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***Many, most, few* and exceptives**

1. Introduction
1.1 The received view

- Central puzzle in the semantics of exceptives: distribution of exceptive constructions
- Any semantic theory must capture these distributional properties
- Some facts about the distribution of exceptives are very clear: there the clear contrast between (1)/(2) and (3).

(1) Every girl but/except Ann came. (negative inference: Ann did not come)
(2) No girl but/except Ann came. (positive inference: Ann came)
(3) *Some girl but/except Ann came.

Standard view (following von Fintel 1993, 1994):
- Exceptives as domain restrictors
- Exceptives restrict a quantifier's domain by excluding an element
- In our cases: quantification ranges over a domain that excludes Ann

This alone of course, does not explain why (3) should be bad.

There is nothing wrong with this quantificational claim:

(4) Some girl other than Ann came.

- Standard solution: additional meaning component
- This component: negation of alternative quantificational claims
- Alternatives: domains where a different individual—or no individual—is excluded

Let's illustrate this:
- (1) is consistent and derives the inference that Ann did not come (she is the exception)

(5) Every girl not including Ann came & not every girl came.

- (3) is a contradiction.

(6) *Some girl not including Ann came & no girl came

There are various implementation of this idea, the most recent one is in terms of Exh

(7) [Exh every girls but Ann_F came]

2.1 The problem

- Exh-based approach derives ungrammaticality of *except* and *but* with *many*, *most* and *few*.
- This happened not by a mistake or accident. The examples were considered to be ungrammatical.
- Some recent and not so recent work (García Álvarez 2008, Peters and Westersthål 2023) challenge the empirical adequacy of this.
- They offer alternative approaches that rely on the notion of generality.
- However, they don't treat the positive and the negative cases in the same way, essentially those are the ambiguity approaches.
- Not all such examples are acceptable.
- The generalization has to be large, conceptual or to be singled out in another way.

The question: Is there a way of modelling these cases in the Exh-based approach?

I will not be able to provide a satisfactory answer to this question.

I will propose a possible path and leave one big problem unsolved.

2.2 The plot

- *Besides* exceptives are the most permissive ones
- They are acceptable in a much wider set of environments than *but* and *except*
- There is a proposal in the literature that derives this fact.
- Specifically, *besides* exceptives operate on a **smaller set of alternatives**, the only alternative is the claim without the subtraction (von Fintel 1988, Mayr&Vostrikova 2022)
- *Besides* is uncontroversially acceptable with *many*, *most* and *few*.
- **My goal for today is to account for the interaction of *besides* with these quantifiers.**
- The path is then clear: in order to extend this to *except* and *but* all we need is to say that sometimes some of the alternatives can be pruned, so *except* and *but* can also in some cases operate on a smaller set of alternatives.
- But I don't have a general theory about when this is allowed and when this is not allowed.

2.The empirical picture

2.1 The hard problem: *Except/but* and *many, most, few*

There is a disagreement in the literature about the acceptance of exceptives with quantifiers that are close enough to the end of the scale, such as *many*, *most* and *few*.

The *Exh*-based approach derives the ungrammaticality of *except* with such quantifiers.

von Fintel 1994, Moltmann 1995, Hirsch 2016, Gajewski 2013: those are ungrammatical.

(8) *Many girls except/but Ann came.
(9) *Most girls except/but Ann came.

(10) *Few girls except/but Ann came.

However, these facts are challenged in García Álvarez 2008, Peters and Westersthål 2023. They suggest that naturally occurring acceptable cases of exceptives with such quantifiers can be found.

Those examples are presented as a major challenge to the Exh-based approach.

Below I list all of the good examples that were reported in the literature:

Except

García Álvarez 2008:

(11) Johanaston noted that **most** dishwashers **except very low end models** have a water- saving feature.

(12) The deeper shade of the ash grove has militated against the invasion of **many** species except **the more tolerant ones**.

(13) **Few** people **except director Frank Capra** expected the 1946 film “It’s a Wonderful Life” to become a classic piece of Americana.

(14) Kate is an actress who has played **many** roles **except that of a real woman**.

(15) With **many** countries **except Japan**, the United States maintains a trade surplus or trade balance.

Peters and Westersthål 2023:

(16) **Most** U.S. senators **except Republicans** consistently support gay marriage and most except Democrats consistently oppose it.

(17) **Few** adults **except women** know more than a dozen color names and few adults except men know a dozen or fewer color names.

(18) **Most** participants **except Mr. Paisley** favored a referendum, according to a participant who asked not to be identified because he was not authorized to disclose details of the deliberations.

(19) **Most** men **except professional cyclists** have hair on their legs.

But:

García Álvarez 2008:

(20) In **most but two cases the lesion** was confined to the cerebellum, but in the two cases mentioned there was slight damage to the dorsolateral part of the lateral vestibular nucleus.

Peters and Westersthål 2023:

(21) On the import side, a weakened economy explains the decline in imports from **most** countries **but China**.

(22) Egypt, following years of chaos, is struggling to secure financial assistance and investment, something **few** countries **but China** can offer.

(23) We are available **most** days **but Sundays**. Also, we are unavailable on national holidays.

Alternative proposals have been developed trying to find a natural link between universal quantifiers and *most*, *many* and *few*.

Those appeal to the notion of generality (García Álvarez 2008, Peters and Westersthål 2023).

They rely on a distinction between negative and positive generalizations and therefore do not treat them uniformly.

Why are (8)-(10) not perceived as grammatical in the same way as these ones?

Generalization: the exception set has to be big, conceptual or has to be singled out in one way or another

Can an Exh approach derive the acceptability of these as well as its contrast with (8)-(10)?

2.2 The easy problem: *besides* and *many, most, few*

The facts with *besides* are clear and uncontroversial.

- Both (24) and (25) are acceptable.
- They are compatible with Ann coming or not.

(24) Many girls besides Ann came.
(25) Most girls besides Ann came.

These facts are consistent with two hypotheses:

H1: *Besides* does not contribute any inference at all in (24) and (25).
H2: *Besides* contributes either the positive or the negative inference in both cases, but something is masking it

Arguments in favor of H2:

Argument 1

Why we don't get any inference about Ann in (24) and (25), but we get the inference in these cases?

(26) Every girl besides Ann came **Inference**: Ann did not come
(27) No girl besides Ann came **Inference**: Ann came

Argument 2

In the minimally different example, we observe the positive inference.

(28) Few girls besides Ann came. **Inference**: Ann came

Argument 3

In *there*-sentences only the cardinal reading of *many* survives (Partee 1989) and only the additive reading is available:

(29) There were many girls besides Ann at the party. **Inference**: Ann was there.

The proposal about *many*: the ambiguity of *besides* stems from the ambiguity of *many* (the cardinal vs the proportional readings (Partee 1989).

Besides generates a specific inference about Ann, but it is masked by *many*'s ambiguity.

- The exceptive reading arises under the proportional reading of *many*.
- The additive reading arises under the cardinal reading

3. The proposal about *many* and *besides*

3.1 The background on the meaning of *besides* and its difference from *except* and *but*

(30) At least 2 girls besides Ann came.
(31) At most 2 girls besides Ann came.
(32) Exactly 2 girls besides Ann came.

(33) *At least 2 girls except Ann came.
(34) *At most 2 girls except Ann came.
(35) *Exactly 2 girls except Ann came.

- The starting point is *exactly*, the rest follows automatically (Mayr & Vostrikova 2022)
- Both cases have the same LF:

(36) LF: [Exh exactly 2 girls except/besides Ann came]

- The difference lies in how the alternatives are computed in the two cases (von Fintel 1989, Mayr & Vostrikova 2022).

- The only alternative for *besides* is the one without *besides*

(37) Alt(32) ={Exactly 2 girls came}

- The alternatives for except are formed by making a substitution in the position following *except* + the alternative without *except* (remember *except* is just *minus*)

(38) Alt(35) ={Exactly 2 girls came, Exactly 2 girls except B came, Exactly 2 girls except C came, Exactly 2 girls except D came }

- Exh negates all the alternatives not entailed by the prejacent and asserts the prejacent.
- In case of (32) this results in the additive meaning.
- In case of (35) in a contradiction.

For the simplicity of exposition, I am going to give names to the following sets:

(39) girl := {x: x is a girl}; came := {y: y came}; Ann := {Ann}

(40) $[\![(32)]\!]^{g,c}$ = T iff |girl-Ann∩came| = 2 & |girl ∩came| ≠2

- If you don't count Ann, there are exactly 2 girls who came.
- If you include her and not do any other change, there are not exactly 2.
- This is only possible if Ann came

(41) {x: x is a girl} = {A,B,C,D}

(42) $[\![(35)]\!]^{g,c}$ = T iff |girl-Ann∩came| = 2 & (the prejacent)
|girl ∩came| ≠2 & (negated alt 1)
|girl-B ∩came| ≠2 & (negated alt 2)
|girl-C ∩came| ≠2 & (negated alt 3)
|girl-D ∩came| ≠2. (negated alt 4)

- For the prejacent to be true, two comers need to be in {B,C,D}, say B and C
- There has to be not exactly 2 comers in {A,B,C,D}, only possible if A came too (neg alt 1)
- But now there is no way there are not exactly 2 in {A ,C,D} (neg alt 2)
- We derived a contradiction.

Mayr & Vostrikova 2022 about (30) and (31):

- Decomposition of modified numerals
- They move at LF leaving the constituent with the meaning exactly:

(43) [At least two 1 Exh **exactly d_1-many girls besides Ann came**]

The resulting interpretation:

(44) $\exists d[d \geq 2 \ \& \ |girl\text{-}Ann \cap came| = d \ \& \ |girl \cap came| \neq d]$

The additive inference follows.

(33) is bad because *except* gives a contradiction with *exactly*.

We further derive the meaning of *exactly d_1-many girls* from the elements that we independently proposed such as *many* (Hackl 2000) and the maximality operator (Buccola and Spector 2016).

The full LF would look more like this:

(45) [at least one[2 [EXH [[max d_2][1[many d_1 student besides Ann passed]]]]]]

3.2 *Besides* and the proportional reading of *many*

The proportional reading of *many*: the standard approach

(46) Many girls came.

(47) $[\![many_{prop}]\!]^{g,c} = \lambda Q_{<et>}.\lambda P_{<et>}.|Q \cap P|/|Q| \geq d_c$
where d_c is a contextually salient threshold

(48) $[\![(46)]\!]^{g,c} = |girl \cap came|/|girl| \geq d_c$

Now let's add *besides*

(49) Many girls besides Ann came.

(50) LF: [Exh many girls [besides Ann]$_F$ came]

(51) The prejacent: $|girl\text{-}Ann \cap came|/|girl\text{-}Ann| \geq d_c$

(52) The negated alternative: $|girl \cap came|/|girl| < d_c$

In plain English: adding Ann back into the domain makes the proportion smaller.

The positive result: we captured the negative inference!

- The predicted inference is negative (the exceptive reading)

Consider this situation:

(53) girl={A, B, C, D, E, F}, came ={C, D, E, F}

Consider the proportion without Ann.

(54) |girl-Ann∩came|/|girl-Ann | = 4/5 (0.8)

Now let's consider it with Ann: it gets smaller, as long as she did not come.

This is because if Ann did not come, we only made the denominator bigger.

(55) |girl∩came|/|girl| = 4/6 (0.666)

If she came, then the proportion gets bigger.

(56) girl={A, B, C, D, E, F}, came ={A, C, D, E, F}

This is because by adding Ann back to the domain we make both the denominator and the numerator bigger.

(57) |girl-Ann∩came|/|girl-Ann | =4/5 (0.8)
(58) |girl∩came|/|girl| = 5/6 (0.83)

The negative result: we predict that if Ann is considered than the claim that many girls came is false (with her included we do not meet the contextual threshold for *many*)

The example (repeated below) does not mean that if we consider the whole set without the exception, the *many*-claim will become false.

(59) Many girls besides Ann came.

The solution: the decomposition of *many*

Let's assume the denotation for *many* in (60).

(60) $[\![\text{many}_{\text{prop}}]\!]^{g,c} = \lambda d.\lambda Q_{<et>}.\lambda P_{<et>}.|Q \cap P|/|Q| \geq d$
(61) LF [POS [1 [many d_1] girls came]]
(62) $[\![\text{POS}]\!]^{g,c} = \lambda D_{<dt>}.\exists d[d \in D \ \&\ d >$ the standard threshold$]$

The meaning of (61) is that there is a contextually large degree and this degree is the proportion.

(63) $[\![(61)]\!]^{g,c}$ = T iff $\exists d[d >$ the standard threshold $\&\ |\text{girl} \cap \text{came}|/|\text{girl}| \geq d]$

Now let's factor in *besides.*

(64) [POS_1 [1 [$_{\text{IP1}}$ **Exh [**[[$\text{many}_{\text{prop}}$ d_1] [girls **besides** Ann]] came**]**]]]

The meaning of IP_1 is in (65).

(65) $[\![\text{IP}_1]\!]^{g,c}$ = T iff $|\text{girl-Ann} \cap \text{came}|/|\text{girl-Ann}| \geq g(1)\ \&\ |\text{girl} \cap \text{came}|/|\text{girl}| < g(1)$

This is familiar from the discussion above: this is consistent only if Ann did not come.

It holds if Ann did not come: the denominator of the alternative grows while the numerator stays the same as in the original, reducing the proportion.

If Ann came, both numerator and denominator raise, the proportion gets bigger, the result is false, then there will be no such degree.

The overall denotation:

(66) $[\![(64)]\!]^{g,c}$ = T iff $\exists d[d >$ the standard threshold $\&$
$|\text{girl-Ann} \cap \text{came}|/|\text{girl-Ann}| \geq d\ \&\ |\text{girl} \cap \text{came}|/|\text{girl}| < d$

Note that this solves the problem we had before: now it is not required that adding Ann back into the domain makes the *many*-claim false.

There is a degree above the threshold, such that without Ann the proportion of comers among girls is bigger or equal to that degree and with Ann smaller than that degree.

It is possible that the threshold is 1/2 (0.5). Both the proportion with and without Ann are larger than 1/2.

(67) Without Ann 4/5 (0.8)

(68) With Ann 4/6 (0.666)

Thus, the exceptive inference is derived under the proportional reading.

Why is such decomposition reasonable?

- Romero 2015 proposes the same decomposition with the same meaning for *many* (but a different meaning for POS).
- This is needed to account for the fact that the contextual threshold is computed via the focus value of the constituent below POS
- This is needed to account for the reverse proportional reading.

(69) LF [POS_{C1} [$\sim C_1$ [1 [many d_1] girls $came_F$]]]

The reverse proportional reading

Westersthål (1985):

(70) Many Scandinavians have won the Nobel Prize in literature.
(71) Paraphrase: 'Many of the Nobel Prize winners are Scandinavians.'
(72) Reverse Proportional reading of Many P s are Q:
$|P \cap Q| / |Q| \geq d$, where d is a contextually large proportion.

Reverse proportional reading is available only if (part of) the N' complement of the determiner is:

- focused (F) (Herburger, 1997)
- functions as contrastive topic (CT) (Cohen, 2001)

(73) Many $Scandinavians_{F/CT}$ have won the Nobel Prize in literature.

The contextual threshold is computed from this:

(74) $\{\lambda d' .(|\{x : Scandinavian(x)\} \cap \{x : NP\text{-}winner(x)\}| / |\{x : Scandinavian(x)\}|) \geq d'$,
$\lambda d'.(|\{x : Mediterranean(x)\} \cap \{x : NP\text{-}winner(x)\}| / |\{x : Mediterr.(x)\}|) \geq d'$,
$\lambda d' .(|\{x : M.Eastern(x)\} \cap \{x : NP\text{-}winner(x)\}| / |\{x : M.Eastern(x)\}|) \geq d' , \ldots\}$

Unfortunately, I did not manage to retain the beauty of her analysis

3.2 *Except* and the proportional reading of *many*

Consider *except* instead of *besides*.

(75) *Many girls except Ann came.

Now the alternatives are formed by subtracting every other individual.

Assume *many* cannot be used if all came.

Exh claim cannot be satisfied: subtracting any other non-comer gives the same proportion as subtracting Ann, so the sentence is false regardless of the individual following *except* (subtracting A or B gives the same proportion).

(76) girl={A, B, C, D, E, F}, came ={C, D, E, F}

(77) [POS$_1$ [1 [$_{IP1}$ **Exh [**[[many$_{prop}$ d$_1$] [girls **except** Ann$_F$]] came**]**]]]

This explains the ungrammaticality of (75).

Now let's consider this:

(78) Kate is an actress who has played **many** roles **except that of a real woman**.

With a large conceptual exception, 'role of a real woman', assume similar conceptual alternatives: 'role of a whimsical character', 'role of an old lady'.

As long as the exception is the largest, the Exh claim holds.

For example, with 100 possible roles: whimsical characters = 85, 80 played; old lady = 5, 3 played; real women = 10, none played.

All alternative proportions are smaller, satisfying Exh: removing the largest exception in the original makes the numerator large, so putting it back and removing something else yields a smaller proportion.

(79) |Roles-roles of a real woman∩ played | /|roles- roles of a real woman| =83/90
(80) |Roles-roles of a whimsical character∩ played | /|roles- whimsical character| =3/15
(81) |Roles-roles of an old lady ∩ played | /|roles- old lady|=80/95

Assume that **subpluralal alt** are available for **roles of a real woman**, so that we correctly derive that she did not play any role of a real woman.

With these assumptions we derived the contrast between (75) and (78).

The problem:

(82) *Kate is an actress who has played **exactly 83** roles **except that of a real woman**.

- The prediction: this should be grammatical.
- The predicted meaning:

  Kate played the roles of a real woman
  Other conceptual sets do not have exactly this many roles that she played. They can contain more roles or less roles, but not exactly 80, like the roles of a real women.

Let's compare this with:

(83) Kate is an actress who has played **exactly 83** roles **besides that of a real woman**.

Let's consider another one:

(84) We are open **on many** days **but Sundays**. Also, we are closed on national holidays.

Imagine the alternatives are only other days of the week.

There are 365 days in a year, 65 Sundays.

Imagine there are 10 national holidays. 4 on Tuesdays and 6 on Mondays. There are 65 Tuesdays and 65 Mondays.

They are open 290 days a year

(85) |days-Sundays ∩ open| /| days-Sundays | =290 /355
(86) |days-Tuesday ∩ open| /| days-Tuesdays | =229 /355
(87) |days-Mondays ∩ open| /| days- Mondays| =231 /355

- Every time I am removing something other than Sunday, I am removing a big chunk of working days, lowering the proportion.
- This is ok, as the meaning we want is that removal of Sunday will give us the greatest proportion compared to removing of the other days of week.
- No contradiction
- As long as this is the biggest exception and the alternatives can be pruned, it is predicted to derive the correct meaning.

But we run into the same problem, if we allowed to used only these alternatives, we don't predict the ungrammaticality of exactly + but

(88) *We are open **on exactly** 290 days **but Sundays**.

3.3 *Except, besides* and the cardinal reading of *many*

Let's assume the standard cardinal denotation of *many*.

Following Buccola & Spector (2016), we assume a maximality operator can be inserted to turn *many* into *exactly*.

Exactly with *besides* produces an additive inference, whereas *exactly* with an exceptive *except* yields a contradiction (Mayr & Vostrikova 2022).

The meaning of *besides* with this *many* is indeed additive: there is a degree > contextual threshold such that removing Ann yields exactly this many girls-comers, and including her yields not exactly this many (only possible if it is bigger).

(89) $[\![\text{many}_{card}]\!]^{g,c} = \lambda d.\lambda P_{<et>}.\lambda Q_{<et>}.\ \exists x[P(x)\ \&\ Q(x)\ \&\ |x|=d]$
(90) [POS1 [2 [IP_1Exh [max d_2] 1 many card d_1 girls besides Ann came]]]

4. *Exceptives* and *few*

(91) Few girls besides Ann came. **Inference**: Ann came

The proportional *few* is the flip of *many*

(92) $[\![\text{few}_{prop}]\!]^{g,c} = \lambda d.\lambda Q_{<et>}.\lambda P_{<et>}.|Q\cap P|/|Q| < d$
(93) LF [POS_2 [1 [few d_1] girls came]]

Unfortunately, I have to stipulate that it comes with a different POS_2 that is also a flip of the original one we used with *many*.

(94) $[\![\ POS_2]\!]^{g,c} = \lambda D_{<dt>}.\exists d[d\in D\ \&\ d < \text{the standard threshold}]$

The meaning of (61) is that there is a contextually small degree and this degree is the proportion.

(95) $[\![(61)]\!]^{g,c}$ = T iff $\exists d[d < \text{the standard threshold}\ \&\ |girl\cap came|/|girl| < d]$

Now let's factor in *besides.*

(96) [POS_1 [1 [$_{IP1}$ **Exh [**[[few_{prop} d_1] [girls **besides** Ann]] came**]**]]]

The meaning of IP_1 is in (65).

(97) $[\![\ IP_1]\!]^{g,c}$ = T iff $|girl\text{-}Ann\cap came|/|girl\text{-}Ann| < g(1)\ \&\ |girl\cap came|/|girl| \geq g(1)$

As we know the proportion grows with adding Ann if she came.

(98) $[\![(97)]\!]^{g,c}$ = T iff $\exists d[d < \text{the standard threshold}\ \&$
$|girl\text{-}Ann\cap came|/|girl\text{-}Ann| < d\ \&\ |girl\cap came|/|girl| \geq d]$

The resulting interpretation is additive (the inference is positive *Ann came*)

The cardinal reading of few also derives the positive inference:

(99) $[\![\text{few}_{card}]\!]^{g,c} = \lambda d.\lambda P_{<et>}.\lambda Q_{<et>}.\ \exists x[P(x)\ \&\ Q(x)\ \&\ |x|=d]$

(100) [POS$_2$ [2 [$_{IP1}$Exh [**max** d$_2$] 1many$_{card}$ d$_1$ girls **besides** Ann came]]]

There is a degree < contextual threshold such that removing Ann yields exactly this many girls-comers, and including her yields not exactly this many (only possible if it is bigger).

Both the cardinal and the proportional reading get the additive (positive inference).

5. *Besides* and *most*

- *Most* is compatible with *besides*.
- (101) is compatible with Ann coming or not.
- Following my earlier considerations, I am going to assume that it is ambiguous.

(101) Most girls besides Ann came.

- *Most* is a non-monotonic operator and we do not predict its incompatibility with *besides*.
- But the meaning we predict is not quite right.
- Assume the standard 'more than half' meaning for *most*
- If we exclude Ann, then more than half came
- If we include her, then not more than half came.
- By giving Exh the highest scope, we predict the negative inference for Ann.
- But this is not the correct meaning.
- Including Ann does not have to render the *most*-claim false.

5.1 The idea.

Let's assume the standard quantificational analysis for *most* that treats it as a superlative of *many* (Heim1999; Hackle 2009; Gajewski 2010 etc.).

I am going to derail from Hackle 2009 (because I could not make *besides* work in his system) and assume that *est* moves to the top of the clause.

Est composes with a predicate of degrees and states that there is a degree that this predicate has such that all other alternative predicates of degrees do not have.

The alternatives are derived via the focus alternatives

I am going to assume that the alternative for *came* is *did not come*

(102) Most girls $came_F$.

(103) $[_{IP2}$ est_{C4} $[_{IP1}$ 1 d many girls $came_F]]$

(104) $[\![est_{Cn}]\!]^{g,w} = \lambda D.\ \exists d[D(d)\ \&\ \forall D'\ [D' \in g(n)\ \&\ D' \neq D \rightarrow \neg D'(d)]]$

(105) $[\![\ IP_1]\!]^{g,w} = \lambda d.\ \exists X\ [|X|=d\ \&\ X \text{ is a girl}\&\ X \text{ came}]$

(106) $g(4) = \{\lambda d.\ \exists X\ [|X|=d\ \&\ X \text{ is a girl}\&\ X \text{ came}]$
$\lambda d.\ \exists Y\ [|Y|=d\ \&\ Y \text{ is a girl}\&\ Y \text{ did not come}]\}$

(107) $[\![(102)]\!]^{gw} =\ 1 \text{ iff } \exists d\ [\exists X\ [|X|=d\ \&\ X \text{ is a girl}\&\ X \text{ came}]\ \&$
$\neg\exists Y\ [|Y|=d\ \&\ Y \text{ is a girl}\ \&\ Y \text{ did not come}]$

One context where these truth conditions yield true is given in (108).

There is a degree (in fact two such degrees: 3 and 4) such that there is a plurality of comers with that cardinality among girls and there is no plurality of girls who did not come with that cardinality.

(108) Context: comers among girls: A, B, C, D
Non-comers among girls: E, F

There is a universal quantifier in the semantics of *est*.

If we single out this universal quantifier at LF and place Exh above this universal, we can capture the negative inference for the individual(s) introduced by *besides,* while making it compatible with these individuals not making the crucial difference in the overall distribution of the comers.

There is also an existential degree quantifier.

This means we can apply our strategy to derive the reading we empirically characterized as additive (the positive inference reading) by inserting the max operator

5.2 Deriving the exceptive reading

Let's single out the universal and the existential quantifiers (standardly encoded into the meaning of *est*) at LF. The universal quantifier is contributed by est, but the existential is contributed by a different element, we represented in (109) as $\exists_d$.

(109) $[\exists_d$ [2 [est$_{C4}$ d$_2$] [$_{IP1}$ 1 d$_1$ many girls came$_F$]]]
(110) $[\![est]\!]^{gw} = \lambda d.\lambda D_{<d,t>}.\ D(d)\ \&\ \forall D'\ [D' \in g(n)\ \&\ D' \neq D \rightarrow \neg D'(d)]]$
(111) $[\![\exists_d]\!]^{gw} = \lambda D.\ \exists d[d>0\ \&\ D(d)]$
(112) $g(C_4)=\{\lambda d.$ d-many girls came, $\lambda d'.$ d'-many girls did not come$\}$

Now we can factor in *besides*.

(113) [$_{IP5}$ $\exists_d$ [2 [$_{IP3}$ EXH$_{ALT2}$ [$_{IP2}$ est$_{C4}$ d$_2$ [$_{IP1}$ 1 d$_1$ many girls besides$_{F2}$ Ann came$_F$]]]]]

The prejacent of EXH

(114) $[\![IP_2]\!]^{gw}$ = 1 iff [$\exists$X [|X|=g(2) & X is a girl & $\neg$X° Ann & X came] &
$\neg\exists$Y [|Y|=g(2) & Y is a girl& $\neg$Y° Ann & Y did not come]

EXH negates the only alternative, the result of this negation is below:

(115) [$\neg\exists$Z [|Z|=g(2) & Z is a girl & Z came] $\vee$
$\exists$A [|A|=g(2) & A is a girl & A did not come]

The first disjunct is incompatible with the prejacent (due to the fact that existential quantifier is upward entailing), so the meaning of IP$_3$ can be reduced to this:

(116) $[\![IP_3]\!]^{gw} = 1$ iff [∃X [|X|=g(2) & X is a girl & ¬X° Ann & X came] &
¬∃Y [|Y|=g(2) & Y is a girl & ¬Y° Ann & Y did not come] &
∃Z [|Z|=g(2) & Z is a girl & Z did not come]

Binding the degree, we get (117) as the overall denotation for the entire sentence.

(117) $[\![(113)]\!]^{gw} = 1$ iff ∃d[d>0 &
[∃X [|X|=d & X is a girl& ¬X° Ann & X came] &
¬∃Y [|Y|=d & Y is a girl& ¬Y° Ann & Y did not come] &
∃Z [|Z|=d & Z is a girl& Z did not come]

These truth-conditions correctly capture the reading of *besides* that we characterized as exceptive.

The sentence is predicted to be true even if Ann does not make the crucial difference, as long as she is **not** among the comers.

Let's consider the scenario in (118). In this case, whether we exclude or include Ann, more than half girls came.

(118) Context: comers among girls: Bella, Johana, Alex, Jack, Dan
Non-comers among girls: Jane, Mary, Ann

However, our truth conditions correctly predict that the sentence is true in this scenario.

This is because there is a cardinality, namely, 3 such that there is a plurality of comers with this cardinality and if we exclude Ann, no plurality of non-comers has this cardinality, but if we include Ann, then there is group of non-comers that has this cardinality.

5.3 Deriving the contrast with *but* and *except*

(119) *Most girls but Ann came.

The alternatives are computed differently in this case.

Thus, the truth conditions would require that there is a plurality of comer (not overlapping Ann); and this plurality has the cardinality that no plurality of comers not overlapping with Ann has, but putting Ann back into the domain and removing any other individual quarantines that there is a plurality of non-comers with this cardinality.

(120) ⟦(119)⟧^{gw} = 1 iff ∃d[d>0 &
[∃X [|X|=d & X is a girl& ¬X° Ann & X came] &
¬∃Y [|Y|=d & Y is a girl& ¬Y° Ann & Y did not come] &
∀M[M≠Ann →∃Z [|Z|=d & **¬Z° M** & Z is a girl& Z did not come]

No context will make it true.

Let's consider (118).

The cardinality 3 is such that there is a plurality of comers with this cardinality and no cardinality of non-comers that does not overlap Ann has this cardinality.

But putting Ann back in the domain while removing someone else does not guarantee that there will be a non-comers plurality with this cardinality.
If we remove Jane or Mary (also non-comers), while putting Ann back, the overall distribution of voters and non-comers will remain the same.

The only context that would make it true is the one where Ann is the only non-comer.
But this is blocked by a pragmatic constraint that prohibit the use of *most* when the conditions for using *all* are met.

With the bigger conceptual exceptions we can make it work…

(121) We are available **most** days **but Sundays**. Also, we are unavailable on national holidays.

There are 365 days in a year, 65 Sundays.

Imagine there are 10 national holidays.

They are open 290 days a year

If we remove Sundays, there is a number of open days (11), such that closed days do not reach.

But if we remove Tuesdays, while putting Sundays back, of course the number 11 of closed days will be reached.

As long as this is the biggest exception and the alternatives can be pruned, it is predicted to derive the correct meaning.

5.4 Deriving the additive reading

We can use the general strategy of deriving the positive inference with all modified numerals.

We merge a maximality operator in the constituent below the existential quantifier over degrees and place EXH above this constituent.

(122) Most girls besides$_F$ Ann came$_F$.

(123) [$\exists_d$ [$_{IP5}$ 3 [$_{IP4}$ EXH$_{ALT2}$ [$_{IP3}$ max d_3 [$_{IP2}$ 2 est$_{C4}$ d_2 [$_{IP1}$ 1 d_1 many girls besides$_{F2}$ Ann came$_F$]]]]]]

Conclusion

I presented some preliminary ideas about how to derive the attested meaning of *besides* with most, many and few.

What made these derivation possible is the fact that *besides* introduces a very limited set of alternatives.

That led to the idea that maybe the acceptable cases of *most*, *many* and *few* with except and but are cases when the alternatives are allowed to be pruned.

But I did not present any theory of when and why the alternatives are allowed to be pruned.

6. References

Romero, Maribel. 2015. The conservativity of *many*. In *Proceedings of the 20th Amsterdam Colloquium*, ed. T. Brochhagen, F. Roelofsen & N. Theiler, 20–29. Amsterdam: University of Amsterdam.

Westerståhl, Dag. 1985. Logical constants in quantifier languages. *Linguistics and Philosophy* 8: 387–413.

Partee, Barbara H. 1988. Many quantifiers. In *Proceedings of the Fifth Eastern States Conference on Linguistics*, ed. J. Powers & K. de Jong, 383–402. Columbus: The Ohio State University.

Heim, Irene. 1999. *Notes on superlatives*. Manuscript, MIT.

Hackl, Martin. 2009. On the grammar and processing of proportional quantifiers: *most* versus *more than half*. *Natural Language Semantics* 17: 63–98.

Hirsch, Aron. 2016. An unexceptional semantics for expressions of exception. In *University of Pennsylvania Working Papers in Linguistics* 22.

Hackl, Martin. 2000. *Comparative quantifiers*. PhD dissertation, Massachusetts Institute of Technology.

Gajewski, Jon. 2013. An analogy between a connected exceptive phrase and polarity items. In E. Csipak, R. Eckardt, M. Liu & M. Sailer (eds.), *Beyond "any" and "ever": New explorations in negative polarity sensitivity*, 183–212. Berlin: de Gruyter.

García Álvarez, Isabel. 2008. *Generality and exception: A study in the semantics of exceptives*. PhD dissertation, Stanford University.

Crnič, Luka. 2021. Exceptives and exhaustification. In *Proceedings of WCCFL 39*.

Gajewski, Jon. 2010. Superlatives, NPIs and *most*. *Journal of Semantics* 27(1): 125–137. https://doi.org/10.1093/jos/ffp013

Peters, Stanley & Dag Westerståhl. 2006. *Quantifiers in language and logic*. Oxford: Oxford University Press.

Peters, Stanley & Dag Westerståhl. 2023. The semantics of exceptives. *Linguistics and Philosophy* 46: 197–235.

Buccola, Brian & Benjamin Spector. 2016. Modified numerals and maximality. *Linguistics and Philosophy* 39(3): 151–199.

von Fintel, Kai. 1989. Exception phrases. In *University of Massachusetts Occasional Papers in Linguistics* 15, 1–8.

von Fintel, Kai. 1993. Exceptive constructions. *Natural Language Semantics* 1(2): 123–148.

Mayr, Clemens & Ekaterina Vostrikova. 2023. A unified semantics for exceptive-additive *besides*. In *Proceedings of SuB 27 (2022)*.

von Fintel, Kai. 1994. *Restrictions on quantifier domains*. PhD dissertation, University of Massachusetts Amherst.