Evaluating singular indefinites

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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. (kind reading)
b. # John likes a cookie. (#specific reading)

- As shown in (1), (1a) with a bare plural indicates that John is favorably disposed toward cookies in general. (1b), however, only allows a reading where John is favorably disposed toward one specific cookie.

- Notice a similar pattern with habitual readings

(2) a. John eats cookies.
b. #John eats a cookie.

- There are, however, a number of constructions which use an evaluative verb and a singular indefinite object which do *not* lead to a specific reading of the object, shown in (3).

(3) a. John likes a cookie after dinner.
b. ? John likes to have a cookie.
c. John likes a good cookie.
d. 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 to have a cookie.
c. # John eats a good cookie.
d. # 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 be quantified over (i.e. avoid wide scope).

2 Specificity

- For simplicity we assume that singular indefinites are quantificational (introduce $\exists$), and that wide scope $\exists \approx$ specific (Krifka et al., 1995)
- This is compatible with Kratzer (1998), where indefinites are ambiguous between a choice function (results in specific reading, or sometime intermediate scope when bound by quantification subject) and a quantifier reading (quantifier reading has local scope)
- Choice function "applies to any non-empty set and yields a member of that set" (Reinhart), give specific reading (except... not relevant here, probably)

(5) John ate a cookie
  a. Choice function: ate(john,f(a cookie)) → *John ate a certain cookie.*
  b. Quantifier: $\exists$ x: cookie(x) & ate(john,x) → *There is a cookie that John ate.*

3 Domain restriction

3.1 Habituals (Rimell, 2004)

- "Habitual sentences contain an episodic verb and express generalization over multiple episodes" – (Rimell, 2004)
- Rimell argues that habituals with overt quantificational elements, (6b), need to be distinguished from what she calls *simple habitual sentences*, (6a)

(6) a. # Mary drinks a beer. (#specific)
  b. Mary usually drinks a beer when she's at Dempsey's Pub.

- Overtly quantified habituals have a tripartite logical form

(7) USUALLY$_s$ [M at DP in s] $\exists x$[beer(x) & M drinks x in s]
  Q *restrictor* *nuclear scope*

- When a quantifier has no restrictor overtly specified it is supplied contextually (8a).
- Presence of a restrictor licenses a covert quantifier, (8b)

(8) 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
- Rimell argues that simple habituals do not have a scope taking quantificational element → no tripartite structure
- Instead she proposes that generalization is due to a scopally inert affix of the matrix verb, a generalization operator ($\exists_{\text{sufficient}}$) over stages of individuals

(9) Mary drinks beer. (habitual)
$\exists_{\text{sufficient}} y^s.R(y^s, m) \wedge \exists z^s.R(z^s, b) \wedge drink'(z^s, y^s)$
'There are sufficient Mary-stages that drink beer-stages for us to generalize to Mary herself.'

- QR-ing the indefinite object gives it widest scope, resulting in a specific reading

(10) #Mary drinks a beer.
$\exists x^o[beer'(x^o) \wedge \exists_{\text{sufficient}} y^s.R(y^s, m) \wedge \exists z^s.R(z^s, x^o) \wedge drink'(z^s, y^s)]$
'There is a beer such that there are sufficient Mary-stages that drink stages of that beer for us to generalize to Mary herself.'

3.2 Extension to evaluatives

- The evaluative predicates we are concerned with are statives, does a similar generalization take place?
- Yes, the stative 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 ($\exists_{\text{sufficient}}$, not $\forall$)
- 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

(11) 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 restrictor[1]
- This is exactly what we find in sentences like (3a), repeated in (12b)

(12) a. John eats a cookie after dinner.
b. John likes a cookie after dinner.

- Tripartite structures should be as in (13a) and (13b)

(13) a. GENs [after-dinner(s)] $\exists x$[cookie(x) and M eats x in s]
b. GENs [after-dinner(s)] $\exists x$[cookie(x) and M likes x in s]

- But while (13a) is a good representaiton of (12a), (13b) does not represent the most natural interpretation of (12b)
- As discussed above – In (3a), the adverbial is difficult to felicitously apply to 'liking', general 'likes' should stay relatively constant (or have a good reason for changing), as attested in the strangeness of (14), where the referring expression forces the adverb to modify 'liking'.

(14) #I like the president when it's raining.

- And notably – John doesn't simply feel positively about a cookie in (12b), he feels positively about *having* a cookie

4 Complement structure

4.1 Intensional Transitive Verbs (Schwarz, 2008)

- Schwarz (2008) – *want*-type Intentional Transitive Verbs (ITVs) always take a propositional complement
- E.g. (15), ambiguous between (15a) and (15b)

(15) John wanted a cookie after dinner.
a. There was a time after dinner at which John wanted a cookie
b. John's desire is to have a cookie after dinner

[1]Indefinites 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).

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

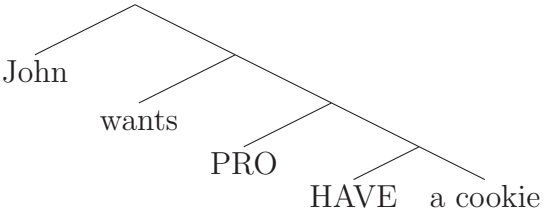
- Other verbs, even *look-for*-type ITVs have only a single reading.

  (16) John ate a cookie after dinner.
  a. only: There was a time after dinner at which John ate a cookie

  (17) John looked for a cookie after dinner.
  a. only: There was a time after dinner at which John looked for a cookie

- The explanation Schwarz offers is that *want*-type ITVs can take a covert small-*HAVE*-clause argument.

  (18) John wants a cookie.



- Adverbials can attach high or low with ITVs, as demonstrated by the ambiguity in (15).

  (15a) John [wanted [PRO HAVE a cookie] after dinner] (high attachment)

  (15b) John wanted [[PRO HAVE a cookie] after dinner] (low attachment)

4.2 Extension to evaluatives

- *Like* is likewise ambiguous (19), while *eat* is not (16).

  (19) 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)

- *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 *want*-type ITVs).

- All attachment readings given below:

(20) John liked a cookie after dinner.
  a. There was a time(s) after dinner at which John liked to have a cookie.[2] (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.*

- **The Point:**
  - *Like* can take a *HAVE*-clause argument
  - *HAVE*-clause is present in felicitous/non-'fickle' readings of *John likes a cookie after dinner*

4.2.1 *HAVE* v. R

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

(21) a. I need a shower. (≠ have a shower) (Schwarz, 2008, p. 271-2)
  b. John needs a marathon. (??have a marathon)

(22) a. I need [PRO R a shower].
  b. John needs [PRO R a marathon].

- For simplicity, we will abstract over these two options, calling them simply *HAVE*-clauses

4.2.2 *HAVE* and non-specific readings

- So far, the constructions in (3) have two distinguishing characteristics
  1. They allow a non-specific reading of the singular indefinite object
  2. They allow a *HAVE*-clause reading, cf. (19) – to be shown more thoroughly in the next section

- (Note that both are likewise true to *want*-type ITVs, cf. (15))

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

- Why is (1b) not allowed a non-specific/*HAVE*-clause interpretation?

(1) a. John likes cookies. (kind reading)
b. #John likes a cookie. (specific reading/#kind reading)

- First, why is (23) allowed a non-specific reading?

(23) 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?
- The evocativeness of *challenge* easily lends itself to a *HAVE*-clause reading, one where the agent is the consumer of a challenge (note ambiguity with adverbial attachment – (24)).[3]

(24) I like a challenge in the afternoon.
a. There are times in the afternoon when I like a challenge
b. What I like is to 'have' a challenge in the afternoon

- → **Non-specific reading and *HAVE*-clause-reading seem to be tied together**. But why?
- Next section – answer this question by looking at each example, seeing how modifier → *HAVE*-clause & non-specific reading

5 Solutions

- Modification accomplishes two things:

I. induces *HAVE*-clause reading
II. allows non-specific reading of the singular indefinite

(3a) John likes a cookie after dinner.

I. Modification induces *HAVE*-clause reading:

- Modification of *HAVE*-clause (26) is the preferred reading of (3a)
- Readings without *HAVE*-clause (or with high attachment of adverbial) are 'fickle', (25)

[3]The same holds for nouns like *puzzle*, *mystery*, etc.

(25) a. John [likes [a cookie] after dinner] ('fickle')
b. John [likes [PRO HAVE a cookie] after dinner] (high attachment, 'fickle')

(26) John likes [[PRO HAVE a cookie] after dinner] (low attachment)

II. Modification allows non-specific reading:

- Apply Rimell's analysis of habituals directly:
  - The modifier supplies a restrictor,
  - The restrictor licenses a covert adverbial quantifier over situations (GEN_s).
- GEN_s scoping above the indefinite gives a non-specific reading

(27) GEN_s [J in s and s after dinner] $\exists x$[cookie(x) and J likes have(x, J) in s]

(3b) ?John likes to have a cookie.

I. Modification induces *HAVE*-clause reading:

- Overt *HAVE*-clause

II. Modification allows non-specific reading:

- Overt verb provides salient target of modification → modification licenses non-specific reading ⇒ overt verb leads speaker to anticipate/create (hence ?-rating) restrictor and quantification, which give non-specific reading

(28) GEN_s [J in s and ??? in s] $\exists x$[cookie(x) and J likes have(x, J) in s]

- It seems to be easier to infer a contextual restrictor with an overt *have* clause than with simplex *like* ('fickle')
- Still, the difficulty of supplying a covert restrictor and a covert quantifier is reflected in the marginality of the example[4]

[4]There seems to be another available reading of (3b), which correspond to the for in (33) and is similar to the analyses provided here for (3c) and (3d).

(i) GEN_s [J in s and s is a cookie-*HAVING* situation] [J likes s]

(3c) John likes a good cookie.

I. Modification induces *HAVE*-clause reading:

- Special adjective, *good** restricts us situations that meet some standard
- This seems to be related to examples where *good* modifies quantities

(29) John read a good ten books.

(30) John saw a good number of geese.

- Note that other adjectives like *white* can appear in these constructions, but they are only felicitous under a intersective reading with contrastive stress, (31)

(31) a. I like white shirts.
b. # I like a white SHIRT. (*white**)
c. I like a WHITE shirt. (intersective *white*)

- *Good** patterns differently than these in terms of stress, needing to be less prominent than the noun.
- Non-prominence for a contrastive intersective adjective results in infelicity (31b)
- ***Good** modifies the *HAVING*-situation**

(3c) I like a cookie-*HAVING* situation that is good. (*good**, non-specific)

(3c) I like a good-cookie (intersective, specific)

- Contrastive intersective adjectives do not modify situations (situations cannot be white)

(31b) #I like a shirt-*HAVING* situation that is white. (*white**, non-specific)

(31c) I like a white-shirt. (intersective, specific)

II. Modification allows non-specific reading:

- Ferreira (2005) proposes that the habitual operator is a covert definite determiner over pluralities of events
- On this view *good** can be understood as a modifier of pluralities of events, while the *good* of quantity in (29) and (30) modifies pluralities of objects
- In a system like Ferreira's, the adjective *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**** **as situation restrictor → tripartite structure → non-specific reading**

(32) GEN_s [J in s and s is a cookie-*HAVING* situation and s exceeds a threshold for goodness] [J likes s]

- This somewhat parallels (23), *I like a challenge*

(33) GEN_s [J in s and s is a challenge-*HAVING* situation] [J likes s]

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

I. Modification induces *HAVE*-clause reading:

- Similar to (3c) – restrict to cookie-*HAVING* situations that meet some standard (here, average)
- Though here it's more ambiguous, situation reading brought out by infelicity of specific (See (37) below)

II. Modification allows non-specific reading:

(34) GEN_s [J in s and s is a cookie-*HAVING* situation and s meets a standard of acceptability] [J likes s]

- But how do you arrive at this compositionally?
- (3d) is likely idiomatic, as suggested by the infelicity of paraphrases and similar expressions in (35).

(35) a. # John likes a cookie the same amount as the next person.
b. # John likes a cookie more than the next person.

- Note: (3d) quantifies over multiple people (cf. (36), (37a) with specific reading only), and it is unlikely that a large number of people would have feelings about the same cookie (cf. (37b) with reference to a widely-known figure, which many people are likely to have feelings about)

(36) John like a cookie as much as {the next person/anyone}

(37) a. #I like a cookie as much as John.
b. I like the president as much as {the next person/John}.

6 Conclusion

- The availability of a non-specific reading is tied to the availability of a *HAVE*-clause reading.
- Quantifier/restrictor allows for non-specific reading by preventing wide scope of indefinite (Rimell, 2004)
- We propose
  - Evaluative *like* licenses tripartite structures like habituals
  - Evaluative *like* allows a null *HAVE*-clause, similar to 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)? Under this analysis, it is more or less coincidental that the modifiers lead to both.
  - 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. *good*) in the restrictor meaningful?

    [J in s and s is a cookie-*HAVING* situation and s exceeds a threshold for goodness] v. [J in s and s after dinner]

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8 Appendix

Here we provide more detailed tripartite structures, in line with Rimell (2004):

(3a) John likes a cookie after dinner

(38) $GEN_s[\exists x^s.R(x^s, m)$ in $s \wedge x^s$ after dinner in $s]$
$[\exists a^o.cookie(a^o) \wedge \exists y^s.R(y^s, m)$ in $s \wedge \exists b^s[R(b^s, a^o) \wedge \exists z.R(z^s, m)$ in $s[like(y^s, have(z^s, b^s)$in $s)$ in $s]]]$
'Generally, any situation s that contains a Mary-stage which is after dinner in s, there is a cookie, and s contains a Mary-stage which likes a Mary-stage in s to have a stage of that cookie in s.'

(3b) John likes to have a cookie.

(39) $GEN_s[\exists x^s.R(x^s, J)$ in $s \wedge x^s$??? in $s]$
$[\exists a^o.cookie(a^o) \wedge \exists y^s.R(y^s, J)$ in $s \wedge \exists b^s[R(b^s, a^o) \wedge \exists z.R(z^s, J)$ in $s[like(y^s, have(z^s, b^s)$in $s)$ in $s]]]$

(3c) John likes a good cookie.

(40) $GEN_s[\exists a : cookie(a)$ in $s \wedge (Q)\lambda x.good^*(have(x, a))$ in s]
$[\exists b^s.R(b^s, a) \wedge \exists y^s, z^s.R(y^s, j) \wedge R(z^s, j)$ in $s \wedge like(y^s, have(z^s, b^s)$ in $s)$ in $s]$

(3d) John likes a cookie as much as the next person

(41) $GEN_s[\exists a : cookie(a)$ in $s \wedge (Q)\lambda x.average^*(have(x, a))$ in s]
$[\exists b^s.R(b^s, a) \wedge \exists y^s, z^s.R(y^s, j) \wedge R(z^s, j)$ in $s \wedge like(y^s, have(z^s, b^s)$ in $s)$ in $s]$

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