Background

We investigate context dependence in two subclasses of gradable adjectives (GAs): relative GAs as in (1), and absolute GAs as in (2):

(1) Alex is tall.
(2) My glass is empty.

Context dependence: In both cases, the interpretation of the adjective is partially determined by the contexts in which they are used:

(3) Alex is tall. [Alex is a 6 yr old girl]
(4) The Sears Tower is tall. [on a road trip]

(5) My glass is empty.
(6) The tank is empty.

Different basic meanings? However, the two classes differ in important ways related to the (un)availability of precise interpretations.

Relative GAs behave like vague predicates: 

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Precise</th>
<th>Vague</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorensen paradox</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>Borderline cases</td>
<td>✓</td>
<td>X</td>
</tr>
</tbody>
</table>

Puzzle: How do we reconcile the apparent similarity in context dependence, and the differences in the (un)availability of precise meanings [1-2]?

Hypothesis 1: For both classes, meaning variability reflects semantic indeterminacy — part of the basic meanings of tall and empty must be supplied by the context of utterance.

Hypothesis 2: Relative GAs have semantically indeterminate meanings; Absolute GAs have precise meanings, explaining why precise interpretations are available.

Part to be explained: source of meaning variability in absolute GAs.

We present four Mechanical Turk experiments that provide support for Hypothesis 2.

Exp 1-2: Relative GAs sensitive to salience in the local context in a way that AGAs are not.

Exp 3-4: Relative GAs and AGAs have different dynamic patterns. AGAs, consistent with [4], show an asymmetry in the direction of shiftability, while RGAs do not.

Exp 3-4: Ordering effects

Questions:

-Do RGAs and AGAs differ in terms of the shiftability of their standards?
-Does setting a maximally precise standard of precision for an AGA decrease the likelihood of accepting the same adjective (i.e. relaxing the previously set standard) on a subsequent trial? (Exp 4, n=36)
-Does a prior high standard trial for a RGA have a similar effect on subsequent interpretation of the same adjective? (Exp 3, n=36)

Relative Absolute

Participants judged images as in Exp 1 (isolated). Responses fit to mixed-effects regression models with the following fixed effects:

- Scale position
- Number prior instances of the same adjective
- Prior precise extreme exemplar

Results—Relative GAs:

- Prior exposure to extreme exemplar increased likelihood of accepting a subsequent use of the same adjective
- No interaction with current item’s scale position
- Effect of prior extreme exemplar decreased as number of intervening uses of the same adjective increased

Results—Absolute GAs:

- Prior exposure to a max precision exemplar decreased likelihood of accepting a subsequent use of the same adjective
- Interaction with current item’s scale position: objects distant from maximally precise were more strongly affected by a prior maximally precise exemplar
- Effect of prior max precision exemplar did not interact with number of intervening uses of the same adjective

Exp 3-4 show that RGAs and AGAs differ in terms of how their standards can be shifted across multiple uses:

-RGAs: Prior extreme exemplars have a facilitative effect on subsequent acceptance of the same adjective
-AGAs: Prior maximally precise exemplars make comprehenders more resistant to accept subsequent uses of the same adjective — compatible with standards of precision being harder to lower/loosen than raise/make more precise

Conclusions

These results provide additional evidence for a distinction between Relative and Absolute GAs. We show that these classes of expressions can be differentiated with respect to:

(i) Sensitivity to different aspects of the context
- Standards of comparison for RGAs are closely tied to the local discourse representation
- Standards of precision for AGAs are linked to broader features of the context at large

(ii) Dynamic profiles
- Shiftability of standards of precision for AGAs is asymmetrical: they allow shifts to higher levels of precision, and resist loosening a standard that was previously set at maximum precision
- Standards of comparison for RGAs are also shiftable, but do not show a difference in the direction of shiftability

In work currently in progress, we investigate differences in sensitivity between RGAs and AGAs to aspects of the global communicative (i.e. not necessarily linguistic) context, such as goal structure and communicative intent.

References