), which did not discuss cardinal determiners.

The difference between *four hundred* and *four hundred and one* is that the first can be read as 'approximately 400' while the second has to be read as 'exactly 401'. In other words, *four hundred* can be vague, while *four hundred and one* must be precise (Krifka, 2002, 2007). How precision can be factored in is a question I hope to return to.

Another intriguing observation is that the smaller the ratio NP/EP is, the less acceptable EP is.

(46) a. all members of congress except the most radical leftists voted for the bill
b. #all members of congress except the democrats voted for the bill

I also leave this to future work.

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