Summary
Looking for and making sense of ‘special’ words
Metaphor recognition and interpretation by schoolchildren

Metaphor research with children became popular in the 1970s, with psychologists in particular exploring children's comprehension of metaphors of the form A is B as well as of some other forms, such as adjectives. The main conclusion was that the ability to understand metaphor develops later in childhood. In the following 20 years the main focus remained on the analysis of children's cognitive abilities of children, but research methodologies became more suitable for younger children and also started to include metaphors in short stories developed for the research. These new studies changed the overall perspective, indicating that young children, too, were able to understand metaphors, provided they had the necessary domain knowledge and the task did not exceed their linguistic abilities. This research confirmed that metaphor comprehension increases with age and domain knowledge, and also pointed to the positive influence of a supportive linguistic context. In recent years it seems that the interest in research of metaphor with children has fallen away, as fewer studies have been published than in earlier periods.

What can be concluded is that metaphor research with children has focused particularly on metaphor being used as a vehicle for knowledge acquisition, as a mechanism to compare things and to transfer knowledge from one conceptual domain to another. This is supported by the emphasis on metaphor interpretation, which involves analysing the types of mapping that are needed to make sense of the metaphor and exploring knowledge of conceptual domains. This earlier research has contributed to an important increase in the knowledge and theory about metaphor comprehension by children, but has not sufficiently taken into account that metaphor is a phenomenon of language. This is shown, for example, by the striking point that metaphor recognition has hardly been explored with children and that even less is known about a possible relationship between children's language development, metaphor understanding and metaphor properties. Another gap is that there are no studies that have explored metaphor recognition with native Spanish speakers and very few that have analysed metaphor interpretation in this language.
This dissertation seeks to address these gaps by exploring the recognition and interpretation of metaphor in written language by school-age children in 4th and 6th grade from Cali, Colombia. It explores the influence of the child-related factors school grade and reading comprehension. This analysis takes into account that the school period is crucial for language development and leads to important changes that allow children to better reflect upon language and to become better at understanding figurative language; but also that this progress is not uniform and important differences even exist between children of the same school grade. Following Steen’s three-dimensional model that situates metaphor in language, thought and communication, this research also looks at the effect of the linguistic dimension (nominal A is B versus verbal metaphors), the conceptual dimension (conventional versus nonconventional) and the communicative dimension by exploring the influence of two types of discourse, literature and science, and the deliberateness of metaphor.

The identification of reading comprehension levels of 469 children from two school grades confirmed that important differences exist among children within these two grades which allowed establishing four groups of participants for the research with respectively lowest and highest reading comprehension levels from each of the two school grades. A symbolic analysis of the presence of nominal (A is B) and verbal metaphors in 34 children’s literary books and science textbooks was made to identify the linguistic material for the behavioural studies. Two methods for manual metaphor identification were taken into account: metaphor identification through vehicle terms -MIV- and the metaphor identification procedure –MIP. This analysis confirmed that the density of nominal (A is B) metaphors, which are widely used in research with children, is significantly lower that the density of verbal metaphors and that the presence of both types of metaphors was higher in literature texts than in science texts.

The behavioural studies on metaphor recognition, using an underlining task, and metaphor interpretation, using a verbal explanation task, confirmed age-related progress in that in general children from 6th grade were significantly better at both than children from 4th grade. This finding shows the relevance of schooling and advanced metalinguistic abilities that support the recognition and interpretation of figurative language. However, results also show that children with higher reading comprehension levels are significantly better at both recognition and interpretation, with several good readers in 4th grade doing better than
poor readers in 6th grade. This finding is plausible, but has not been shown before. It relates to the differences that exist in language development of children of the same school grade. Findings also show that the levels of interpretation are much higher than those of recognition, which indicates that comprehension and recognition of metaphor are two different and independent processes that may or may not go together. A reader may be very able to understand a metaphor, but this does not mean that it is recognized as a metaphorical use of language.

Findings indicate that the linguistic dimension may affect metaphor recognition, as nominal \((A \text{ is } B)\) metaphors were considerably better recognized than verbal metaphors. Results also show that the opposite is the case for interpretation, with verbal metaphors being better interpreted than nominal \((A \text{ is } B)\) metaphors. Although this was only statistically significant for the specific set of metaphors that were used, it seems to suggest that interpretation of verbal metaphors may be easier than nominal \((A \text{ is } B)\) metaphors.

The effect of the conceptual dimension was ambiguous, in that there was no difference in recognition of conventional and nonconventional metaphor in literature, but the latter were better recognized in science. It cannot be ruled out that intervening factors may be at play. The conventionality ranking by adults, for example, may not fully reflect the reality for the children. Some of the conventional metaphors may in fact be novel for them and this may have positively affected metaphor recognition of some of the conventional metaphors. Another intervening variable may have been the deliberateness which may have enhanced the chance of recognition. The finding that two of the best recognized nominal \((A \text{ is } B)\) metaphors were conventional also seems to support this suggestion. The research showed that conventional metaphors were better interpreted than nonconventional metaphors, although this was only statistically significant for the specific set of metaphors I used. This result seems plausible when one takes into account that conventionality implies that the base terms of conventional metaphors are more present in the linguistic community than those of non-conventional metaphors, and may thereby be easier to explain.

The effect of communicative dimension is confirmed in that 6th graders recognized significantly more nominal \((A \text{ is } B)\) metaphors in literature than in science texts. This suggests that a difference in class of discourse may have an important influence on the perception of metaphorical use by readers. More important, however, are the results
Looking for and making sense of ‘special’ words from the analysis of some of the best and worst recognized metaphors, which suggest that deliberateness seems to play a role in metaphor recognition. All of the best recognized metaphors scored high on some of the proposed features related to deliberateness, and particularly on contrast between focus and target domain, imagery value of the focus term and in several cases on signalling. However, the relative importance of these and other features including A is B and novelty needs further analysis.

Results presented in this dissertation advance the understanding of metaphor recognition and interpretation from written texts by school-age children and show the need to take language development aspects and particularly reading comprehension into account. This issue deserves further empirical study that looks particularly at the effect of different subskills involved in reading comprehension including for example metalinguistic awareness, inferential skills, comprehension monitoring and knowledge about genre as these may be particularly important for metaphor processing. The overall score for the reading comprehension test may mask strengths and weaknesses in these skills among children.

Findings also clearly point in the direction of a promising new area of metaphor research with children in relation with what can be called a higher level of language understanding and the communicative dimension of metaphor. Much more can be learnt about the role metaphors can play in improving reading comprehension, text production, and in understanding that language is an act of communication with purposes, intentions, and types of discourse intended for a particular audience. This requires further exploration both at a theoretical and empirical level. Some of the methods used in this study already draw attention towards possibilities to help children to reflect on the structure, use and the purpose of a text, which in turn may contribute to them becoming better readers, comprehenders, and producers of language.