manner implicature needs better representation

UCLA SEMANTICS TEA

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1   introduction

- what most people know[1] about conversational implicature

    - it's completely different from conventional implicature (Potts, 2005)
    - the terms 'conversational implicature' and 'scalar implicature' are effectively interchangable
    - they were first characterized by Grice as a pragmatic phenomenon (Grice, 1975)...
    - ...but there's lots of good reason to encode them syntactically (Chierchia et al., 2009)

- my hobby horse: manner implicature and non-scalar quantity implicatures (Rett, 2015)

    - manner implicature needs to fire its agent!
    - you wouldn't know it from the literature, but it offers just as useful of a perspective on implicature as scalar implicatures do
    - in particular:
        * it can help us determine the necessary properties of conversational implicature
        * it suggests that there's a continuum between conversational and conventional implicature (à la Levinson, 2000)
        * it underscores the need for a treatment of embedded implicature that isn't tied to an optionally null operator

2   what Grice said

- conversational implicatures arise as the result of the **flouting** (not the violation) of one of four maxims:

    1. **Quantity**: Make your contribution as informative as required, but not more;
    2. **Quality**: Do not say false things or things for which you dont have adequate evidence;
    3. **Relation**: Be relevant;
    4. **Manner**: Avoid obscurity; avoid ambiguity; be brief; be orderly

- according to Grice, conversational implicature is:

    - calculable
        * importantly (cf. Lepore and Stone, 2013), it arises as the result of **linguistic reasoning**: the hearer thinks about what the speaker said in relation to what she could have said instead
        * this means that conversational implicatures are by their nature calculable: you can reason from the context to the particular content of the implicature

        (1)   A: What did you think of the presentation?
               B: The handout was well-formatted.

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[1]non-factive use

* B's implicature: 'B did not like the presentation'
* A's linguistic reasoning:
  1. I assume B is following the conversational maxims (and that she is assuming I'm assuming she's following them).
  2. B is flouting the Maxim of Relation: her answer isn't particularly relevant to my question, because one's enjoyment of a presentation typically depends on significantly more than handout formatting
  3. Because this irrelevant comment is the most relevant B could find, she must not like the presentation (but can't say so for reasons of e.g. politeness)
* (might need to add maxims of politeness: Lakoff 1973; Brown and Levinson 1978)

– detachable (a.k.a. non-conventional)

* conversational implicatures are not lexicalized; they vary with the context of utterance, not with the word or phrase uttered (compare to the conventional implicature encoded in *but*)
* a detachability test is one that demonstrates a phrase or sentence can but need not have a particular implicature, depending on the context of utterance

  (2)   A: What did you think of the handout?
          B: The handout was well-formatted.

  · does not implicate 'B didn't like the presentation' (of course)

– cancellable

* the implicature is calculated (or perhaps just calculable) in the context of utterance...
* ... but the speaker makes it clear she hadn't intended to communicate the implicature

  (3)   Ann ate some of the pizza... in fact, she ate all of it.

• even Grice recognized that detachability and cancellability do not hold of every conversational implicature (i.e. they're sufficient but not necessary conditions for implicature):

> "[I]nsofar as the manner of expression plays no role in the calculation, it will not be possible to find another way of saying the same thing, which simply lacks the implicature in question" (Grice, 1975, 58)

• so this leaves us in a not-so-great state of affairs for those of us looking to diagnose conversational implicatures in the wild (see also Hirschberg, 1991)

• the big question: if these are the known diagnostics for scalar implicature, but we know two (detachability and cancellability) don't extend to Manner implicatures prima facie, what are the diagnostics for conversational implicature generally?

• the answer (for a while): ¯_(ツ)_/¯

3   some possible additional diagnostics

• to differentiate implicatures from entailed content (especially presuppositions), two similar tests:

– Redundancy of Conjunction (Horn, 1972): If p presupposes q, 'p & q' sounds weird. But not if p **implicates** q.

  (4)   a. #John is a bachelor and/but he is a man.
          b.   Some people left early ?and/but not everyone did.

– Reinforceability (Sadock, 1978): conversational implicatures are freely reinforceable, e.g. *some but not all*, *A or B or both*

- variation with discourse status

  - At-issue content addresses the Question Under Discussion (QUD, Roberts, 1990), and doesn't project (Simons et al., 2011);
  - Not-at-issue content does not address the QUD, and does project.
  - If an implicature (even a scalar one) is at-issue, it isn't cancellable (van Kuppevelt, 1995).

    (5)   A: Who passed some exams?
          B: John. In fact, he passed all of them.

    (6)   A: How many exams did John pass?
          B: Some. #In fact, he passed all of them.

  - If an implicature has an 'anaphoric link', it is (van der Sandt, 1992).

    (7)   A: Did John meet a woman at the bar last night?
          B: Yes (he met a woman), in fact he met his wife.

- embeddability

  - scalar implicatures are interpreted locally (Chierchia, 2004)

    (8)   John believes [$_{CP}$ that some students are waiting for him.]
          a.   John believes that not every student is waiting for him.   *local*
          b. #It is not the case that John believes that every student is waiting for him.   *global*

- so which of these, if any, can also diagnose Manner implicatures?

- sidebar: in Rett (2015) I also look at what I call 'uninformativity-based Quantity implicatures': implicatures arising from tautologies (see also Geurts, 2011).

  > Extreme examples of a flouting of the first maxim of Quantity are provided by utterances of patent tautologies like *Women are women* and *War is war*. I would wish to maintain that at the level of what is said, in my favored sense, such remarks are totally noninformative and so, at that level, cannot but infringe the first maxim of Quantity in any conversational context. They are, of course, informative at the level of what is implicated, and the hearer's identification of their informative content at this level is dependent on his ability to explain the speaker's selection of this *particular* patent tautology (Grice, 1975, 52). [original emphasis]

  - Grice specifies, then, that these, too, are intrinsically not detachable or cancellable – meaning that these tests aren't even universal tests for Quantity implicatures.

4   first pass: bad exemplars

- Grice's examples of Manner implicature are few, and dubious

  - example of 'Avoid ambiguity': the British General's message *I have Sind*
  - example of 'Avoid obscurity': spelling or using big words in front of a child
  - example of 'Be brief or succinct':

    (9)   a.   Miss X sang "Home Sweet Home".
          b.   Miss X produced a series of sounds that correspond closely with the score of "Home Sweet Home".

- McCawley (1978) brought markedness into the discussion, honing the data to include lexical blocking and periphrasis

  (10)   a.   pale green   *lexical blocking*
          b.   ?pale red (cf. *pink*)
          c.   ?pale black (cf. *grey*)

  (11)   a.   He caused the sheriff to die.   *periphrasis* (Katz, 1972)
          b.   He killed the sheriff.

- in a similar vein, Horn (1991) introduced litotes into the mix

  "[T]wo negatives, however, do not exactly cancel one another out so that the result is identical to the simple... the longer expression is always weaker: "this is not unknown to me" or "I am not ignorant of this" means "I am to some extent aware of it," etc. The psychological reason for this is that the *détour* through the two mutually destructive negatives weakens the mental energy of the listener and implies... a hesitation which is absent from the blunt, outspoken *common* or *known*."   (Jespersen, 1965, 332)

  (12)   I was not unaware of the problem.   (Horn, 1991, 90)
          a.   I was damn well aware of it.
          b.   I had a very slight awareness of the problem.

5   evaluativity as a Manner implicature

- my examples involve antonymic markedness in adjectives, and the added meaning that occurs a) only negative antonyms in b) only some constructions.

  (13)   A sentence is **evaluative** with respect to a gradable adjective $\mathcal{G}$ iff it entails that some individual instantiate $\mathcal{G}$ to a significant degree.

  (14)   a.   Adam is tall. $\rightarrow$ Adam is not short.
          b.   Adam is 5ft tall. $\nrightarrow$ Adam is not short.

- The response (beginning with Bartsch and Vennemann, 1972; Cresswell, 1976): a null operator that simultaneously 1) contributes evaluativity; and 2) binds (or values) the degree argument.

  (15)   POS $\rightarrow \lambda\mathcal{G}_{\langle d,\langle e,t\rangle\rangle}\lambda x\exists d[\mathcal{G}(x,d) \wedge d > s]$, for some contextually valued standard s

- Which, in turn, presents a compositionality problem.

  "As far as I can tell, there is no independent justification for introducing POS; it is merely a device for fixing up the semantics." (Klein, 1980, 3)

  "The operator "positively," call it POS, is invisible, which made E. Klein think that it doesn't exist." (von Stechow, 1984, 59)

- However, unlike other null operators (e.g. *pro*), no language has an overt counterpart of POS

  "The failure of the putative operator POS to correspond to overt material in language after language – in stark contrast to [comparative markers] – could be taken as evidence that POS does not actually exist and hence that any approach in which [evaluativity] requires a special operator is misguided." (Grano, 2012, 515)

- Worse, the POS account is wrong (Bierwisch, 1989; Rett, 2007, 2008): it incorrectly predicts evaluativity and overt degree-argument manipulation (valuation, binding) are in complementary distribution.

  – Three types of degree constructions with respect to evaluativity:

  (16) **antonym-sensitive evaluativity**

      a.   How short is Adam?   *degree question*

      b.   Adam is as short as Doug.   *equative*

      c.   Adam is that short too.   *degree demonstrative*

  (17) **antonym-insensitive evaluativity**

      a.   Adam is tall/short.   *positive construction*

      b.   Is Adam tall/short?   *polar degree questions*

  (18) **non-evaluative**

      a.   Adam is 5ft tall.   *MP construction*

      b.   Adam is taller/shorter than Doug.   *comparative*

- in particular, I analyze antonym-sensitive evaluativity as a Manner implicature, and antonym-insensitive evaluativity as an uninformativity-based Quantity implicature. (The non-evaluative cases are those in which the evaluativity implicature is blocked.)

6   diagnostics for (Manner) implicatures

IMPLICATURE TYPE	cancellable?	detachable?	reinforceable?	QUD-sensitive?	embeddable?
scalar	✓	✓	✓	✓	✓
uninform. Quantity	x	x	✓	✓	✓
Manner	x	x	✓	✓	(✓)

Table 1: Properties of implicature

- Manner implicatures are calculable (see the Jesperson quote above).

- as predicted by Grice, Manner implicatures are not cancellable (or detachable).

  (19)   a. I am not ignorant of this... #in fact, I am unaware of it.
          b. Adam caused the sheriff to die... #in fact, he killed him outright.

  (20)   a. Adam is as short as Doug... #in fact, they're both tall.
          b. Adam knows how short Doug is... #in fact, he knows Doug is tall.

- they are, however, reinforceable

  (21)   a. I am not ignorant of this... which is to say, I know a little bit about it.
          b. Adam caused the sheriff to die... which is to say, he killed him indirectly.

  (22)   a. Adam is as short as Doug, which is to say they're both short.
          b. Adam knows how short Doug is, which is to say he knows he's short.

- and they do vary with the QUD

  (23)   A: Adam looks quite shaken. Did he somehow cause the sheriff to die?
          B: Yes (Adam caused the sheriff to die), in fact he murdered him.

(24)   A: I'm a little worried about the actress playing me in the movie. Is she tall or short?
      B: *(to the casting agent)* How short is Susan again?
      A: That's fine, as long as she's short/#tall.

(25)   A: I'm a little worried about the actress playing me in the movie. Is she tall or short?
      B: *(to the casting agent)* How tall is Susan again?
      A: #That's fine, as long as she's short/tall.

- they're also embeddable, although optionally so.

(26)   The judge believes that Adam caused the sheriff to die.
      a.   Judge believes Adam was indirectly responsible for the sheriff's death   *local*
      b.   The speaker is being indirect for reasons of politeness or delicacy   *global*

(27)   a.   (Robin's really confused about everyone's heights.) Robin thinks Doug is short, and she believes Adam is as short as Doug.   *local*
      b.   (Robin thinks Adam and Doug are 5′0″, but she doesn't know that counts as short in this context.) Robin believes Adam is as short as Doug.   *global*

7   open issues

- evaluativity even seems bindable by universal quantifiers, possibly in contrast to presuppositions?[2]

(28)   *context: Everyone in my family is 5 feet tall. Since we're all different ages, this means that some of us are short for our age, and some of us are tall for our age, etc.*
      # John is as short as everyone in my family.

(29)   ??John is as short as no one else.

- if Manner (and uninformativity-based Quantity) implicatures are embeddable, too, it makes significantly less sense to model local conversational implicature using a null syntactic operator

  - i.e. there's no overt counterpart to a null MANNER operator
  - and it seems ideal to model local implicature uniformly

- that said, Manner implicature is only optionally embeddable... what's the source of the distinction?

- extensions (in Rett, 2015) to other adjectival Manner implicatures:

(30)   a.   Adam is more tall than Doug.   *analytic comparative*; Matushansky (2001)
      b.   Tennis balls are as heavy as 60g.   *MP equative*; Rett (2014)
      c.   The soup cooled for/in an hour.   *degree achievement*; Hay et al. (1999)
      d.   He has considerable money.   *evaluative DP*; Bolinger (1972); Morzycki (2009)
      e.   He [cooks]$_F$, believe you me!   *evaluative VP*; ibid.

- considerations about the continuum between Generalized and Particularized conversational implicature, and perhaps between conventional and conversational implicature

- new things to learn about Game-Theoretic Pragmatics (or at least the Lexical Uncertainty model of Manner implicatures within RSA, Bergen et al. 2016)

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[2]Philippe Schlenker, p.c. "I'll be curious what you find with the general projection behavior of evaluativity, especially in terms of the implicature vs. presupposition comparison. Embedding under 'no' is the most informative, in my view. 'If' and 'may' can help too, and they have different monotonicity properties, which can be useful if one seeks to distinguish an implicature-based analysis from a presupposition-based analysis."

References

Bartsch, R. and Vennemann, T. (1972). The grammar of relative adjectives and comparison. *Linguistische Berichte*, 20:19–32.

Bergen, L., Levy, R., and Goodman, N. (2016). Pragmatic reasoning through semantic inference. *Semantics and Pragmatics*, 9.

Bierwisch, M. (1989). The semantics of gradation. In Bierwisch, M. and Lang, E., editors, *Dimensional Adjectives: Grammatical Structure and Conceptual Interpretation*, pages 71–237. Springer-Verlag.

Bolinger, D. (1972). *Degree words*. Mouton, Paris.

Brown, P. and Levinson, S. (1978). Universals in language usage: politeness phenomena. In Goody, E., editor, *Questions and politeness: strategies in social interaction*, pages 56–310. Cambridge University Press.

Chierchia, G. (2004). Scalar implicatures, polarity phenomena and the syntax/pragmatic interface. In Beletti, A., editor, *Structures and Beyond*, pages 39–103. Oxford University Press.

Chierchia, G., Fox, D., and Spector, B. (2009). The grammatical voice of scalar implicatures and the relationship between semantics and pragmatics. In Portner, P. and al., e., editors, *Handbook of semantics*. Mouton de Gruyter.

Cresswell, M. (1976). The semantics of degree. In Partee, B., editor, *Montague Grammar*, pages 261–292. Academic Press.

Geurts, B. (2011). *Quantity implicatures*. Cambridge University Press.

Grano, T. (2012). Mandarin *hen* and universal markedness in gradable adjectives. *Natural Language and Linguistic Theory*, 30:513–565.

Grice, P. (1975). Logic and conversation. In Cole, P. and Morgan, J., editors, *Syntax and Semantics*, volume 3. Academic Press.

Hay, J., Kennedy, C., and Levin, B. (1999). Scalar structure underlies telicity in "degree achievements". In Matthews, T. and Strolovitch, D., editors, *Proceedings of SALT IX*, pages 127–144. CLC Publications.

Hirschberg, J. (1991). *A theory of scalar implicature*. Garland.

Horn, L. (1972). *On the semantic properties of the logical operators in English*. PhD Thesis, UCLA.

Horn, L. (1991). Duplex negatio affirmat... the economy of double negation. *Chicago Linguistics Society*, 27:80–106.

Jespersen, O. (1965). *The Philosophy of Grammar*. W. W. Norton & Co. Originally published 1924, Allen & Unwin, London.

Katz, J. (1972). *Semantic Theory*. Harper & Row.

Klein, E. (1980). A semantics for positive and comparative adjectives. *Linguistics and Philosophy*, 4:1–45.

van Kuppevelt, J. (1995). Discourse structure, topicality and questioning. *Journal of Linguistics*, 31:109–147.

Lakoff, R. (1973). The logic of politeness; or, minding your P's and Q's. In Corum, C., Smith-Stark, T. C., and Weiser, A., editors, *Papers from the Ninth Regional Meeting of the Chicago Linguistics Society*.

Lepore, E. and Stone, M. (2013). *Imagination and convention: distinguishing grammar and inference in language*. Oxford University Press.

Levinson, S. (2000). *Presumptive meanings: the theory of generalized conversational implicature*. MIT Press.

Matushansky, O. (2001). More of a good thing: Russian synthetic and analytic comparatives. In *Proceedings of FASL 10*. University of Michigan Press.

McCawley, J. (1978). Conversational implicature and the lexicon. In Cole, P., editor, *Syntax and Semantics 9: Pragmatics*, pages 245–259. Academic Press.

Morzycki, M. (2009). Degree modification of gradable nouns: size adjectives and adnominal degree morphemes. *Natural Language Semantics*, 17:175–203.

Potts, C. (2005). *The logic of conventional implicatures*. Oxford University Press.

Rett, J. (2007). Antonymy and evaluativity. In Gibson, M. and Friedman, T., editors, *Proceedings of SALT XVII*, pages 210–227. CLC Publications.

Rett, J. (2008). *Degree Modification in Natural Language*. PhD thesis, Rutgers University.

Rett, J. (2014). Modified numerals and measure phrase equatives. *Journal of Semantics*, 32:425–475.

Rett, J. (2015). *The semantics of evaluativity*. Oxford University Press.

Roberts, C. (1990). *Modal subordination, anaphora, and distributivity*. Garland Press.

Sadock, J. M. (1978). On testing for conversational implicature. In Cole, P., editor, *Pragmatics*, volume 9 of *Syntax and Semantics*, pages 281–298. Academic Press.

van der Sandt, R. (1992). Presupposition projection as anaphora resolution. *Journal of Semantics*, 9:333–377.

Simons, M., Tonhauser, J., Beaver, D., and Roberts, C. (2011). What projects and why. In Li, N. and Lutz, D., editors, *Proceedings of SALT XX*, pages 309–327. CLC Publications.

von Stechow, A. (1984). Comparing semantic theories of comparison. *Journal of Semantics*, 3:1–77.