1 Background and requirements

Syrett et al. (2009) provide experimental evidence for the theory of gradable adjectives developed by Kennedy & McNally (2005) and Kennedy (2007). The paper reports on a number of experiments with both children and adults. The whole paper is worth reading, but we are going to focus just on experiment 1 (section 2, the only required section). This is partly because we are short on time and partly because the paper employs symbols and terminology that we haven’t seen yet. The goal of this handout is to fill in some background details and try to articulate why the researchers undertook this set of experiments.

2 Scale structure: the central hypothesis

Scale structure (Kennedy & McNally 2005)

- totally open: tall, short
- lower closed: wet, bent
- upper closed: pure, straight
- totally closed: opaque, open

Guiding idea  Adjectives associate with particular scales, which help determine their meanings. For example, tall and short associate with the scale of heights, and the open nature of this scale helps to determine what those adjectives mean.

Totally open scales and contextual standards  For adjectives with totally open scales, we need to set a contextual standard in order to figure out which things the adjective is true or false of. This is a pragmatic challenge because the standard can be set in very different places, depending on the context – someone says Kim is tall, and you need to know what the standard for tallness is to figure out what they are actually claiming about Kim.

Partially or totally closed scales and their endpoints  For partially or totally closed scales, we don’t need to set this kind of contextual standard, because we use the endpoint(s). For example, if something has some water on it (meets the minimal standard for wetness), then it’s wet.
Scale structure throughout One might be tempted to treat the closed-scale items as simple properties like *married* or *atomic*. However, even they have true scale structure: (i) they can be modified by *very*, and (ii) they can appear in comparatives (Kennedy & McNally 2005:§1; Kennedy 2007:§3.1) – phrases like *A is wetter than B* show that the properties are still gradable, because one thing can have more or less of the relevant property than another. (Here, we should get a contrast with adjectives like *atomic*, though they can be coaxed into gradability, so the issue is complex.)

3 Modification and scale structure

Adverbs for distinguishing scales (Kennedy & McNally 2005:§3; Kennedy 2007:§4.2)

- Maximality: *completely*, *fully*, *totally*, *absolutely*, *100%*, *perfectly*, …
- Proportion: *half*, *mostly*, *most of the way*, *two-thirds*, *three-sevenths*, …
- Minimality: *slightly*, *somewhat*, *partially*, …

Acquisition angle on the adverbs Syrett & Lidz (2010): 30-month-olds “appear to be aware of such distributional differences and recruit them in word learning” (p. 258).

<table>
<thead>
<tr>
<th>Adverb</th>
<th>Totally open</th>
<th>Totally closed</th>
<th>Upper closed</th>
<th>Lower closed</th>
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</thead>
<tbody>
<tr>
<td>Maximality</td>
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<td>Proportion</td>
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<td>Minimality</td>
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Table 1: Summary of adverb patterns. A * means ungrammatical or at least very unusual, and a ✓ means grammatical/normal. The * combinations are ruled out semantically. For example, proportion adverbs require upper and lower ends, so no adjective could allow them but disallow maximality or minimality adjectives. Similarly, no adjective could allow maximality and minimality adverbs without also allowing proportion adverbs.

Understanding the judgments

- Linguists usually describe their predictions like this: *completely tall* and *two-thirds tall* will just be ungrammatical – no one will use them intentionally – because the meaning of *tall* doesn’t have the right kind of scale structure.

- I prefer a different perspective: if a speaker said *completely tall* or *two-thirds tall*, they would be assuming – and be construed as assuming – that *tall* had the right kind of scale structure in the current context.

- These two views are different. The first predicts we’ll never encounter these phrases, and that we’ll call them meaningless if presented with them in the lab. The second is silent on whether they will occur, and predicts something about their interpretation.
4 Understanding the experiment

As before, I've formulated some questions aimed at helping to get you focused on what's important for our discussion. You should keep studying section 2 of Syrett et al. 2009 until you can answer all of them.

(1) Make sure that you understand the experimental design well enough to actually try out the crucial conditions on a friend.

(2) What assumptions do Syrett et al. make about the felicity conditions of the definite determiner?

(3) What role do the control examples in Table 1 play in the experiment?

(4) On the theory summarized in section 2 above, what is the expected pattern of behavior (for children and adults) for the following prompts in a situation in which there are two medium-sized, spotted cups, both with some liquid in them but neither full, where one is noticeably larger than the other?

   a. Hand me the cup.
   
   b. Hand me the tall cup.
   
   c. Hand me the full cup.
   
   d. Hand me the spotted cup.

(5) How well do the results of our in-class experiment align with those of Syrett et al. for (i) totally-open adjectives, (ii) lower-closed adjectives, and (iii) upper-closed adjectives?
References


