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Figurative language and lexicography
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This chapter explores the issues in dealing with figurative language in dictionaries. It uses the understanding of 'figurative language' that is generally shared by applied and corpus linguists, as opposed to scholars of poetry and literature. In this understanding, 'figurative language' covers all uses that are understood in some way as being an extension or transference of meaning from a literal meaning; the term is not restricted to novel or creative uses. This understanding of 'figurative' therefore includes conventionalized uses of words, such as *warm* to describe friendly behavior, or *see* to describe thinking, as well as more recent but established uses such as *green* to describe environmental issues. By far the most studied kind of figurative language is metaphor, which will be the focus of most of this chapter. Metonymy is increasingly recognized as important, and will also be mentioned. As is well known, many, if not most, idioms have their origins in metaphor or metonymy (Moon, 1998), and these also present something of a challenge to lexicography. They are referred to here but are discussed in detail elsewhere in this collection.

It has been recognized for several decades that using this broad understanding, figurative language is highly frequent in language, both when measured as types and as tokens. Developments in two related disciplines, cognitive linguistics and corpus lexicography, contributed to this recognition. Cognitive linguistics saw the publication of Lakoff and Johnson's 'Metaphors We Live By', which set out Conceptual Metaphor Theory, in 1980. In this work, Lakoff and Johnson stated in unequivocal terms (1) that metaphors pervade language, (2) that this is the result of our conceptual system being structured on metaphorical mappings between domains of experience, and (3) that metaphor is, therefore, of central importance to thought and language rather than solely the stylistic and elegant choice of the poet. Several other scholars had already started to think along these lines; for instance, in papers published in 1970 and 1978, Lehrer had explored the semantic extension of lexis across domains, examining the use of temperature words to describe emotion, and words from the domains of dimension and weight to describe wine. Using these and other examples, she demonstrated the potential systematicity of such meaning transfers, anticipating some of Lakoff and Johnson's arguments, though not explicitly advancing a theory of metaphor as conceptual. Reddy's 1979 discussion of the metaphors used to talk about communication argued that metaphors are highly frequent and that they present a particular, non-neutral view of their topic. Lakoff and Johnson's 1980 work extended such explorations of specific semantic topics, to present an ambitious model of thought and language, which still frames most current metaphor scholarship. A number of current scholars now reject some or all of the tenets of Conceptual Metaphor Theory, but as a landmark work, it requires to be addressed. Whatever the reality of conceptual mappings, or their relevance for applied linguists and lexicographers, the field of metaphor studies has been given prominence and intellectual impetus by Lakoff and Johnson's work.

Within corpus lexicography, at around the same time, corpora were beginning to be

used systematically for the exploration of word meaning and use. The COBUILD project in lexicography was central; various aspects are discussed in the collection edited by Sinclair (1987), and implications from corpora for a view of lexis in language are described in his 1991 book. As is well documented, the concordance became the standard tool of the lexicographer. By examining a concordance, the relative frequency of different meanings of a word form was relatively easy to determine, and it was quickly noted that apparently metaphorical uses often outnumber their literal counterparts. For instance, Moon (1987) notes that '*Blend* as a verb is used slightly more often to refer to the mixing of sounds, sights, emotions etc. than it is of substances' (p. 89). Deignan (1999) gives several examples of the frequency of metaphorical citations in concordances, including *shred(s)*, which are more frequently of *patience* than of *cloth* in the Bank of English (as searched in 1998), and *shoulder*, which has a number of figurative meanings. Some of these meanings can be seen as instantiations of a conceptual metaphor that maps physically heavy objects onto psychologically challenging situations. The heavy objects are metaphorically referred to as *burdens*, which are then *shouldered*. In others, *shoulder* is used to refer metonymically to actions involving literal shoulders, such as *rub shoulders*, *look over one's shoulder*, and *cry on someone's shoulder*. Corpus research in recent years has shown how frequent this kind of metonymy is; this has happened alongside developments in the cognitive metaphor literature, which from the 1990s, has increasingly discussed the centrality of metonymy, for example in collections edited by Barcelona (2000) and Dirven and Porings (2001).

Corpus observations about the frequency of metaphorical meanings in concordance data were perhaps initially surprising to analysts, given the traditional view of metaphor as peripheral to language and decorative in nature. However, like other previously unnoticed facts about language brought to light through corpus analysis, this quickly began to seem self-evident. Louw and others have noted this kind of hindsight (e.g., Louw, 2010: 756). Metaphor and, to a lesser extent, metonymy are now well established as important issues in applied linguistics and related disciplines. The frequency and apparent conceptual importance of figurative language of several types poses challenges for lexicography, among them:

How can figurative language be identified?
Which non-literal meanings should a dictionary cover, and not cover?
How should literal and figurative meanings be ordered and treated?

This chapter discusses these challenges and ways of tackling them, and then considers how dictionaries are used in metaphor scholarship.

How can figurative language be identified?

Most efforts have gone into establishing criteria for the identification of metaphor. Identification procedures in the recent metaphor literature have usually focused on whether a word is used metaphorically within a specific discourse context; that is, one instance of a word, in a single conversation or a written text. For clarity here, I shall call these 'discourse approaches'. Lexicographers, on the other hand, are

concerned with a related but different issue: whether there is an established metaphorical meaning of a word, distinct from other meanings. This could be termed a 'lexical meaning approach'. The difference stems from the underlying goals of each group of scholars. Many (but not all) metaphor scholars are concerned with how a word use is regarded in a particular context by a particular speaker/ writer and his or her listener/ reader. They may then consider questions such as: what meaning was intended, how this is received, how this relates to the wider discoursal meaning, what the underlying ideology or world view of the text and speaker/ writer are, how these are interpreted by the listener/ reader, and similar questions. For example, in one of Cameron's studies (2007), a speaker talks of the process of bereavement and acceptance as being a *journey*. Cameron studies a number of uses of words around journeys in the discourse, and considers what they mean both within this conversation and to the relationship between the speakers involved over a period of years.

In contrast, dictionaries are concerned with how words are used conventionally, en masse, rather than with what a particular language user means. A dictionary does not, therefore, have to make a delicate decision about whether one particular instance of use is metaphorical. Rather, it has to show whether a collection of instances is distinct enough from other meanings of the same word to warrant its own sense, and if so, how it should be treated. A lexicographer would approach the example above, metaphorical *journey*, by analysing a large number of corpus citations to determine whether there is a frequent non-literal use. The lexicographer would probably look little wider than the 80 characters or so of each concordance citation, and they would certainly not analyse in detail what effects a single use of the word has on the participants in the discourse.

Most of the work on identifying metaphor has been undertaken within the discourse approach, and I discuss this first. Cameron's work includes one of the earliest and best-known studies within this approach. She carried out a detailed analysis of around 27,000 words of discourse from a primary school classroom in Britain and attempted to identify all the metaphors in it (2003). In more recent work, referred to above, (2007), she analysed transcripts of discussions between an IRA bomber and the daughter of one of his victims, also identifying all metaphors in around 27,000 words, from three discourse events. In both studies, she analysed how metaphors were used to convey speaker meaning and to build shared meaning. She writes that 'a necessary condition for linguistic metaphor is the presence in the discourse of a focus term or Vehicle, a word or phrase that is clearly anomalous or incongruous against the surrounding discourse' (2003: 59), and a further necessary condition is that the incongruity 'can be resolved by some "transfer of meaning" from the Vehicle to the Topic' (ibid, 60). She writes of the difficulty in pinning down metaphor because of the way 'language in use is continually stretched and bent' (ibid), concluding that there is no 'pre-existing watertight category to be "found" in the data' (ibid, 62). For lexicographers the way language is 'continually stretched and bent' is also an issue, but over a longer time period. Cameron studies how individuals stretch meaning within a discourse event, while lexicographers have to

deal with slower changes in meaning across the language as a whole.

There are two more recent identification procedures that take a similarly discourse-focused approach, MIP and MIPVU. These are probably the procedures most widely used by current metaphor scholars. MIP ('Metaphor Identification Procedure') was developed by a group known collectively as Pragglejaz (an acronym of the first names of the participating metaphor scholars: Peter Crisp, Raymond Gibbs, Alan Cienki, Gerard Steen, Graham Low, Lynne Cameron, Joe Grady, Alice Deignan and Zoltan Kövecses) (Pragglejaz, 2007). MIPVU extended and modified MIP, and was developed by scholars at the Vrije University (VU) of Amsterdam, led by Gerard Steen (Steen et al., 2010). MIP requires the analyst to read the entire discourse context and identify all lexical units. Each lexical unit is then considered, and the analyst needs to decide what its meaning is in the discourse context—that is, its 'discourse meaning', and whether it has a more basic meaning. Basic meanings, Pragglejaz write, are typically more concrete and immediate, and often historically older. In the next stage, if the discourse and basic meanings are related by a relationship of comparison, the discourse meaning of the lexical unit is considered metaphorical. MIPVU (2010) takes a similar approach, operationalised in a good deal more detail, with discussion and guidelines for dealing with the many borderline cases that arise at every stage. The procedure differs from MIP in that it focuses on the lexical form rather than the lemma, meaning that it does not allow for metaphoricity across parts of speech. Whereas MIP would allow for *squirrel* (verb, meaning 'save money') to be a metaphor from *squirrel* (noun, animal), MIPVU would not because they are different parts of speech: in other words, because there is no basic verb *squirrel*, meaning something like 'hide nuts', the sense 'save money' cannot be considered metaphorical. None of these three discourse approaches, Cameron's, MIP or MIPVU, make a distinction between a highly conventionalized metaphor and a new, creative one, an issue discussed below.

In contrast to these discourse approaches, Goatly (1997/ 2011) takes a 'lexical meaning approach', that is, he considers the identification of metaphor in terms of senses of words in general, rather than individual citations situated in a specific discourse context. Goatly grades degrees of metaphoricity, according to how he thinks a reader/ listener might process them. Table 1 is based on his classification (2001: 32), using his examples and terms, and my own summary of his descriptions.

Table 1: Goatly's classification of metaphor types

Label	Example	Description
Dead	*Germ*: a seed *Germ*: a microbe *Pupil*: a young student *Pupil*: circular opening in the iris	The connection between the two senses has become so distant with time that it is no longer recognised by most speakers.
(Dead	*Clew*: a ball of thread	The two senses have become formally

and) Buried	*Clue*: a piece of evidence *Inculcate*: to stamp in (not used in modern English) *Inculcate*: to indoctrinate with	different, or the original sense is no longer in use.
Sleeping	*Vice*: a gripping tool *Vice*: depravity *Crane*: species of marsh bird *Crane*: machine for moving heavy weights	The metaphorical meaning is conventional. The literal meaning is still in use and may be evoked by the metaphorical sense on occasion. The two senses are regarded as polysemous.
Tired	*Cut*: an incision *Cut*: budget reduction *Fox*: dog-like mammal *Fox*: cunning person	As above. However the metaphorical sense is more likely to evoke the literal sense here than in the previous category. The two senses are regarded as polysemous.
Active	*Icicles*: rod-like ice formations *Icicles*: fingers ("He held five icicles in each hand" Larkin)	The metaphorical sense is evoked entirely through the literal sense. There is no established lexical relationship between the two senses.

Goatly's five types of relationship between metaphorical senses and a literal counterpart range from highly innovative, 'Active', in his terms, through 'Tired' to 'Sleeping', 'Dead' and 'Dead and Buried'. Unlike the discourse approaches above, Goatly does not establish a binary distinction between metaphor and non-metaphor, and an analyst who wishes to do so using his classification can decide where they would want to draw this line. The dividing line that is consistent with most scholars' views would be between Tired and Sleeping, so that Goatly's Active and Tired types are considered to be metaphors while Sleeping, Dead, and Dead and Buried are not.

Hanks (2010, 2013) also takes the lexical meaning approach, and like Goatly, appeals to the way the reader/ listener processes the metaphor. He considers a number of criteria: etymology, concrete vs abstract meaning, frequency, syntagmatics and resonance (2010: 140), and concludes that the best criterion for identifying metaphorical senses is resonance: 'if one sense resonates semantically with another sense, then it is metaphorical, and if there is no such resonance, it is literal' (ibid). This would locate Hanks' distinction between metaphor and non-metaphor at the divide between Goatly's Tired and Sleeping categories.

I used Goatly's classification, also considering work by Lakoff (1987), to develop my own classification of metaphor (Deignan 2005), shown in Table 2 below. It is similar to Goatly's in that it proceeds from innovative through to dead metaphors, but

without his detailed coverage of historical and formally different uses. While referring closely to Goatly's work (which was first published in 1997), I added the use of concordance data to distinguish some categories, and I also used semantic tests similar to those used by Pragglejaz (2005, 39-47). Unlike Goatly and Hanks, I do not attempt to align this with how speakers might perceive or process meanings. Most metaphor scholars would probably consider the first three of the four categories, Innovative, Conventionalized, Dead and Historical, to be metaphorical. Hanks' notion of resonance would also, probably, cover these first three.

Table 2: Deignan's classification of metaphor types

Types of metaphorically-motivated linguistic expression	Example
Living metaphors	
1. Innovative metaphors	... the *lollipop* trees (Cameron, 2003) He held five *icicles* in each hand. (Larkin, cited by Goatly 2011: 32) (*icicles* = fingers)
2 Conventionalized metaphors	*grasp* (Lakoff 1987) (spending) *cut* (Goatly 2011)
3. Dead metaphors	*deep* (of colour) *crane* (machine for moving heavy objects) (Goatly 2011)
4. Historical metaphors	*comprehend*, *pedigree* (Lakoff 1987) *ardent*

While the distinctions made by metaphor scholars are useful and informative to lexicographers, the differences in their goals mean that the category boundaries that are of interest lie in different places. Metaphor scholars are interested in the type of relationship that exists between different contextual uses of the same word. This means that they focus on the boundary between metaphorical polysemy, and non-metaphorical polysemy, or between metaphorical polysemy and homonymy. In Goatly's terms, these boundaries are around Tired/ Sleeping/ Dead, and in my terms, between Conventionalized/ Dead/ Historical, depending on the researcher's operational definition. For example, another of the uses Cameron (2007) identifies in her data is *loss*, in the sense of 'bereavement', from the sense meaning 'misplace an object', the relationship between the two senses being metaphorical polysemy, Sleeping (Goatly) or Conventionalized (Deignan). This relationship can be contrasted with *for* used to talk about time, in 'for years' and used to indicate the beneficiary of an action 'I've brought a cup of tea for you'. Pragglejaz examined this example in context and concluded: 'The contextual meaning [time] contrasts with the basic meaning [transfer to recipient]. However, we have not found a way in which the contextual meaning can be understood by comparison with the basic meaning', and that it is therefore not an example of metaphor (Pragglejaz, 2007: 4).

The relationship is non-metaphorical polysemy, Dead (in Goatly's terms). However, for lexicographers, the difference between these pairs of meanings would not be important at the broad level of classification and splitting senses. In both cases, each member of the pair is an established sense and therefore each would be described in a separate sense in the entry for the word.

Which non-literal meanings should a dictionary (not) cover?

It is not the job of a dictionary to cover all possible meanings of a word. Indeed this would not be useful to users, as, in the case of figurative language especially, it would give no hint as to which meanings were expected, and therefore any pragmatic or stylistic entailment from the choice of unexpected uses could not be deduced. In this section I discuss which types of figurative language a dictionary might, or might not, cover.

Creative or anomalous metaphor

Most dictionaries do not aim to cover creative uses of words. The usual goal is to present unmarked native speaker language use. The phrase 'central and typical' is often used to describe this, in descriptions of the texts that should go into a reference corpus (Sinclair, 1991: 17), meanings and usages of words (Hunston 2002: 42), and the meanings and collocates most usefully presented in a dictionary (Hanks, 1987: 124-125). Hunston usefully deconstructs the phrase, showing through the discussion of corpus data that centrality and typicality overlap but are not synonymous (2002: 42-43). Using the criterion of centrality and typicality means that creative metaphors would not be covered. This is of course, a decision that is made for a particular point in time, given that it is generally agreed that metaphors are creative and/ or anomalous when they first enter the language, some of them becoming conventionalized over time (discussed in detail as the 'Career of Metaphor' Theory by Bowdle and Gentner, 2005). For instance, *stream* in the sense of 'consume data, usually music or TV, directly from an internet connection', was a new use to describe a new behaviour only a few years ago, and has rapidly become a conventional metaphor.

Both the discourse and lexical meaning approaches to metaphor identification discussed above consider creative, innovative, or simply anomalous metaphors as within their scope of study. For instance, Cameron identifies the metaphor *mountain* in her data, in the excerpt 'there's another mountain to climb now' (2007: 207). In this context, *mountain* refers to psychological struggles, and is a metaphorical extension from the literal sense of *mountain*. While this is an uncontroversial analysis for a metaphor scholar, for a lexicographer there is a decision to be made about whether this is a sufficiently central and typical meaning to be included as a separate sense. Neither Macmillan English Dictionary (MED) (2002), Collins COBUILD Advanced Learners English Dictionary (CCALED) (2006) nor Oxford Advanced Learners' Dictionary (OALD) (2010) includes this as a freestanding sense of *mountain*. However, MED defines the phrase *move a mountain* or *move mountains* as 'to do something so difficult that it seems almost impossible' (p. 913), CCAED defines have *a mountain to climb* as it being 'difficult for them to achieve what they

want to achieve' (934), while all three cover *make a mountain out of a molehill*.

Concordance data can be used to inform the decision about inclusion of senses, a decision that has to be made not just for metaphors of course, but for all unusual and creative uses. A dictionary might use a cut-off point similar to the one used in my classification (2005). To distinguish established from innovative metaphors, I argued that established metaphors must be evidenced by more than 1 citation of the sense per 1,000 citations of the word form, and the uses must be from several different sources (Deignan, 2005). This would justify the inclusion of *make a mountain out of a molehill*, which accounts for 10 citations of the 6364 citations of *mountain/ mountains* in the BNC. This is a rather arbitrary measure, and there might be grounds for varying it depending, for instance, on how polysemous a word is. For a highly polysemous word, each sense will naturally account for a lower proportion of concordance citations of the word. A corpus analysis of 1000 citations of *see* and inflections from the Oxford English Corpus (reported by Deignan and Cameron, 2014) found only one citation each of *see fit to*, *see action* (meaning 'fight as a soldier'), and *see eye to eye*. Yet clearly none of these is creative or anomalous, as a larger sample shows. *See fit to* is found 128 times in the BNC, *see action* 41 times, and *see eye to eye* 63 times. *See fit to* and *see eye to eye* are covered in all three of MED, OALD and CCALED, under the entries for *fit* and *eye* respectively, while *see action* is covered in MED only, under the entry for *action*.

The frequencies cited above justify these decisions, with the exception of the omissions of *see action*. While they may not seem particularly high, comparison with adjacent headwords is illuminating: the entry immediately before *see* in OALD and MED is for *sedulous*, which only occurs once in the BNC, while the entry in this position in CCALED is for *seductress*, which occurs 8 times in the BNC. Including an entry for a semantically heavy, monosemous word like *sedulous* somehow, intuitively, seems less controversial a decision than creating a separate sense for a fixed figurative expression from a polysemous word, but if frequency is used as a criterion, this is not justified.

Metonymy

Metonymy is the term for the process by which an aspect of something is used to stand for that thing; it also describes the product of that process. Metonymy is used here in its broad sense (following Lakoff and Johnson, 1980), to cover part-whole relationships, sometimes classified as meronymy and/ or synecdoche. Like metaphor, metonymy can generate terms for new concepts, and in the process thus generates new senses of words. For example, a car that uses more than one kind of power source is known as a *hybrid*, and a type of food that is relatively new to Britain, consisting of a round flat piece of bread, a 'wrap', wrapped round a filling such as chicken and/ or vegetables, is known as a *wrap*. *Hybrid* and *wrap* literally refer to one aspect of the car, and to one part—or, analysed differently—one characteristic, of the food; the terms are used metonymically to refer to the whole. In the process, the words *hybrid* and *wrap* have been given new meanings, which are now established enough to be described in dictionaries. Much older examples are

the use of *ear* and *eye* to refer to the facilities to hear and see respectively, and to judge the quality of what is heard or seen, in *an ear for music* or *an eye for a bargain*. This meaning of *ear* is covered as a numbered sense in most dictionaries while the meaning of *eye* is more usually covered as a phrase at the end of the entry for *eye*. This is presumably because something about *eye* strikes the lexicographer as more idiom-like; perhaps the connection between the physical sense and the discourse meaning, of judgment, seems more distant than the corresponding relationship for *ear*.

There are at least two types of metonymy that would not normally be included in a dictionary, and one that is debatable. The first is seen in the classic and often-cited example of metonymy, *ham sandwich*, referring to a customer, in Nunberg's 'The ham sandwich is sitting at table 20' (1979: 149). This use would, of course, fail the 'central and typical' test described above for metaphor, as would most metonymies whose meaning is derived through their contextual reference. Another type of metonymy that would not normally be included in a dictionary is one very pervasive in language. The literature on metonymy discusses instances such as 'the kettle was boiling' (Warren, 2003: 116), in which *kettle* metonymically refers to the contents of the kettle, and *book*, referring to the intellectual message of a book. In both cases, the metonymical meaning follows logically from the 'core' meaning—if, indeed, there is any 'core', non-metonymical meaning of either word when metonymy is understood in this way. Similarly, Kilgarriff (2008: 139) lists different uses of *bike:*

> 'Raphael doesn't often oil his bike.'
> 'Madeleine dried off her bike.'
> 'Boris's bike goes like the wind.'

writing that 'Different aspects of the bicycle—its mechanical parts; its frame, saddle and other large surfaces; its (and its rider's) motion—are highlighted in each case.' Kilgarriff argues that meaning extensions should be separate senses in a dictionary only when they exhibit 'lexical meanings which are not predictable from the base sense' (ibid). This clearly excludes this type of metonymy, which is best seen, like Nunberg's example of contextually referential metonymy, as the product of a normal function of language. Other predictable metonymies are COUNTRY FOR THE PEOPLE REPRESENTING IT; this is seen in the use of *England* to refer to the country's sporting teams, its entry for the Eurovision song contest, its army, and numerous other kinds of representative. The meaning of *England* in context can be derived through the reader/ hearer's knowledge of this metonymical relationship, combined with context, which will suggest which representative of the country—the sporting team, musician, army or other—is likely to be intended. Like Kilgarriff's examples, these meaning extensions are generated through well-known mechanisms, and should not normally be covered in a dictionary.

A less straightforward question concerning metonymy is how to deal with regular metonymies that are culturally motivated. English has a number of well-established metonyms, such as *White House*, *Downing Street* and *the palace*, by which a location

stands for the people who live or work there, in these examples the US administration, the UK prime minister, and the entourage of the UK royal family. These are motivated by normal metonymic processes, but the product has become conventionalized in the language. They are not completely transparent; for instance, *the palace* conventionally refers to the spokespeople for the royal family, rather than the family itself. Further, because they contain cultural information, a dictionary user from a different culture might not always be able to decode them. While a user will know at some level that a place can stand for person who works there, given that this is probably a universal, he or she might not know that Downing Street is the London residence of the UK Prime Minister. Similarly, a user might not know that while *Downing Street* and *the palace* are used metonymically, the name of the Prime Minister's country house, *Chequers*, or the British Queen's official residence, *Windsor Castle*, are never used in this way. Whether or not such uses are included in a dictionary will depend on editorial views about the inclusion of proper nouns and cultural information in addition to the lexicon proper.

Irony

Ironic uses are occasionally included in dictionaries. For example, the entry for *great* in CCALED has for sense 10 "You say **great** in order to emphasize that you are pleased or enthusiastic about something" and for sense 11 "You say **great** in order to emphasize that you are angry or annoyed about something" (2006: 634). This is presumably because enough concordance citations were found of the ironic use to warrant it having its own sense. However, as no explanation is given for these contrasting senses, the result might be puzzling for the learner who this dictionary is aimed at. Generally speaking though, the 'central and typical' criterion for inclusion rules out many, if not most, instances of irony, because the ironic effect is achieved by contrasting contextual pragmatic meaning with conventional meaning. This means that precisely in order to achieve its effect, the figurative, contextual meaning of an ironic use is not, normally, central and typical. In fact, it can be argued that the contextual, ironic meaning is not actually a separate meaning at all. Hanks writes that although ironic and sarcastic uses 'are undoubtedly exploitations of the normal meanings of the words involved, the words themselves have to be taken literally, at face value. The sarcastic, ironic or hyperbolic implicature of what is said takes place at the clause level, not at the lexical level' (2013: 236). Whether the contextual use is seen as having its own meaning or not, it cannot be regarded as a conventional meaning and would not therefore be included as a sense in the entry for a word.

How should literal and figurative meanings be ordered and treated?

For corpus-based dictionaries, frequency is usually perceived as an important factor in selecting headwords and ordering senses. As noted above, it is not uncommon for a metaphorical sense to be more frequent than a literal one. This means that someone using a dictionary to decode an unknown word is more likely to have encountered the metaphorical sense than the literal one. If we assume that the user starts from the beginning of an entry and works down, it makes sense to present this first. However, as Moon notes (1987), putting the more frequent, metaphorical

sense before the literal sense that it originated from disrupts the semantic flow of the entry. There is no straightforward solution, and decisions will be based partly on how the lexicographer thinks a dictionary will be used. In a dictionary for language learners in a hurry, it might be felt that the user wants to know the meaning that he or she has encountered in text, which is most likely to be the most frequent one in the corpus, assuming the corpus resembles the texts the learner uses. The learner may not be interested in other meanings; indeed, most language learners work hard to learn and retain just one meaning of a new word at a time and may not want to be distracted by other meanings, or by the origins of the word.

However, if a dictionary is likely to be used for encoding, and for language learners doing more extensive vocabulary building work, there is an argument for trying to structure an entry to demonstrate semantic connections between senses. These will probably aid memorability, and add interest. If this approach is taken, there is sometimes a case for mentioning the grounds of metaphorical extensions, especially when these are unpredictable because they are culturally specific, or even erroneous. For instance, we use many animal metaphors to signal human qualities (some are described in Deignan's guide to metaphors, 1995). In the metaphors of British English, rats are sneaky, rabbits talk too much, horses are playful, weasels are deceitful, and squirrels are good at saving. For some animals, the origins of these uses are clearer than others. While squirrels bury nuts for a less plentiful winter in a way that is clearly analogous to prudent human savers, it is far from obvious why *rabbit on* is used to mean 'talk too much in an uninteresting way'. For some, the metaphor seems motivated but not predictable: seeing rats negatively is probably common across many cultures, but it is not obvious that treachery specifically, rather than, say viciousness or disease, is associated with them for British speakers. Similes offer a rich source of such parallels, and many of these are not even believed by most speakers. For example, it is often noted that although we say 'sleep like a baby', many babies only sleep for short stretches at a time.

Metaphorical and metonymical uses often present a further problem for ordering. Corpus research has shown that they have a very strong tendency to occur in strong collocations and fixed expressions, bordering on classical idioms (Hanks, 2004; Deignan, 2005). The traditional place for idioms, and often for inflexible collocations, is at the end of an entry, usually the entry for the most lexically 'heavy' of the component words. This of course reflects the awkward status of fixed expressions and idioms in a division of language into grammar and lexis. They cannot be ignored but because they don't fit into either a grammar reference book or a dictionary organized around single words, they are swept up together and parked out of the way. Within a traditional dictionary, there does not seem to be a better solution. However, as publishing moves away from paper towards electronic resources, putting word senses and uses in one, fixed, linear order is not the only possibility. Electronic dictionaries offer the potential for nesting and embedding, automatically cross-referring, re-ordering according to user preferences, or searching in many ways other than traditional alpha order, but these are as yet far from fully exploited.

Dictionaries and metaphor scholarship

This chapter has concentrated on how dictionaries can identify and deal with figurative language. To conclude, I look briefly at the relationship the other way round: how dictionary use has contributed to metaphor scholarship. Techniques originally developed in corpus lexicography have been used by a number of metaphor scholars in recent years as the use of corpora has become mainstream. For example, Nerlich and her colleagues (2011) have used corpus techniques to examine metaphors of climate change in the Lexis Nexis database of US newspapers, while Philip (2011) has used them to study collocation and connotation in metaphor.

Aside from lexicographical techniques, dictionaries themselves have been important to metaphor scholars. The two major projects in metaphor identification discussed above, which resulted in the MIP and MIPVU procedures, both rely on referring to English language dictionaries as sources of knowledge about central and typical language. They are used in two ways. Firstly, Pragglejaz (2007: 15-16) notes that a dictionary—they use MED-- can be used to identify lexical units in a text. This is the first step of the metaphor identification procedure, where decisions have to be made about whether multiword items should be broken down and analyzed in their component words or should be treated as a single lexical unit. Pragglejaz treats all headwords as lexical units. Phrases, collocations and idioms described at the end of the entry are not treated as lexical units but analyzed word by word, with the exception of phrasal verbs, which are treated as holistic lexical units. There is a continuous cline between regular collocations, more fixed strings, such as idiomatic expressions, through to phrasal verbs and polywords such as *of course*, with no gap or identifiable point at which a line can be drawn to separate lexical units from groups of individual words that happen to collocate regularly. Using a dictionary to guide this decision at least ensures consistency and replicability.

The second way in which dictionaries can inform metaphor identification is in making the decision about whether there is a more 'basic' sense of a potential metaphor: "The main criterion for deciding whether two senses are sufficiently distinct is whether the contextual and the basic sense are listed as two separate, numbered sense descriptions in the dictionary" (Krennmayr, 2008: 104). Krennmayr discusses difficulties that can arise when dictionaries conflate clearly different senses, probably for reasons of space, and recommends using several different dictionaries to cross check. She concludes that despite some limitations, "corpus-based dictionaries are an important and useful tool in moving away from guesswork and intuition, instead supporting analysts' linguistic metaphor identification with carefully compiled language data" (2008: 114). Scholars of figurative language recognize the painstaking work of lexicography, its attention to consistency and concern with form, use and typicality, and how this can be used to inform their work. The relationship between metaphor scholarship and lexicography is an interesting and mutually productive one.

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