

## REFERENTIAL OVERSPECIFICATION: COLOUR IS NOT *THAT* SPECIAL

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When referring, speakers select bits of information to include into their referring expressions. Referential overspecification occurs when unnecessary information is included, that is, when the hearer could identify the referent without at least some of the included information. For example, ‘the yellow coat’ is overspecified when only one coat is present in the context, because ‘yellow’ is not needed for identification of the coat. Experimental research has shown that, against initial theoretical expectations, referential overspecification is quite common.

Interestingly, previous research suggests that overspecification of colour is much more common than overspecification of other attributes. However, attributes that colour has been compared with are often very different from colour, for example in being less codable (in the case of spatial orientation<sup>1</sup>) or visually less prominent than colour (in the case of material), or in being relative rather than absolute<sup>2</sup> (in the case of size). Moreover, the contrasts used in these studies seem less striking than the colour contrasts. The aim of the present study was to find out how special colour really is in referential overspecification. To this end, we conducted two production experiments in which we compared colour to attributes that are more similar to colour in being codable and visually prominent. These attributes were pattern, which is absolute like colour, and size, where we used a higher contrast than in previous studies.

In Experiment 1, 20 participants had to refer to one out of six garments in each trial. Target objects differed from the other objects in the display on exactly one attribute: colour (blue versus green) in the Colour condition, pattern (striped versus spotted) in the Pattern condition, and size (large versus small) in the Size condition. Half of the trials were critical trials, in which it was never necessary to mention any of these attributes. In the other half of the trials, which were fillers, one attribute always had to be included because one of the competitors was of the same category as the target picture. Results showed that overspecification in all three conditions was above 70%. As size overspecification rates are usually much lower, we conducted a second experiment to further investigate whether this result was either due to a habituation effect, where the repeated use of adjectives in the filler trials increased the amount of overspecification in the critical trials, or to the high contrast in the Size condition. In Experiment 2, 30 participants were assigned either to the High Contrast condition (size contrast as in Experiment 1) or to the Low Contrast condition (smaller size contrast than in Experiment 1). We used the same critical trials as in Experiment 1. In order to avoid potential habituation effects, however, the fillers were different: specification was necessary in only half of them. Moreover, the objects in the filler trials did not substantially vary in colour, pattern, or size, and none of them were garments.

Results showed that overspecification rates in all conditions were lower than in Experiment 1, suggesting that the high overspecification rates in Experiment 1 were mainly due to a habituation effect. The rate of size overspecification even fell below 5%. However, participants in the High Contrast condition produced significantly more size overspecification (8%) than in the Low Contrast condition (1%), which indicates that the degree of size contrast affected overspecification as well. This is reminiscent of Van Gompel et al.’s (2014) recent

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<sup>1</sup> Presumably, expressions like ‘facing front’ and ‘oriented to the right’ are less accessible than expressions like ‘red’ and ‘green’.

<sup>2</sup> Strictly speaking, colour is not an absolute attribute because some colours are more typical for a colour concept than others, e.g., a fire engine will be judged to be redder than a brick by most people. However, in the literature on reference, colour is considered an absolute attribute, as opposed to size. In contexts where colours are fairly typical, as in most experimental settings, an object’s colour can be determined independently of the colours of the surrounding objects. By contrast, size is considered a relative attribute because ‘big’ and ‘small’ only make sense in comparison to another object.

finding that in minimally specified referring expressions, speakers do not prefer colour over size when the size contrast is high. Moreover, the rate of overspecification in the Pattern condition (39%) was now more similar to the Colour condition (50%) than to the Size condition, although the difference between the Pattern and Colour condition was still significant. Thus, both absolute attributes were often overspecified, while the relative attribute hardly ever was.

To conclude, we show that although colour overspecification is very common, colour is not that special. The rather modest difference between colour and pattern overspecification suggests that attributes which are similar to colour in being absolute, easily codable, and visually prominent, tend to be overspecified almost as frequently as colour. The low rate of size overspecification, even in a context with increased size contrasts, confirms earlier suggestions that relative attributes are unlikely to be overspecified. However, the degree of size contrast does have an effect on overspecification.

## References

Van Gompel R., A. Gatt, E. Krahmer, and K. van Deemter (2014). The effects of size contrast on overspecification. Talk, *Referential choices in language production*, April 23, Tilburg, The Netherlands.