Evaluation and Consumption

Charley Beller & Erin Zaroukian Johns Hopkins University {beller/zaroukian}@cogsci.jhu.edu

1 Introduction

- There is a sharp contrast between the interpretation of bare plurals (e.g. *cookies*) and singular indefinites (e.g. *a cookie*) when they occur as object of an evaluative verb such as *like*
 - (1) a. John likes cookies.
 - b. #John likes a cookie.
 - Bare plural in (1a) John is favorably disposed toward cookies in general
 - Singular indefinite in (1b) John is favorably disposed toward one specific cookie
- Notice a similar pattern with habituals:
 - (2) a. John eats cookies.
 - b. #John eats a cookie.
- But a number of constructions which use an evaluative verb and a singular indefinite object **do not** lead to a specific reading of the object:
 - (3) a. John likes a cookie after dinner.
 - b. John likes a good cookie.
 - c. John likes a cookie as much as the next person.
- These constructions do not have the same effect on habituals:
 - (4) a. John eats a cookie after dinner.
 - b. #John eats a good cookie.
 - c. #John eats a cookie as much as the next person.
- **Q.** What is it about evaluative verbs and the modifications in (3) that causes this specificity contrast?
- A. We provide an analysis drawing on the analysis of habituals in Rimell (2004) where the structures in (3) provide/induce a restriction on situations, allowing the singular indefinite to avoid wide scope/specific reading

2 Domain restriction

2.1 Habituals (Rimell, 2004)

- Rimell (2004): "Habitual sentences contain an episodic verb and express generalization over multiple episodes"
- Habituals with overt quantificational elements, (5b), need to be distinguished from simple habitual sentences, (5a)
 - (5) a. #Mary drinks a beer.
 - b. Mary usually drinks a beer when she's at Dempsey's Pub.
- Simple habituals like (5a) involve generalization due to a scopally inert affix of the matrix verb, which is a generalization operator (∃_{sufficient}) over stages of individuals; the singular indefinite QRs and takes widest scope¹
 - Wide scope singular indefinite receives specific reading, but you typically don't drink the same beer multiple times $\rightarrow \#$
- Overtly quantified habituals like (5b) have a tripartite logical form
 - (6) USUALLY_s [M at DP in s] $\exists x[\text{beer}(x) \& M \text{ drinks } x \text{ in } s]$ $Q \qquad restrictor \qquad nuclear scope$
 - Indefinite in nuclear scope is quantified over by $usually \rightarrow indefinite$ does not have wide scope, different beer for each stage
- When a quantifier has no restrictor overtly specified it is supplied contextually (7a)
- Presence of a restrictor licenses a covert quantifier (7b)
 - (7) a. Mary often eats roast beef sandwiches. (supply restrictor)
 - b. Mary eats green beans when she's hungry. (supply AdvQ, 'generally')
- Speakers can infer either a covert restrictor or a covert quantifier
- But they (typically) cannot infer both if they are given only a nuclear scope $\rightarrow \#(5a)$

¹Rimell decomposes (5a) as:

 $[\]exists x^o[beer'(x^o) \land \exists_{\text{sufficient}} y^s. R(y^s, m) \land \exists z^s. R(z^s, x^o) \land drink'(z^s, y^s)]$

^{&#}x27;There is a beer such that there are sufficient Mary-stages that drink stages of that beer for us to generalize to Mary herself.'

2.2 Extension to evaluatives

- The evaluative predicates we are concerned with are statives, not habituals
- But the statives seems to be a generalization over {stages, situations, eventualities} in which the judge experiences the object of evaluation positively
- Just as with habituals the quantification has less than universal force $(\exists_{\text{sufficient}}, \text{ not } \forall)$
 - e.g. It can be true that John likes cookies, even if he is not positively disposed toward them at every moment
 - Conversely, for the sentence to be true there must be some sufficient number of moments in which he IS so disposed
 - (8) John likes cookies. ≈'There are sufficient John-moments that like cookie-moments for us to generalize to John himself'
- If evaluative statives pattern with habituals generally, then we should see the same licensing of indefinites when there is an overt restrictor²
- This is exactly what we find in sentences like (3a)
 - (4a) John eats a cookie after dinner.
 - (3a) John likes a cookie after dinner.
- \rightarrow So we extend Rimell's analysis to evaluatives restrictor/quantifier allows non-specific readings
- Tripartite structures should be as in (9) and (10)
 - (9) GEN_s [s is after dinner] $\exists x [cookie(x) \text{ and J eats } x \text{ in s}]$
 - (10) GEN_s [s is after dinner] $\exists x [cookie(x) \text{ and J likes } x \text{ in s}]$
- But while (9) is a good representation of (4a), (10) does not represent the most natural interpretation of (3a)

- (i) a. # Suzanne usually likes a cookie.
 - b. # Suzanne usually eats a cookie.

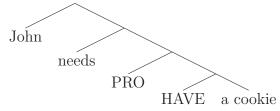
²Indefinites in evaluative sentences are not generally licensed by an overt quantificational adverb, they still seem to require a restrictor (ia), but then the same is true of the habitual sentence (ib).

- 'Fickleness' General 'likes' should stay relatively constant (or have a good reason for changing) – see also (11), where the referring expression forces the adverb to modify 'liking'
 - (11)#I like the president when it's raining.
- In the most natural interpretation of (3a), the adverbial does not directly apply to 'liking'
- Relatedly, John doesn't simply feel positively about a cookie in (3a), he feels positively about having a cookie

3 Complement structure

7 January 2012

- Intensional Transitive Verbs (Schwarz, 2008)
 - Schwarz (2008) need-type Intentional Transitive Verbs (ITVs) always take a propositional complement
 - E.g. (12), ambiguous between (12a) and (12b)
 - John needed a cookie after dinner. (12)
 - There was a time after dinner at which John needed a cookie
 - John's need is to have a cookie after dinner
 - Other verbs, even *look-for*-type ITVs have only a single reading
 - (13)John ate a cookie after dinner.
 - only: There was a time after dinner at which John ate a cookie
 - (14)John looked for a cookie after dinner.
 - only: There was a time after dinner at which John looked for a cookie
 - The explanation Schwarz offers is that need-type ITVs can take a covert small-HAVEclause argument
 - John needs a cookie. (15)



• Adverbials can attach high or low with ITVs, as demonstrated by the ambiguity in (12)

- (12a) John [needed [PRO HAVE a cookie] after dinner] (high attachment)
- (12b) John needed [[PRO HAVE a cookie] after dinner] (low attachment)

NOTE: We use HAVE above, but also there is also a relational variable R that can be filled in by the context

- a. I need a shower. (≠ have a shower)
 b. John needs a marathon. (??have a marathon)
- (17) a. I need [PRO R a shower].
 - b. John needs [PRO R a marathon].
- These relations all appear to be ones of consumption for simplicity, we refer to these as *HAVE*-clauses

3.2 Extension to evaluatives

- Like is similarly ambiguous (18), while eat is not (13)
 - (18) John liked a cookie after dinner.
 - a. There was a time after dinner at which John liked (to have) a cookie
 (high)
 - b. What John liked was having a cookie after dinner (low)
- \rightarrow We propose that *like* can take *HAVE*-clause, similar to *need*-type ITVs

NOTE: Like is ambiguous in (at least) three ways – with high attachment of the modifier, the HAVE-clause may be absent (this is not a possibility for need-type ITVs)

- All attachment readings given below:
 - (19) John liked a cookie after dinner.
 - a. There was a time(s) after dinner at which John liked to have a cookie.³ (high, +HAVE, 'fickle')
 - b. There was a time(s) after dinner at which John liked a cookie.

(-HAVE, 'fickle')

- c. What John liked was having a cookie after dinner. (low, +HAVE)
- The *like*-modifying/high-attaching 'fickle' reading is compatible with a continuation like . . . though she may not have liked that cookie at other times
- The HAVE-modifying/low-attaching reading is compatible with a continuation like . . . when she was in college

³This reading can be difficult to arrive at, perhaps due to the higher naturalness of the other readings.

- \rightarrow HAVE-clause is present in felicitous/non-'fickle' readings of John likes a cookie after dinner
- Now we have an explanation for (3a)
 - Restrictor (after dinner) induces quantifier (GEN_s) , tripartite structure \rightarrow non-specific
 - Restricts *HAVING*, not *liking* (avoids 'fickle' reading)
 - (20) GEN_s [s is after dinner] $\exists x [cookie(x) \text{ and J likes } HAVE(x,J) \text{ in } s]$

4 Restricting situations

- (3) a. John likes a cookie after dinner.
 - b. John likes a good cookie.
 - c. John likes a cookie as much as the next person.
- We claim: (3b) allows a non-specific reading similar to (3a), but due to a different kind of restriction
 - Recall: in (3a), after dinner as restrictor (s is after dinner), induced tripartite structure \rightarrow non-specific
- First, consider (21)
 - (21) Amy: Sorry to stick you with so much work. Ben: That's okay. I like a challenge.
- Here there is an unmodified singular indefinite a challenge which does not require a specific reading (cf. I like challenges)
- What is special about this example? (cf. (1))
- The evocativeness of *challenge* easily lends itself to a *HAVE*-clause reading, one where the agent is the consumer of a challenge
- Same pattern with other 'evocative' nouns⁴:
 - (22) a. I like a mystery.
 - b. I like a puzzle.
 - c. I like a nap.
 - d. I like a massage.
 - e. I like a steam.

⁴Note that these are not felicitous out of the blue and seem best in discourses where the availability of the noun can be available to the liker, as in (21), where Amy supplies Ben's challenge.

- f. The police like a demonstration.
- Along the lines of Rimell:
 - (23) GEN_s [s is a challenge-HAVING situation] [I like s]
- Cf. Paraphrases I like for situations to be challenging, If a situation is challenging, I like it
- Here challenge is introduced in the restrictor, not nuclear scope, unlike (3a)/(20)
 - (20) GEN_s [s is after dinner] $\exists x [cookie(x) \text{ and } J \text{ likes } HAVE(x,J) \text{ in } s]$
- Below (3b) will receive a similar analysis, but restricted situations must meet some standard

4.1 (3b) John likes a good cookie.

- The most salient reading of (3b) restricts us to cookie-HAVING-situations that exceed some threshold of $goodness-good^*$
- cf. asserting that the cookie in question is 'good' (as opposed to bad) good
- This $good^*$ is similar to the adjective that modifies quantities, as in (24)
 - (24) a. John read a good ten books.
 - b. John saw a good number of geese.
 - = the quantity in question meets some cardinality standard (is sufficient or 'a lot')

 ≠ the ten books or the number of geese is 'good'
- Good* and good involve different prosody
 - (25) a. I like good cookies. (intersective good)
 b. I like a good COOKIE. (good*)
 c. I like a GOOD COOKIE. (intersective good)
- Adjectives like *white* can appear in this construction, but they are only felicitous under an intersective reading bearing stress (26c)
 - (26) a. I like white shirts. (intersective white)
 b. #I like a white SHIRT. (white*)
 c. I like a WHITE SHIRT. (intersective white)

- This follows from $good^*/white^*$ as situation modifiers: situations can be 'good', but they cannot be 'white'
 - (25b) GEN_s [s is a cookie-HAVING situation and s exceeds a threshold for goodness] [I like s] 'I like a cookie-HAVING situation that is good.' $(good^*)$
 - (26b) GEN_s [s is a shirt-HAVING situation and s exceeds a threshold for whiteness] [I like s] #'I like a shirt-HAVING situation that is white.' $(white^*)$
- Intersective adjectives do not modify situations directly they modify the object within the situation a cookie can be 'good', just as a shirt can be 'white'
 - (25c) GEN_s [\exists some cookie x in s and x is good] [I like HAVE(x,I) in s] 'I like a cookie-HAVING situation if the cookie is good.' (intersective good)
 - (26c) GEN_s [\exists some shirt x in s and x is white] [I like HAVE(x,I) in s] 'I like a shirt-HAVING situation if the shirt if white.' (intersective white)
- More on $good^*$:
- Ferreira (2005) habitual operator is a covert definite determiner over pluralities of events $\rightarrow good^*$ as a modifier of pluralities of events
- Similarly, the good* of quantity in (24) modifies pluralities of objects
 - (24) a. John read a good ten books.
 - b. John saw a good number of geese.
- Following Ferreira, $good^*$ would selectively modify only pluralities of events. In our current system that translates to licensing a covert quantifier by providing an overt restrictor. $Good^*$, then, is a situation restrictor and as such introduces a tripartite structure which allows for a non-specific reading.
- Compare two uses of *qood**
 - (27) I like a good cookie.
 - (28) I read a good ten books.
- Again, neither directly modifies cookie/books neither the cookies or the books themselves are good, rather it's something about the 'sufficiency' of the situation
- (27): sufficient(cookie consuming situation)
- (28): sufficient(cardinality of books read)

4.2 (3c) John likes a cookie as much as the next person.

- Similar to (3b) restrict to cookie-*HAVING* situations that meet some standard (here, presumably some average acceptability)
 - (29) GEN_s [s is a cookie-HAVING situation and s meets a standard of acceptability] [J likes s]
- But how do you arrive at this compositionally?
- (3c) is likely idiomatic, as suggested by the infelicity of paraphrases and similar expressions in (30).
 - (30) a. #John likes a cookie the same amount as the next person.
 - b. #John likes a cookie more than the next person.
- Note: (3c) quantifies over multiple people, and it is unlikely that a large number of people would have feelings about the same cookie (cf. (32b) with reference to a widely-known figure, which many people are likely to have feelings about)
 - (31) John likes a cookie as much as {the next person/anyone}
 - (32) a. #I like a cookie as much as John.
 - b. I like the president as much as {the next person/John}.

5 Conclusion

- We applied a Rimell-style analysis of non-specific readings of singular indefinites with evaluatives tripartite structure allows low binding of indefinite → non-specific reading
 - (3) a. John likes a cookie after dinner.
 - b. John likes a good cookie.
 - c. John likes a cookie as much as the next person.
 - In (3a) like Rimell, adverbial as restrictor, but here it restricts HAVING situations (not just liking situations)
 - GEN_s [s is after dinner] $\exists x[\operatorname{cookie}(x) \text{ and J likes } \operatorname{HAVE}(x, \! \mathbf{J}) \text{ in } s]$
 - In (3b) $good^*$ as restrictor (to situations of cookie-HAVING that exceed some threshold of goodness) OR good as restrictor (to situations of good-cookie-HAVING)
 - $-GEN_s$ [s is a cookie-HAVING situation and s exceeds a threshold for goodness] [J likes s]
 - $-GEN_s \exists x [cookie(x) \text{ in } s \text{ and } x \text{ is good}] [J \text{ likes } HAVE(x,J) \text{ in } s]$
 - In (3c) as much as the next person as restrictor (to cookie-HAVING situations that meet some average standard)
 - GEN_s [s is a cookie-HAVING situation and s meets a standard of acceptability] [J likes s]

- Recall that habituals do not take HAVE-clause complements for $good^*/as$ much as the next person to apply to \rightarrow (4b) and (4c) are infelicitous
 - (4) a. John eats a cookie <u>after dinner</u>.
 - b. #John eats a good cookie.
 - c. #John eats a cookie as much as the next person.
- Plus, it is unclear what standard of goodness eating could be compared to
- But cookie-eating situations can be evaluated by other modifiers⁵
 - (33) John eats a mean cookie.

 'John's cookie-eating meets some standard of impressiveness.'

• Innovations

- Evaluative like licenses tripartite structures like habituals
- Evaluative like allows a null HAVE-clause, similar to need-type ITVs
- good*, as much as the next person restrict situations, lead to different tripartite structure put cookie in restrictor, not nuclear scope (cf. Krifka et al., 1995)

• Future directions

- Could there be some tighter connection between *HAVE*-clause readings and non-specific readings (e.g. could *HAVE*-clauses directly license non-specific readings)?
- Can this analysis be brought to bear on other instances of licensing by modification (Dayal, 2004; Ferreira, 2005, a.o.)
- Is the difference between adverbials (e.g. *after dinner*) and situation evaluators (e.g. *qood*) in the restrictor meaningful?

6 Acknowledgments

For their helpful discussion, we are indebted to Kyle Rawlins, Kristen Johannes, Mike Oliver, Lilia Rissman, Rajesh Bhatt, Greg Carlson, Christine Gunlogson, Valentine Hacquard, Chris Kennedy, and the audiences at Sinn und Bedeutung 16 and WECOL 2011.

(i) #John likes a mean cookie.

⁵Cookie-liking situations cannot, presumably since it is not evaluable by a third party:

^{&#}x27;John's cookie-liking meets some standard of impressiveness.'

References

- Dayal, Veneeta. 2004. Licensing by modification. *Ilha Do Desterro* special issue on Semantics: Lexicon, Grammar Use, a Brazilian journal on language/linguistics, literature, and cultural studies in English:217–238.
- Ferreira, Marcelo. 2005. Even quantification and plurality. Doctoral Dissertation, Massachusetts Institute of Technology.
- Krifka, Manfred, Francis Jeffry Pelletier, Gregory N. Carlson, Alice ter Meulen, Gennaro Chierchia, and Godehard Link. 1995. Genericity: An introduction. In *The generic book*, ed. Gregory N. Carlson and Francis Jeffry Pelletier, chapter 1, 1–124. Chicago and London: The University of Chicago Press.
- Rimell, Laura. 2004. Habitual sentences and generic quantification. In *Proceedings of WC-CFL* 23, 663–676.
- Schwarz, Florian. 2008. On needing propositions and looking for properties. In Proceedings from Semantics and Linguistic Theory 16, ed. M. Gibson and J. Howell, 259–276. Ithaca, NY: CLC Publications.