Meaning and context in children's understanding of gradable adjectives

(Syrett, Kennedy, and Lidz 2010, J. Semantics)

Curt Anderson (20.01.2020)

Introduction

Adults: difference between relative and absolute adjectives.

- Relative adjectives: context sensitive standards
- Absolute adjectives: context insensitive standards (due to scalar minima/maxima)

Relative adjectives can have different extensions in different contexts, due to context sensitivity in determining the standard.

Relative gradable adjectives in definite descriptions show this flexibility.

- Definite description: noun phrase with definite determiner
- Definiteness comes with an *existence presupposition* and a *uniqueness presupposition*.

In a situation where there are two blue rods of different lengths, only (4c) can be used to ask someone to hand over one of the rods. (4a) violates existence, while (4b) violates uniqueness. But, (4c) can be used even if one of the rods isn't independently judged to be long, due to the context dependence of the adjective.

(4) a. #Please give me the red rod.
b. #Please give me the blue rod.
c. Please give me the long rod.

Supposing kids can behave like adults with sentences like (4), this doesn't show they've acquired a context dependent meaning for *long*; they could be thinking it simply means *longer*. But, can control for this with absolute adjectives.

Absolute adjectives like *full* also interesting because of imprecision. Is imprecision simply context dependence, or is it something different?

Experiment 1

Do children correctly shift the standard of comparison for relative GAs to accommodate existence and uniqueness presuppositions, and avoid doing so for absolute GAs?

n = 30 (10 three year olds, 10 four year olds, 10 five year olds)

Playing a "game" with a puppet. Puppet would ask for one of two objects, and they could either give the puppet what he wanted, or tell him why they weren't able to. Target stimuli:

Adjective	Stimuli	Pragmatic status of request
Relative		
Big	Two big blocks, one bigger than the other	Felicitous
Big	Two small blocks, one bigger than the other	Felicitous
Long	Two long rods, one longer than the other	Felicitous
Long	Two short rods, one longer than the other	Felicitous
Absolute		
Spotted	Two disks, one with some spots, one with none	Felicitous
Spotted	Two disks, one with some spots, one with more	Infelicitous (uniqueness)
Full	Two jars, one full, one about 2/3 full	Felicitous
Full	Two jars, neither full, one fuller than the other	Infelicitous (existence)

Table 2 Target stimuli for Experiment 1

Predictions:

- Always be able to accommodate a standard for relative adjectives.
- For absolute adjectives, require that one of the objects meet the standard for the adjective. (Reject sentences that violate presuppositions.)

Results:[1]

- All participants gave "greater degree" member of a pair when only one object satisfied the request.
- Participants rejected the infelicitous control items and infelicitous *spotted* test items.
- Children seem able to shift standards for relative adjectives.
- But, children differ from adults in responses to *full*. Why?

			Age group							
			3 years		4 years		5 years		Adults	
			1	0/2	1	0/2	1	0/2	1	0/2
1	Control	(felicitous)	98	2	100	0	100	0	100	0
2	Control	(infelicitous)	4	90	0	98	0	100	0	100
3	*Big*	(big)	100	0	100	0	100	0	100	0
4	*Big*	(small)	90	10	90	10	100	0	96	4
5	*Long*	(long)	80	20	90	10	100	0	100	0
6	*Long*	(short)	100	0	100	0	100	0	96	4
7	*Spotted*	(felicitous)	100	0	100	0	100	0	100	0
8	*Spotted*	(infelicitous)	20	80	30	70	10	90	4	96
9	*Full*	(felicitous)	100	0	100	0	100	0	96	4
10	*Full*	(infelicitous)	60	40	70	30	70	30	12	88

Table 3 Distribution of responses in Experiment 1

Why different behavior with *full*?

[1] The 0/2 response indicates the child either giving both objects, or neither object. This response shows that children rejected the sentence as being infelicitous.

- Authors noticed that, when children accepted the infelicitous sentence, they were assigned an order in the task when the infelicitous pair of objects appeared before the felicitous pair.

Experiment 2

Designed to test source of order effect with *full* in Experiment 1. Did the prior presentation of a relative gradable adjective pair treat children to treat *full* as context dependent (rather than absolute)?

n = 17 children

Same materials from Experiment 1. In Experiment 1, infelicitous *full* pair was preceded by *long* pair. Switched this order for Experiment 2.

Results:

- Order of relative adjective and infelicitous *full* seems not to matter.
- What matters is whether they see the felicitous *full* pair first.
- E.g., have they seen maximum fullness.
- Willingness to tolerate an amount of imprecision on behalf of the puppet? Recognition that an utterance is false, but a desire to behave as if it were true.

	1	2	3
	Experiment 1: *long* < *#full* < *full*	Experiment 2: *#full* < *long* < *full*	Experiment 1: *full* < *long* < *#full*
Children	0	18	67
Adults	75	70	100

Also looked at reaction times (RTs). Infelicitous uses of *full* take longer than felicitous uses, and infelicitous uses of *full* take longer than relative adjectives such as *big* do when used to describe small things.

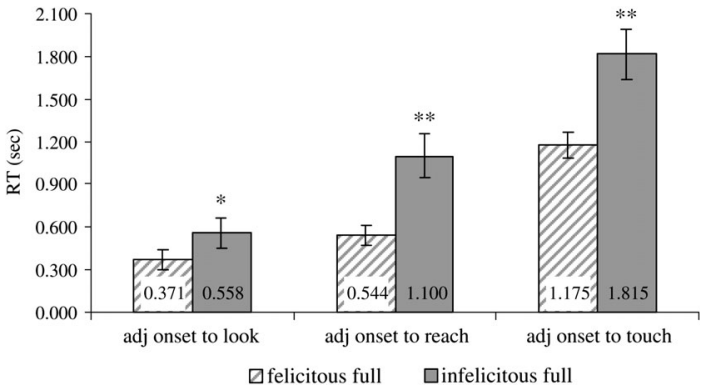

Figure 1 Children's RTs for two *full* pairs in Experiments 1 and 2.

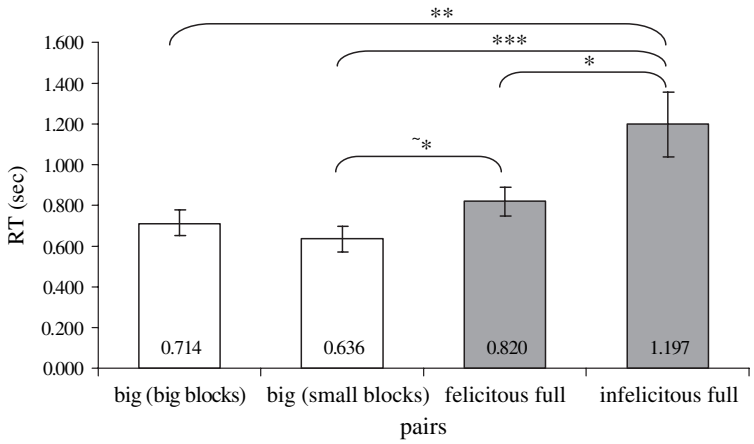

Figure 2 Children's RTs for four key pairs in Experiments 1 and 2.

RTs show that a shift in standard of comparison is automatic for relative GAs. But, need extra time for processing with absolute GAs.

These results are replicated in Experiment 3 with *straight* and *bumpy*.

Discussion

What did they find:

- Children correctly assign context sensitive denotations to *big* and *long.*
- Aware of uniqueness and existence presuppositions of definite descriptions even by 3 years old.
- Treat both relative and absolute GAs as potentially variable. For absolute GAs, this depended on order of presentation. (they add: No reason to think adults don't also do this, but the experiment wasn't sensitive enough to detect it.)

Is this the same kind of context sensitivity?

- Maybe not. Absolute GA context sensitivity possibly linked to imprecision.
- Is imprecision the same as context sensitivity? Probably not.
- RTs show that these are different. Not a uniform source for context sensitivity.
- Lasersohn (1999): think of imprecision as a halo of pragmatic differences around a linguistic expression.
- Order of presentation affects the size of the halo for children.
- RTs show semantic versus pragmatic interpretive variability.