1 INTRODUCTION
Scalar and (ostensibly) non-scalar instances - one or two only?

'Normal Cases'
(1) Mary only invited ALEX.
(2) Mary only invited Alex to the PARTY.

Standard assumption: the assertive contribution of only: no (contextually
determined) alternative to the focus it associates with would yield truth if
replaced for the focus

Alternative semantics (to be assumed here): only quantifies over the
propositions obtained by replacing its focus with the contextually given
alternatives to it

A Roothian assertion for 'only' [to be disposed of]:
\[ \exists w. \forall p ((p \in C \land \neg (p \in C)) \rightarrow \neg p(w)) \]
where C is the set of propositions given by replacing for the focus
phrase in each of the contextually given alternatives (a subset of the
expressions of the semantic type of the focus phrase) in turn
see Nooth for a recursive definition of focus - i.e. the construction of C

(1) Mary only invited ALEX.
\[ \exists w. \forall p ((p \in C \land \neg (p \in C)) \rightarrow \neg p(w)) \]
\[ \exists w. \forall p ((p \in \{ [[Mary invited ALEX]], [[Mary invited Tom]], [[Mary invited Bill]] \}) \rightarrow \neg p(w)) \]

The 'positive component' of the meaning of only, which often (but not
always) appears, is standardly assumed not to be part of the assertion
itself

Mary only invited ALEX \rightarrow Mary invited Alex

How exactly to derive it is a subject of ongoing debate (e.g. Herburger

(3) Did Mary only invite ALEX?
(4) It is unlikely that Mary only invited ALEX.

- positive component (often) survives where the clause containing only is
  not asserted
- but is apparently not always backgrounded
- and seems to disappear in some cases under embedding [more to follow...]

1.1 SCALAR USES

(5) (After 10 years at the university)
Bill only has a MASTER'S DEGREE.

(6) John only got his degree from CAL STATE.
\[ \{ [[John got his degree from LA Community College], [[California State]], [[UCLA]], [[USC]], [[Stanford]] \} \]

(7) I was only WATCHING TV (when you called).
(8) I only have a SIX. [in a game where high card wins - due to van
Rooy (2002)]

- Not all alternatives excluded: only 'stronger' ones, in some non-
  logical sense. Exclusion upward along a scale reflecting some (non-
  logical) ordering relation
  - That is 'weaker' 'lesser' than the alternatives is presupposed [as
    I'll argue]

1.2 CENTRAL CLAIMS

- there is just one lexical entry for (adverbial) only (e.g. Jacobs 1983, van
- exclusion is always of higher ranked members of a scale: full exclusion
  (e.g. as in (1)) is only accidental/apparent, though there is
  vagueness/context dependency regarding what the scale reflects (what
  ordering relation creates it)

(9) Formal definition of a scale (S): a (possibly) partially ordered set of
propositions C and a relation R defined for (at least) a subset of C X C.

  \[ (b < a \text{ means graphically that } a \text{ is strictly higher than } b \text{ on } S, \text{ and}
  \text{ formally that } R(a,b) \land \neg R(b,a). \text{ I use } p \in S \text{ (wrongly) as shorthand}
  \text{ for } p C C) \]

- this paper pays particular attention to the often ignored question of what
  presuppositions are required for a unified only
- and attempts to explain, as a function of the proposed unified semantics,
  the source of the (empirically driven) debate regarding what is responsible
  for the positive component of only's meaning
2.1 FAILURE

(10) #Bill graduated from high school six months ago, but he (still) only has earned a MASTER’S DEGREE.
(11) #I was only DELIVERING A BABY (when you called).
(12) #I only have a QUEEN [game of high card wins]
(13) Bill is only a novice/intermediate/expert marksman.
(14) Bill is only a sophomore/junior/senior
(15) Bill only got an A+ on the exam.

- Vagueness of low intentionally imported into the metalanguage: what counts as low should vary depending on the state of affairs

2.2 PROJECTION

The ‘scalar information’ survives in downward monotonic/non-assertive contexts.

(17) Did Bill only graduate from CAL SATE? (I thought he was an excellent student in high school/his parents were very rich)
(18) No faculty member here only graduated from CAL SATE.
(19) John doubts that Bill only graduated from CAL STATE.

2.3 BINDING

(20) John thinks that Stanford is free and admits anyone who applies, and he doubts that Bill only graduated from STANFORD.
(21) How is Bill doing in the air corps? Well, ‘Aeronaut’ is the rank given to novice pilots, and Bill is only an aeronaut.
(22) [To have even become a candidate, multiple certificates must be held. But beware…]

If a red certificate is easy to obtain, then most candidates will only have a red certificate. And if a blue certificated is easy to obtain,…
(1.e., there won’t be many candidates with more than easily obtained certificates)

2.4 CONTEXTS FOR SCALAR READINGS

The following ‘contexts’ force a reading for which a non-logical ordering is relevant, and/or the scalar presupposition becomes noticeable

2.4.1 MUTUALLY EXCLUSIVE ALTERNATIVES

(6) John only got his degree from CAL STATE.
at most one alternative can be true, given the uniqueness presupposition of ‘his degree’, and the fact that a given degree comes from exactly one place

the scalar reading is made the only one available either because of the pragmatics – why not assert the simpler ‘John got his degree from Cal State’, if that is all that is meant?
or because the ‘non-scalar’ reading would involve quantification over an empty domain (cf. the absurd alternative ‘John got his degree from Cal State and (John got his degree from) Harvard’), and hence be infelicitous or uninformative

that John got his degree from Cal State cannot be presupposed, or even the scalar reading fails to be informative [more to come]

2.4.2 Entailing Alternatives (And Scalar Implicatures)

(22) John only invited SIX people.
(23) John invited six people.

- w/ quantity implicature, () would convey the same information as the version w/ only, if no scalar presupposition were involved in the latter
- this isn’t enough to explain why the scalar presupposition/sense is so prominent – cf.

(24) Mary only invited JOHN AND BILL.
(25) Mary invited John and Bill. [on an exhaustive interpretation]

- apparently the scalar sense is less strong than in (22) – why?
- still, the fact that 24() and (25) are not equivalent shows that there is more to only (even in these ‘non-scalar’ cases), than exclusion/exhaustivity (cf. van Rooij 2002)
- precisely a scalar presupposition will be shown to exist (even) for such examples

2.4.3 Logically Compatible Alternatives – Both Scalar and ‘Non-scalar’ Readings Exist

(8) John only has a SIX.

Context 1: game of ‘high card wins’ Vs. looking for a lost deck of cards

- ordering relation reflects the value of the cards in the game
- the alternatives excluded are those in which John has some card better than a six (e.g., ‘John has a (six,) (eight, and) jack
- assertion: no p higher on the scale is true

Context 2: ordering relation reflects entailment:

John has the full deck

... assertion: no p higher on the scale is true

John has a two, ... John has a six, ...

- assumption: plurals as alternatives to singulars
- since [[(6)]] must be on the scale, and the ordering relation is entailment, every higher alternative will entail 6, and every lower alternative will be entailed by it (many conceivable alternatives are left off of the scale, but the correct truth conditions are derived)
- yields full exclusion

(26) Mary was congratulated by the dean, but Sally was only congratulated by the department chair.
(27) Mary was congratulated by many people, but Mary was only congratulated by the department chair.

- ‘full’ exclusion

- no lexical ambiguity for only is at work; just scales ordered by different (contextually determined) relations
- supported by the fact that full exclusion is an illusion even in (8)(Context 2) and (27): exclusion must likewise in them only be ‘upward’

(28) John only has a six, a jack, and a four.
(29) Mary was only congratulated by the department chair, her mother, and her advisor.

- ‘sub-pluralities’ (‘J has a six and a jack’) cannot be excluded, at pain of contradiction

- (cf. also ‘John only invited SIX people)
- and also from the fact that ()-like cases (‘non-scalar’/‘fully’ exclusive) also display that scalar presupposition

3 Scalar Presuppositions in ‘Non-scalar’ Instances

What would the scalar presupposition encode in the case that the ordering relation is entailment? – a quantitative judgment: is’t very strong relative to the alternatives

(30) Of my three cousins, #Only Alex, Sue, and Eric came to the wedding.

Demonstrating the presupposition is not so easy:

i. oddness of an uppermost scalar alternative could be due, one way or another, to the domain of quantification of only being empty
ii. moreover, there are contexts in which an arbitrarily high – so long as not uppermost – alternative can felicitously appear as the focus of only
Did many people come to the meeting?
(a) Yes. #Only John, Mary, ..., and Bill came.
(b) No. Only John, Mary, ..., and Bill came.

(a) Only John, Mary, ..., and Bill came to the meeting, a surprisingly high turnout.
(b) Everyone except/excluding Alex, Sue, ..., and Eric came to the meeting, a surprisingly high turnout.

On standard accounts, if the domain of (relevant) individuals is {J, M, B, A, S, E}, the first clauses of (32a) and (32b) "yield" the same meaning (i.e. the set of worlds in which exactly John, Mary, and Bill came to the meeting).

4 THE OTHER PRESUPPOSITION
Where does the positive component of only's meaning come from?

Did Mary only invite JOHN?
It is unlikely that Mary only invited JOHN.

Mary only invited JOHN.
Assertion: No alternative to Mary invited JOHN is true
Presupposition: Mary invited John
→ accounts for the fact that Mary invited John is 'conveyed' by (33) and (34)
→ at the same time, it has often been noted (Horn, Schwarzschild) that the positive component of only's meaning doesn't seem to be taken for granted

Who did Mary invite?
Only John.

4.1 PRAGMATIC SCALES
Perhaps more seriously (at least if you buy the arguments for a unified only): for many pragmatically ordered scalar uses of only, Horn's presupposition won't work:

It is unlikely that Bill only got his BA from CAL STATE (his parents were very rich, he was a great student, etc.)
→ precisely that Bill got his BA from Cal State is called into doubt

Did Bill only get his BA from CAL STATE?
→ if that Bill got his BA from Cal State is presupposed, it should be incoherent to ask whether he got it from somewhere else (i.e. better)

Sally got married yesterday, and
It is unlikely that/there is no way that she only got married to a POOR TAILOR. (She was looking to marry into money)

Did Sally only marry a POOR TAILOR?

Generalization: the positive component disappears on (true) pragmatic scale uses when only is in a downward entailing context or unasserted clause

→ This, fact, and the implication of the positive component in normal, unembedded cases, follows from the disjunctive presupposition proposed

Mary only got her BA from CAL STATE
ps: Mary got her BA from Cal State or Mary got her BA from someplace 'better' assertion: Mary didn't get her BA from anywhere 'better'
p + ass: Mary got her BA from Cal State.

It is unlikely that Mary only got her BA from CAL STATE.
ps: Mary got her BA from Cal State or Mary got her BA from someplace 'better'
assertion: It is unlikely that Mary didn't get her BA from anywhere 'better'
→ It is likely that Mary got her BA from somewhere better

Did Sally only marry a POOR TAILOR (yesterday)?
ps: Sally married a poor tailor or Sally married someone 'better' question: Did she marry nobody 'better'?

4.2 ENTAILMENT SCALES

Did Mary only invite ALEX?
(45) It is possible that Mary only invited ALEX.
**Prediction:** the clause in which only appears is still ‘presupposed’ (because the presupposition entails that clause, in virtue of the higher alternatives being ones that entail it):

Ps: Mary invited Alex, or some alternative higher on the scale holds

\[
\begin{align*}
\text{Mary invited Alex, Tom, and Bill} \\
\text{Mary invited Alex and Tom, Mary invited Tom and Bill, Mary invited Alex and Bill} \\
\text{Mary invited Alex, Mary invited Tom, Mary invited Bill}
\end{align*}
\]

**Prediction:** wherever the scalar ordering relation does not reflect the entailment relations among the alternatives, the truth of \(\phi\) will not follow unless only \(\phi\) is asserted

4.3 **OTHER SUSPENDED/NON-PROJECTING \(\phi\) PRESUPPOSITIONS?**

- Geurts and van der Sandt (2004) question whether there is really a presupposition (to the effect) that Mary invited Alex in () and ()
- They attribute the positive component to an existential presupposition (triggered non-lexically, by focus itself) for simple cases

\[(44)\] Alex only invited MARY:
- \(p_{\text{source}}\): Alex invited someone
- \(p_{\text{truth}}\): Alex invited no (relevant) individual distinct from Mary
- cf. also Horn 1996

**On this account, the positive component only follows in case the only containing clause is an assertion**

\(\Rightarrow\) They offer a pragmatic account that explains some cases in which the clause containing only is not a matrix assertion, but yet its truth seems to follow (e.g. (45)) – but not all (as they admit) (e.g. (46))

\[(45)\] Alex doesn’t only like MARY.
\(\Rightarrow\) Alex likes Mary
\[(46)\] It is possible that Mary didn’t only invite ALEX.

4.4 **WHAT’S GOING ON HERE (WITH THE DATA)?**

\[(36)\] Who did Mary invite?
- Only Alex.

\[(47)\] It is possible that Mary only invited ALEX.
\[(48)\] Did Mary only invite ALEX? [Geurts and van der Sandt’s judgments]

\(\Rightarrow\) Specifically, in any context in which the scale fails to reflect entailment relations

For example: suppose that for Mary to have invited Alex and possibly not Tom or Bill represents the ‘worst’ state of affairs – better if at least one of the others was invited.

\[
\begin{align*}
\text{Mary invited Alex, Tom, and Bill, Mary invited Alex and Bill, Mary invited Alex and Tom, Mary invited Tom} \\
\text{Mary invited Bill, Mary invited Alex}
\end{align*}
\]

\(\Rightarrow\) full exclusion, but the presupposition reduces to an existential one

Ps: Mary invited Alex or Mary invited someone(s) ‘better’
- \(=\) Mary invited Alex or Mary invited Alex and Bill or… (etc., for each higher alternative)
- \(=\) Mary invited someone (of Alex, Tom, Bill)

\(\Rightarrow\) only can felicitously appear in answers to only-less wh-questions, (cf. van Rooy 2002), while still being fully exclusive
\(\Rightarrow\) likewise Geurts and van der Sandt’s intuitions about (47) and (48) can be explained

**SUMMARIZING:**

- for all cases in which the ordering relation reflects entailment, there should be a ‘presupposition’ of \(\phi\)
- the information that \(\phi\) holds will disappear in non-assertive contexts if but only if the ordering relation compares the alternatives on any qualitative basis, i.e. a non-entailment reflecting ordering – a different prediction than Geurts and van der Sandt

\(\Rightarrow\) problem – devising solid empirical ways to settle what the ordering relation is in a given context (a subtle matter), and test the predictions
the bright side: there is much disagreement about the data, and nobody accounts for all of it, so vagueness (for now) isn’t the worst option

5 SOME REMAINING PROBLEMS?

5.1 MISSING READINGS – ORDERING RELATIONS

Does the class of possible ordering relations need to be constrained, or does anything go?

(49) John only lost FOUR cards. (#Bill lost two, so he is the winner.)

ordering relation: pEq iff p worlds represent less desirable states of affairs than q worlds

→ possible explanation: contradictory assertion
→ evidence for ‘at least’ theory of numerals?

(50) Context: The less prestigious/high paying job a candidate last held, the better (since they can be paid less)

Sally was only a DOCTOR. #Let’s hire Bill, who was (even) a janitor.

→ possibly due to the (high) conventionalization of certain scales.

5.2 ONLY OUT OF ADVERBIAL POSITION

(51) (Though my sister was hoping to marry into money/prestige, when it came time to tie the not–…)

(a) She only married a JANITOR.
(b) #She married a janitor only.
(c) ?Only a janitor married her.

→ possibly correlated with the (non-‘scalar’) behavior of only-like particles in languages in which they never appear adverbially: are there two onlys after all?

WORKS CITED/CONSULTED


