Spatial demonstratives (e.g. this/that) are among the most frequent terms in all languages and philologically emerge as the earliest traceable words in languages [1, 2]. They also appear early in child language acquisition [3], often co-occurring with deictic pointing. Given the importance of these lexical items, it is perhaps surprising that demonstrative systems exhibit considerable cross-linguistic variation. Whilst just over 50% of the world’s languages make a binary proximal/distal contrast [4] many languages make additional distinctions, including whether or not the object referred to is owned by the speaker (Supyire) and whether or not the object is visible (Tiriyó).

Given the diversity in the world’s demonstrative systems, one can ask if there is nevertheless a set of common perceptual parameters underlying demonstrative usage in all languages. If there is, then the distinctions lexicalised in other languages, such as ownership, should affect the use of demonstratives in English, where such parameters are not lexicalised. In the two experiments we report here, we tested directly whether ownership and visibility affect demonstrative use in English.

The experiments used a memory game paradigm [see 5 for full details] designed to elicit the use of the demonstratives ‘this’ and ‘that’ without participants realising the purpose of the experiment. Participants placed objects at various distances along the midline of a table, returned to their seat and then pointed and identified the object (e.g. ‘This blue diamond.’, ‘That red square.’)

**Experiment 1: Visibility (n=17)**

In addition to placing objects, participants were required to sometimes place a metal or glass container over the object (Figure 1, Panel B). The object was therefore only visible in the glass and no-cover condition. Visibility significantly affected participants’ use of ‘this’ and ‘that’ (F(2,32)=8.24 p=.001). There was no significant difference in performance between the glass and no cover condition, and both of these conditions produced significantly more usage of ‘this’ than the non-visible, metal container condition. There was also a significant effect of distance (F(2,32)=22.24, p=<.001), with participants using ‘this’ more often for closer locations. There were no interactions.

**Experiment 2: Ownership (n=25)**

Participants were given the British £2, £1, and 50p coins in participant payment, which also served as the ‘owned’ objects to be placed (Figure 1, Panel A). The experimenter also had a coin set. Both the participant and the experimenter placed objects at varying distances using both sets of coins.
As with the previous experiment, use of demonstratives was affected by where the object was placed (F(1.45,34.5)=30.40, p<.001). Participants also used ‘this’ more often for objects they had placed (F(1,24)= 5.79, p=.024). In addition, participants used ‘this’ significantly more often when identifying their own coins (F(1,24) = 7.44 p=.012). There were no interactions.

Conclusions

These experiments demonstrate that lexicalisation is not the only predictor of use of demonstratives, and that distinctions lexicalised in some languages also influence the use of demonstratives in other languages. These results suggest that there may be a common set of parameters that underpin demonstratives across languages.

Figure 1. This figure shows two examples of the experimental arrangement.

References