Everyone except possibly Ann

Introduction   This paper deals with the interaction of modals and exceptives, as in (1). (1)'s meaning has three components, familiar from the literature on exceptives, with *possibly* only modifying the exception component (Moltmann 1995, García Alvárez 2008): (i) *Quantification*: Every student who is not Ann passed; (ii) *Containment*: Ann is a student; (iii) *Exception*: It is possible that Ann did not pass.

(1)   *Every student passed except, possibly, Ann.*

Two kinds of syntactic analyses have been entertained for exceptives: (i) a phrasal one, as in (2a), (von Fintel 1993, 1994, Hirsch 2016, Crnič 2021) and a clausal one, as in (2b), (Vostrikova 2021). Vostrikova (2021) argues that *possibly* only occurs with clausal exceptives. Here we show that at least some cases of modals inside exceptives call for a different approach. We propose a novel analysis based on the idea of exception as set subtraction (Hoeksema 1983, von Fintel 1994) with exhaustification (Gajewski 2013, Hirsch 2016, Crnič 2021), where the modal nevertheless takes a propositional argument.

(2)   a. *[every [student [except Ann]]] passed*

   b. *[[every student passed] [except [~~not~~ [Ann ~~passed~~]]]*

Problems for the clausal analysis   *Possibly* can occur inside an exception phrase in cases when the main predicate of the sentence is collective, like *gather* in (3a). Under the clausal analysis the elided verb would be *gather*. But since *gather* does not take individuals as arguments, the *except*-clause would be undefined. One might conjecture that the predicate in the *except*-clause is not collective. Assuming ellipsis allows for this (Bogal-Allbritten 2014, Bogal-Allbritten and Weir 2017), the representation for the *except*-clause in (3a) might look like (3b), with *gather* replaced by *took part in the gathering*.

(3)   a. *All the students gathered except, possibly, Ann.*

   b. *[except possibly [~~not~~ [Ann ~~took part in the gathering~~]]]*

This approach, however, makes incorrect predictions about NPI licensing inside *except*-phrases. NPIs are licensed inside English clausal exceptives (Vostrikova 2021, Crnič 2021). Vostrikova (2021) explains this by the presence negation in the elided clause (4a). Crucially, such NPI licensing does not carry over to the cases with collective predicates, as shown in (4b). On the clausal plus predicate-replacement hypothesis the the *except*-clause in (4b) could have a parallel representation like (4c) and the NPI would be licensed.

(4)   a. *John danced with everyone except ~~he did not dance with~~ any girls from his class.*

   b. **John gathered all the animals except any cow.*

   c. *except ~~he did not include in the collection~~ any cow(s).*

Problems for the phrasal analysis   On the phrasal analysis the modal in (1) would not get a propositional argument. If the modal were cross-categorial, working on individuals and *except* directly, it would be unclear how to generalize this to attitude verbs (e.g. *I think*) that can also occur in that position. The modal expressions occurring with *except* track those occurring in reduced conjunctions (cf. Hirsch and Sauerland 2019).

The novel analysis   Following Gajewski (2013), Hirsch (2016), Crnič (2021), we adopt the view that exception is (i) set-subtraction plus (ii) exhaustification. Unlike in those accounts, we assume that the domain subtraction is not contributed by *except*, but by a silent element *minus*, which also contributes the containment inference as a presupposition (as shown in (5c)). Instead, *except* is interpreted as *and* conjoining two clauses: the quantificational claim with domain subtraction and the same claim with Exh (shown in 5a). *Except* licenses the presence of *Exh* and *minus*.

(5) a. *[$_A$ [$_B$ all the students minus Ann gathered]*
        [except [$_D$ possibly [$_C$ Exh$_{Alt}$ [$_B$ ~~all the students minus~~ *Ann$_F$* ~~gathered~~ *]]]]]*

    b. $[\![except]\!] = [\![and]\!]$

    c. $[\![minus]\!] = \lambda g_{<et>}.\lambda f_{<et>} : g \subseteq f.f - g$

Fig. 1 (p.3) shows the surface representation with *minus Ann* undergoing rightward movement in each clause plus right-node-raising. The two lower copies are not ~~pronounced~~ but underlined interpreted. The rightmost copy in the left clause is not pronounced (cf. Fox 1999).

The meaning of the second conjunct is derived as in (6). *Exh* has the standard semantics (it asserts its prejacent and negates the IE alternatives). The alternatives are formed by replacing *Ann* with DPs of at most the same complexity (Fox and Katzir 2011). Assuming the students are Ann, B, C, D, the propositional argument of *possibly* is in (6d). The overall denotation of the second conjunct (in (6e)) can be paraphrased as follows: it is possible that B, C, and D gathered and Ann was not a part of this gathering.

(6) a. $[\![Exh_{Alt}\ \phi]\!] = \lambda w_s.[\![\phi]\!](w) = 1\ \&\ \forall p[p \in IE(Alt, [\![\phi]\!]) \rightarrow p(w) = 0]$

    b. $[\![B]\!] = \lambda w.\text{B+C+D gathered in } w$

    c. $Alt = \{$*all the students minus α gathered*$|\alpha \preceq Ann\}$
        $\simeq \left\{ \begin{array}{l} \lambda w.\text{the maximal student plurality excluding B gathered in } w \\ \lambda w.\text{the maximal student plurality excluding C gathered in } w \\ \lambda w.\text{the maximal student plurality excluding D gathered in } w \\ \lambda w.\text{the maximal student plurality gathered in } w \end{array} \right\}$

    d. $[\![C]\!] = \lambda w.[\![B]\!](w) \wedge \neg(\text{A+C+D gathered in } w \vee \text{A+B+D gathered in } w \vee \text{A+B+C}$
        gathered in $w \vee$ A+B+C+D gathered in w)

    e. $[\![D]\!] = \lambda w.\exists w'[w' \in Acc_w \wedge [\![B]\!](w') \wedge \neg(\text{A+C+D gathered in } w' \vee \text{A+B+D}$
        gathered in $w' \vee$ A+B+C gathered in $w' \vee$ A+B+C+D gathered in $w')]$

The meaning of the first conjunct in (5a) is the same as the meaning of the prejacent of *Exh* in the second clause, shown in (6b). The overall predicted meaning of the sentence is in (7). It can be reduced to the underlined part of (7). This is because if B,C,D gathered and it is possible that B,C,D gathered, but A was not a part of the gathering, it is the case that B,C,D gathered and it is possible that A was not a part of this gathering. Thus, we derive the desired meaning, where *possibly* only targets the negative inference.

(7) $[\![(5a)]\!] = \lambda w.\underline{\text{B+C+D gathered in w}} \wedge \exists\text{w'}[\text{w'} \in \text{Acc}_w \wedge \text{B+C+D gathered in w'}$
     $\wedge \neg\text{A+C+D gathered in w'} \wedge \neg\text{A+B+D gathered in w'} \wedge\neg\text{A+B+C gathered in w'}$
     $\wedge \underline{\neg\text{A+B+C+D gathered in w'}}]$

Discussion On this account we do not expect NPI licensing after *except*. Since the *minus*-phrase is not a clause, the clausal strategy along the lines of (Vostrikova 2021) is not available. *Minus* is looking for a set of individuals. Even if the type-shifting strategy from a generalized quantifier to a set of individuals is available for *any cow*, given our assumption in (5a), its position in (4b) is not a DE environment. In the prejacent of Exh (asserted by it), *any* is in the restrictor of the universal quantifier under the minus sign, which is an UE position (von Fintel 1994).

In the absence of *possibly* the second conjunct is predicted to asymmetrically entail the first one, as the first one would be equivalent to the prejacent of Exh. However, incremental redundancy is generally allowed for conjunctions (Schlenker 2008, Mayr and Romoli 2016). A similar phenomenon is observed in *No$_C$ one came, only John*, where the second conjunct asymmetrically entails the first one (with a domain restriction).
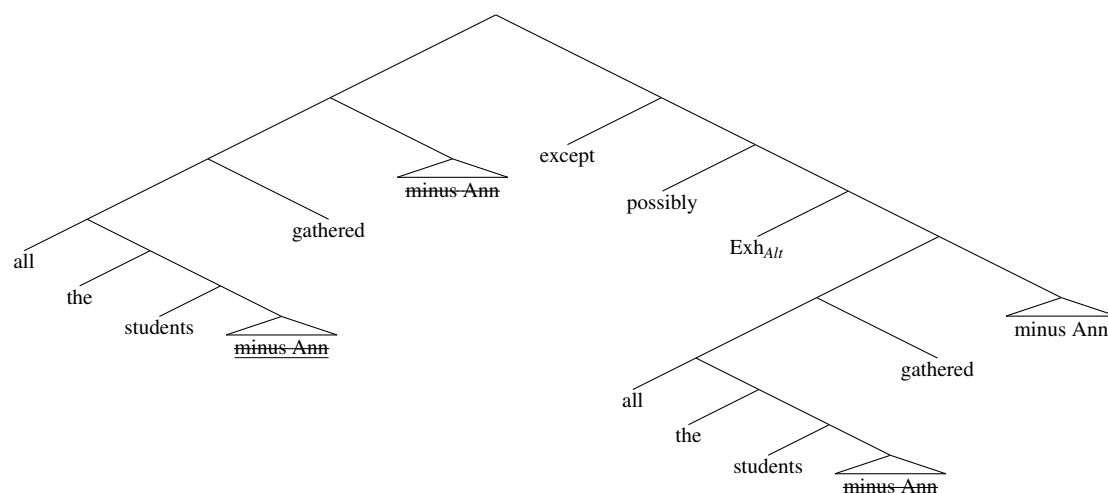
Figure 1: Derivation of the surface structure

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