

## CHAPTER FIVE

### CONCLUSION

#### 5.1 Semantic range reconsidered

The three case studies presented in this dissertation have introduced the notion of semantic range and have showed that it plays an important role in antonymy. Antonyms have been shown to be words which have a great deal of semantic range in common. As with many other notions related to antonymy, such as "semantic dimensions" and "markedness", "semantic range" is somewhat vague and difficult to define explicitly; however, the three case studies have implicitly demonstrated what semantic range is and how it can be used.

I conceive of semantic range as a reflection of a word's meaning in terms of its typical range of use. In the case of adjectives, a great deal of information about typical uses can be found simply by looking at the nouns an adjective often modifies. Sometimes, however, as in the third case study, it is also necessary to look at a larger context (such as a phrase or sentence) in which the adjective is used.

The case studies have uncovered some of the different factors which have an effect on a word's semantic range. One of the most important is connotative meaning. The first case study showed, for example, that the connotations of *little* severely restrict its semantic range. Although dictionary definitions suggest that *little* should be able to be used to describe the size of almost any kind of physical object (from *roses* to *computers* to *rivers*) in actual use, *little's* connotations usually mean that it is restricted to just a few types of

nouns, in particular, nouns which name people (e.g., *girl*, *kids*), their personal possessions and pets (*dresses*, *dog*) or places where they live (*town*, *village*). As another example, it was shown in the second case study that the positive connotations of *moist* mean that it is often used to describe food while the other adjectives related to wetness are not.

Specificity of meaning also plays a role in semantic range. The second case study showed several examples of this. The specific manner information included in the meanings of *parched* and *arid* means that these adjectives are mainly restricted to describing areas of land exposed to the effects of weather. Also, since *damp* and *moist* describe specific degrees of wetness, they are not able to serve as superordinate terms covering a whole range of the *wet/dry* scale as *wet* does.

Another factor which seems to be related to a word's semantic range is its frequency. Of the adjectives in the second case study, the most frequently occurring words, *wet* and *dry*, are also the ones with the widest semantic ranges, while the least frequent words, *parched* and *dank*, have very limited semantic ranges. However, without further study, it is difficult to tell whether a word's frequency is a result of its semantic range or whether frequency is a factor which helps determine semantic range.

Finally, the third case study showed that morphology, in particular whether a word is simple or derived, has an effect on its semantic range. The semantic range of *unhappy* is closely related to the range of *happy*, the adjective it is derived from. The second case study also provided a similar example: the semantic range of *parched* is limited by the meaning of *parch*, the verb from which it is derived.

Although the focus in this dissertation has been the use of semantic range to understand antonymy in adjectives, the notion has a potential for other uses as well. First, as the case studies have shown, semantic range is also valuable for studying synonymy. The comparison of the semantic ranges of *big* and *large* uncovered some differences that were not noted in the learner's dictionaries, such as the fact that *large* is used more often than *big* to describe the size of many physical objects. Second, the notion could be extended to deal with lexical categories other than adjectives. As mentioned in section 1.1, antonymy (in the broad sense) is found among verbs, nouns, prepositions, and adverbs, in addition to adjectives. Of course, the method of investigating semantic range would be somewhat different for these other classes of words. To characterize the semantic range of a verb, for example, it would be necessary to consider such things as its typical objects, the kinds of subjects it occurs with, and any manner information that is included in the verb's meaning.

## 5.2 Semantic range and antonymy: Directions for further research

How far does semantic range take us toward answering the initial questions about antonymy laid out in section 1.1? I think the answer is that it takes us closer to answers, but not all the way. Consider the first two questions: What makes two words antonyms? and What exactly are the semantic "dimensions" which antonyms are said to share? The notion of semantic range provides a partial explanation for the first question. It seems that shared semantic range is a basic requirement for two words to be antonyms; words such as *parched* and *humid* cannot be antonyms, even though they are

associated with opposite ends of the same semantic dimension, because they share no semantic range and thus do not really contrast in meaning. But what does it mean to say that *parched* and *humid* are associated with the same semantic dimension? The notion of a semantic dimension makes intuitive sense, but it would be good to be able to provide a more explicit account than I am able to do here. Although shared semantic range can explain a lot about antonymy, it probably cannot eliminate the need for some kind of notion of semantic dimension. For one thing, just like antonyms, near-synonyms also share semantic range, sometimes having a great deal in common, as in the case of *parched* and *arid*, for example. There are also sets of words which are similar in distribution but still not antonyms, such as the color words (*blue*, *green*, *red*, etc.) and the three adjectives *political*, *social*, and *economic*. Justeson and Katz (1992) found that the words in both of these sets had high co-occurrence rates, just like antonyms, and that they appeared to be modifying the same kinds of nouns. It is likely that the adjectives in these sets are similar in terms of semantic range and so a notion of semantic dimension may be needed to explain why *red* and *blue*, for example, are not antonyms. (*Red* and *blue* do not share a single, bipolar dimension.) However, it may be possible to distinguish these instances from those which involve antonymy on the basis of larger textual patterns, which would eliminate the need to resort to semantic dimensions as an explanation. Because it is possible for something to be both red and blue at the same time (if it is striped for example), or for a problem or event to be described as both social and political at the same time (just as something can be both dry and parched at the same time), these sets of non-antonyms occur in syntactic frames that antonyms do not occur in, e.g., *a red*

*and white shirt* (but not *\*a wet and dry shirt*) and *the dry, parched desert air* (but not *\*the dry, humid air*). This is an area which definitely merits further research.

If we can set aside these difficulties and simply assume some kind of intuitive notion of semantic dimension, then shared semantic range explains quite a bit about the next two questions: Why do some words have antonyms while others have none? and Why do some words have more than one antonym, e.g., *good/bad* and *good/evil* or *happy/sad* and *happy/unhappy*? First, words that are not clearly associated with a semantic dimension, as is the case with most nouns and a subset of adjectives derived from nouns (e.g., *professional, scholarly*) do not have antonyms. Among those that are associated with a semantic dimension, as in the adjectives in these case studies, words which have a good match in terms of semantic overlap among the contrasting words are the ones which have a clear antonym. Words which do not share a great deal of semantic range with a contrasting word (e.g., *dank* or *arid*) will not have an antonym. Similarly, words which contrast over a great deal of semantic range with more than one contrasting word are also words that have more than one antonym.

How about the last set of questions, the questions about the "clang" phenomenon and the distinction between "good" antonyms and pairs which are only near-opposites? These questions were motivated by my readings of Charles and Miller (1989) and Justeson and Katz (1991), who claim that the clang phenomenon and the distinction between good pairs of antonyms and pairs of near-opposites can be explained entirely by the fact that antonyms (but not near-opposites) frequently co-occur, leading to a mental association. As was discussed in section 1.4, they claim that this association must be based on

the forms of the words, and not their meanings, because near-opposites also conceptually contrast in some way but are not felt to be antonyms.<sup>1</sup> This explanation is rather circular--words which are used together often are perceived to be antonyms, but presumably, the reason they are used together in the first place is because they are antonyms. In this dissertation, I believe I have shown a way out of this circle, a semantic explanation for co-occurrence based on semantic range. In Chapter Two, for example, it was shown that the near-opposites *little* and *large* have very little shared semantic range--in the corpus I looked at, they were simply not used to describe the same kinds of things. Because *little* and *large* are used to modify different kinds of nouns, there can be very few occasions in which it is possible to use them together, and hence, they have a low co-occurrence rate.

Although the notion of semantic range has been used in this dissertation to look at only three cases studies of antonymy, I think the notion could be usefully applied to many others as well. It certainly could be used to look at other instances involving adjectives, but it would be especially interesting to see the notion applied to cases of antonymy among nouns, verbs, and prepositions.

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<sup>1</sup>Justeson and Katz back away from this extreme view in their 1992 paper, in which they say that semantic factors are also necessary to explain antonymy.