

# Metonymy and the semantics of word-formation

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## 1. Introduction

Metonymy tends to get short shrift in traditional linguistics texts. It is seen as the diachronic motivation for the development of new meanings of extant words, such as *hand* to mean ‘labourer’ (Trask 1996: 44-5; Murphy 2010: 94-5), and this implies that metonymy is one of the origins of polysemy. At the same time, it is recognized that metonymy is ubiquitous in discourse, which makes matters of reference problematic in principle. Thus, for example, *Whitehall* may not refer to the location but to the British government; and a sentence like *It’s not very far to where I’m parked* actually refers to the car being parked rather than the person.

This ubiquity is what makes metonymy so important for literary studies, and also what makes metonymy so important in cognitive linguistics, which has moved the study of figures such as metaphor and metonymy to centre stage, albeit as a factor connected with textual comprehension, rather than as a matter primarily concerned with diachronic development of individual words.

In this paper, I want to consider metonymy as a factor in the interpretation of lexical items rather than as a matter of interpretation of texts (though, clearly, the two are linked at some level). Much of the material from cognitive grammar is thus not relevant for the issues I shall deal with. At the same time, so much work on metonymy has been carried out within cognitive frameworks, and so many things that I will bring up have been developed with such frameworks, that it is impossible to be independent of that literature. Much of what I say has, therefore, a background in the cognitive literature, and I think that what I am proposing can be seen as a contribution within a cognitive framework.

## 2. Defining metonymy

There does not appear to be any generally accepted definition of metonymy, although reference by means of a word which shares “contiguity” or “proximity” with the intended referent is common (see e.g. Kövecses and Radden 1998: 39; Nerlich 2006: 108 (quoting earlier work); Allan 2008: 12). This is, in effect, an old-fashioned view of metonymy, where one word is used by metonymy for another word. More recent views of metonymy see metonymy not in words, or not only in words, but in thoughts and concepts, and across more domains than just language (see esp. Littlemore 2015). Even within the domain of language, it has been argued that all linguistic behavior is metonymical in that it uses words to stand for real-world entities, which are cognitively close (Kövecses and Radden 1998: 42 and references there). Nevertheless, with some reservations, we can use such a definition. It links *the pen* and *the sword* in *The pen is mightier than the sword* with writing and warfare, respectively. It relates *bottle* in *He took to the bottle* to alcoholic drink. It links *the crown* in *minister of the crown* to the sovereign and to the state. All these are classic cases of metonymy. The definition of “contiguity” or “proximity” seems to be slightly different in each of these instances, though, and this leads to questions as to just what is or may be

covered by such labels. This has been answered by authorities such as Kövecses and Radden (1998) by saying that “proximity” holds with an Idealized Cognitive Model (ICM). For those not familiar with this notion, for present purposes it can be read as being similar to a semantic frame, although the two are not identical. So in the ICM of reading a book there is a reader, a thing read, an action of reading, and possibly a time and place of reading (think, for example, of readings from the Bible in church). I will continue to use this notion as a guide to defining “proximity” in instances where obvious physical proximity is not involved.

First, though, there is another objection to such traditional notions of metonymy. This is summarized by Allan (2008: 11) as follows:

To date, despite a number of studies, there is no widely accepted definition of metonymy which distinguishes it clearly from metaphor, and attempts to clarify the relationship between the two types of mapping have proved inconclusive.

Allan herself (2008: 13) proposes that there is a cline between metaphor and metonymy, each of which is a prototypical category. Another approach might be simply to draw a distinction between literal and non-literal, although even that is difficult to maintain: is *leg* in *table leg* a metaphor, indicating a resemblance to a human or animal leg, or is it a literal use of the word? Speakers might well differ in their interpretation. Since the instances I wish to discuss in this paper are less marginal than the kinds of example which give rise to the theoretical problems, I shall be able to ignore them here. If readers prefer to replace *metonymic* and its congeners with *figurative* and its congeners, nothing will be changed in my argument.

Various authors have tried to provide a list of relationships which fall under the heading of metonymy. It is not clear to me that there is any complete list of potential metonymies that can be provided, nor any unique classification of metonymies. While lists of examples such as those given by Lakoff and Johnson (1980), Kövecses and Radden (1998), Nerlich (2006), Piersman and Geeraerts (2009) and Littlemore (2015) have the positive effect of stressing the wide range of possible patterns of metonymy, and hence the degree to which metonymy is widespread in human language, I do not believe that they delimit metonymy or act as a typology for metonymies, and I refer readers who are interested to these other works. What it is worth saying is that there is a wide range of patterns of metonymy discussed in the literature, from the fairly concrete CONTENTS FOR CONTAINER (*The milk tipped over*) to more abstract types such as MANNER FOR ACTION (*He tiptoed through the hall*), and INSTRUMENT FOR AGENT (*The knife sliced easily through the cheese*).

### 3. Some preliminaries about word-formation

#### 3.1 Morphemes and Humboldt’s universal

In this paper, I assume a morphemic approach to the creation of new words by affixation. The notion of morpheme may not be of similar value in discussion of conversion, the shift from one part of speech to another without any overt marking, such as *the land* > *to land*, *to whisk* > *a whisk*, a construction that I shall also consider.

In some quarters (e.g. Anttila 1989: 181) there is an implication that the expected relationship between meaning and form in morphology as in syntax is one-to-one. Some scholars refer to this as Humboldt’s universal (Vennemann 1972). A sentence like *The cats lie in the sun* seems to support such an analysis: each of the morphs corresponds to a single meaning, and on a morphemic level, each of those meanings regularly corresponds to that form. But such an ideal is far from general. Any instances of synonymy, homonymy or polysemy break with Humboldt’s universal, and all these categories are widespread. Consider synonymy: the two sentences in (1) could both be used under the same set of circumstances,

and if one is true, the other cannot be false, even if *freedom* and *liberty* are not always mutually replaceable in sentences, as is illustrated in (2).

- (1) a. The prisoners were demanding their liberty.  
b. The prisoners were demanding their freedom.
  
- (2) a. We believe in the freedom of the press.  
b. We believe in the liberty of the press.  
c. He's taking a liberty!  
d. \*He's taking a freedom.

*Cricket* ('a sport' or 'an insect') associates the same form with distinct meanings, and again breaches Humboldt's universal.

*Head* in *My head is aching* and in *The head of the bed* again associates the same form with distinct meanings, although in this case the meanings are related to each other by metonymy (the entity is used to denote the typical location of the entity).

Instances of allomorphy can be analysed as equivalent to instances of synonymy (and in a true Item and Arrangement grammar might have to be so analysed). Both take different forms and associate them with the same meaning. So /s/ and /z/ and /ən/ can all mean 'plural' in appropriate contexts.

In other words, both in syntax and morphology (or lexis and morphology, if you prefer), Humboldt's universal is at the very best a rough tendency, even if it appears to function as a principle driving children's acquisition of language (Clark 1993).

### 3.2 Metonymy in word-formation

In earlier papers, I have argued that metonymy plays a large part in word-formation, echoing developments within cognitive linguistics and, I hope, developing on what has been said there. In Bauer (2016) I argue that so-called exocentric compounds like *black-shirt*, *egg head*, *spoilsport* are all cases of figurative readings rather than special kinds of compound. Instances like *black-shirt* and *egg head*, traditionally known as bahuvrihi compounds, are interpreted through synecdoche, which many authorities view as a sub-type of metonymy, cases like *spoilsport* are metonymic in a wider sense (the agent is named by reference to the action). In Bauer (i.p.) I argue the case that all instances of conversion are also instances of figurative interpretation. *A whisk* from *to whisk* is naming the instrument after the action, again a form of metonymy.

Neither of these claims is novel (see Bauer 2016 for references on exocentric compounds, and Kövecses and Radden 1998 on conversion), except insofar as they claim that such interpretations are general and that they imply that there is no need to claim that specific patterns of word-formation are involved in the coinage of such innovations. If we can already explain such formations as figurative interpretations, specifically as cases of metonymy, there is no need to have sets of word-formation processes which are established precisely to provide a set of explanations for the very same forms. This is a simple application of Ockham's razor. Such instances show benefit to the study of word-formation by reducing the amount of material that has to be explained and/or generated by whatever module of the grammar deals with word-formation.

#### 4. The development of polysemy

Just what polysemy encompasses is notoriously controversial. It is perhaps uncontroversial to say that polysemy is a claim about the semantics of an individual lexical item (as opposed to homonymy, which deals with two or more lexical items), but just where the borderline between lexical items runs is not necessarily unambiguous. Allan (1986: 149-55) makes it part of the definition that polysemic senses but not homonymic senses can be readily derived from a single underlying meaning, and are contextually dependent. It is not clear to me that such a definition automatically includes figurative extensions or excludes changes between items of different parts of speech (such as *dust* and *to dust*), which both Allan (1986: 153) and I (Bauer et al. 2013: 9) would wish to class as instances of homonymy. However, rather than try to specify more closely just where the boundaries of polysemy go – a task whose futility is amply exemplified in the literature – I shall simply say that I take figurative extension in general to give rise to polysemy.

I make the general assumption, following from Humboldt's universal, that polysemy is not something which is inherently present, but something which develops. That is, I assume that linguistic items begin as monosemous, and become polysemous with usage (even though polysemy may also be lost, leading to monosemy: see Campbell 2013: 233). Urban (2015: 379) suggests that meanings develop from a prototypical meaning to less prototypical meanings, with the prototypical meaning remaining stable.

If this is the case, then we should expect to find monosemous affixes and polysemous affixes. Monosemous affixes are, in practice, rather rare, but I suggest that at least the following English affixes are monosemous,

- *-(i)ana*, as in *Victoriana*, *Nixoniana*, *cricketana*, *tobacciana* (Bauer et al 2013: 252). The meaning can be glossed as 'collection of materials associated with ~'.
- *cis-* as in *cis-alpine*, *cis-lunar*. The prefix is extremely rare, and means 'closer to the speaker than the noun implicit in the base'.
- *step-*, as in *stepfather*, *stepson*, *step-cousin*, *step-grandmother* (see the OED). The meaning can be glossed as 'related not by birth but by law', though Bauer et al. (2013: 244) cite occasional deviations such as *step-dog* and *step-car*, which are certainly rather less prototypical, but can still all fit under a gloss of 'acquired through marriage'.
- *tera-*, as in *terabyte*, *terawatt* meaning '10<sup>12</sup>'. There is a series of such prefixes (see Bauer et al. 2013: 427), with similarly technical meanings.
- *über-* (sometimes written as *ueber-* or *uber-*) as in *überbitch*, *übersensitive*. This is a new prefix (omitted in the discussions in Bauer et al. 2013) which means 'to an excessive degree'.

Typically, these affixes are rare (both in terms of types and tokens) or new or technical.

#### 5. Introducing polysemy in derivation as metonymy

Consider the suffix *-ation* in English which produces nominalizations of verbs. We can perhaps take the expected reading of this affix to be something like 'the event of performing the action of the verb', so that a typical use of *-ation* would be that illustrated in (3).

- (3) The teacher's demonstration of downstep met with great approval

However, *-ation* is used in words which denote result, product, instrument, location, agent, measure, path, patient, and state (Bauer et al. 2013: 209-12), as in the examples in (4).

- (4)
- a. The operation was a great success.
  - b. The concoction combines gin, cherry brandy, grenadine and other ingredients.
  - c. We used the children's drawings as decoration.
  - d. Most of them had moved off the reservation.
  - e. The administration intervened in the outcome.
  - f. The deceleration can cause shock and concussion.
  - g. The continuation of the line passes through the circumference of the circle at point B.
  - h. Submissions must be received by 5pm on the 22<sup>nd</sup>.
  - i. His preoccupation with death is a worrying development.

Many of these relations fall under the notion of proximity within the ICM, as discussed in section 2. More fundamentally we would have to say that all of the person who undertakes the action, the person or thing on whom or on which the action is undertaken, the location of the action, the instrument with which the action is undertaken, the result or outcome of the action, and so on are in close (physical or mental) proximity to the action itself, and that using one for the other falls within the definition of metonymy.

As a rather more complex example of an affix which is generally held to be polysemous, consider *-er* in words like *killer*, *lover*, *mixer*, *retriever*, and so on. Typically, perhaps prototypically, this affix denotes a human agent (Stockwell and Minkova 2001: 196; Hamawand 2011: 126). But even the short list of examples above shows that the suffix has more meanings than that. Precisely how many meanings should be associated with *-er* is unclear, but we can distinguish at least those listed below. Hamawand (2011: 126-7) sees rather more categories, as do Ryder (1999) and Panther and Thornburg (2002); the first three de-nominal categories could be merged.

*De-verbal nouns:*

Human agent (a distinction can be drawn between agents, habitual agents and professional agents): *baker*, *driver*, *killer*

Non-human agent: *retriever*, *scorcher*, *warbler*

Experiencer: *beholder*, *smeller*

Patient: *boiler* ('boiling fowl'), *keeper* ('person or thing worthy of being kept')

Instrument: *amplifier*, *lighter*, *mixer*

Location: *diner*, *sleeper*

Garment: *slipper*, *sneaker*, *sweater*

*De-nominal nouns:*

Practitioner: *astrologer*, *photographer*

Professional working with ~: *hatter*, *milller*, *thatcher*

Musician: *drummer*, *harper*, *trumpeter*

Person from: *Aucklander*, *Icelander*, *New Yorker*

Male: *widower*

*Nouns from other categories:*

Adjective: *teetotaller*

Number: *oncer*, *forty-niner*, *tenner*

Preposition: *downer*, *outsider*, *upper*

Phrase: *all-nighter*, *do-gooder*, *out-of-towner*

Most of these semantic types fall easily into instances of metonymy. ‘Male’ as in *widower*, is perhaps an exception, but even then, in traditional terms people who are widowed have to be either male or female, and the male has long been seen as the marked member of the pair, the one less likely to be left alive (though perinatal mortality may have had a strong influence in the other direction). The case for metonymic processes being involved in most of these meanings is made in great detail by Panther and Thornburg (2002), and it is perhaps not necessary to reproduce their solid argumentation.

There are two ways of looking at this. Some authorities (e.g. Basilio 2009, Littlemore 2015: 66) see the metonymy as holding between the base and the affix: a teacher is an agent closely related to the action of teaching. Others (e.g. Panther and Thornburg 2002) see the metonymy as holding between the various meanings of the affix (the agent in *teacher* is related by metonymy to the instrument in *amplifier*). Without denying the first of these links, which I will consider later in this paper, I wish to align myself with the second, and say that the polysemy of the affix is (largely) determined by metonymic interpretations of the central, prototypical meaning of that affix.

Having said that, I should also like to leave open the possibility that sometimes the metonymy affects the whole word and not just the affix. Consider, for example the word *sleeper* in the sense ‘tie’ on a railway line. The etymology of this usage is not entirely clear, but if it arises because railway sleepers look like people sleeping between the lines (which is not what the OED implies), I would consider this a metaphor affecting the whole word *sleeper*, and not just another meaning of *-er*. *Diner* in the sense of ‘location where one eats’ could arise by metonymy from *diner* ‘a person who eats’, rather than a separate meaning of *-er*. The distinction between whole-word figurative interpretation and affixal figurative interpretation is something that needs further investigation, but I shall not attempt to deal with it here.

## 6. Developing the notion of affixal polysemy as deriving from metonymy

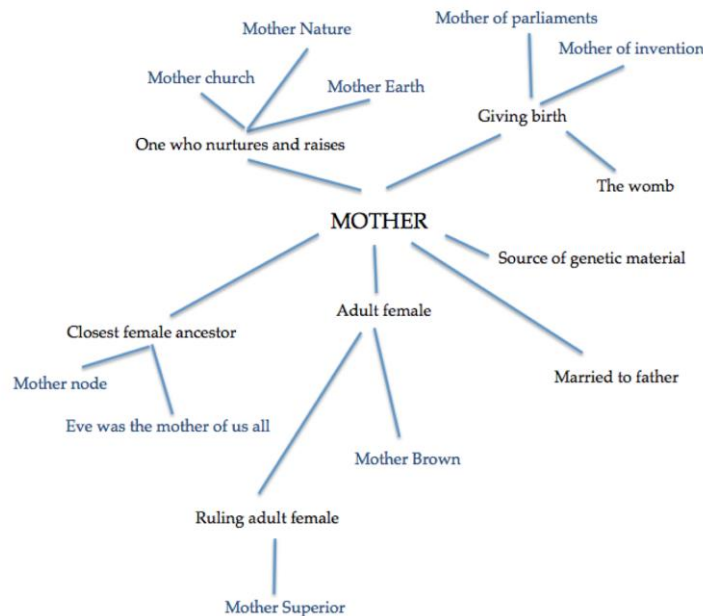
Once we have accepted the notion that the polysemy associated with affixes can be derived by figurative interpretation of that affix, and specifically by metonymy, a number of questions arise. The first question is the extent to which such derivation is preordained and unavoidable. A second question is whether the derivation of such polysemy follows predictable paths. And a third question is whether all affixal polysemy is metonymic. In this section I consider each of these questions.

### 6.1 The necessity of polysemy

The very fact that examples of monosemic affixation could be given (above, section 4) indicates that affixes need not develop polysemy, or at least have the possibility of a period of usage in which they are not polysemic. It may well be the case that frequent usage of a particular affix inevitably leads to polysemy, but even that is drawn into question by inflectional affixation. The third person singular present tense *-s* in English verb-forms such as *condemns*, *hospitalizes*, *invalidates* and so on retains a single (though complex) meaning. In other instances, whether or not something is considered polysemous may depend on the granularity of the semantic analysis. For example, though the prefix *un-* may be taken to indicate negativeness in *unbandaged*, *uncommon*, *undo*, *unearth*, *unperson*, and thus be monosemous, it is equally possible to see different types of negation in these various examples (contrary, gradable, reversative, privative, category-denying respectively; see Bauer et al. 2013: 364ff), so that the prefix is polysemous.

What we seem to have here is something analogous to radial polysemy (see, e.g., Fig 1) for the development of affixal meaning, but with the rider that the polysemy arises through cognitive processes driven by the interpretation of figurative usage. This has been argued for *-ation* and *-er* here, but Jurafsky's (1996) model of the semantics of diminutives seems to me to fit well into the same general model, although that is presented as universal rather than language-specific.

**Figure 1:** An example of radial polysemy outside word-formation



## 6.2 The predictability of polysemic developmental paths

Alongside the development of polysemy in *-ation*, we can consider the development of *-age*; alongside the polysemy in *-er*, we can consider the polysemy in *-ist*. In any of these cases, we find rather different paths of development of polysemy, either in terms of the distance travelled, or in terms of the direction taken.

The suffix *-age* on a verbal base can denote an event as in *carriage of goods*, *spillage*, an instrument in *carriage and pair*, a location as in *storage*, a result as in *cleavage*, a measure as in *shrinkage*, a patient as in *appendage*, *spoilage*, or sum of money as in *moorage*, *weighage*. Although there is a large amount of overlap between the meanings for *-ation* given above and the meanings for *-age*, there is not complete identity, with at least the sum of money meaning being peculiar to *-age*, and the agent meaning apparently missing. This implies that different suffixes may develop their polysemy to different degrees, and that they make take (slightly) different pathways.

The suffix *-ist*, like *-er*, creates nouns from verbs (*copyist*) or from other nouns, and some of the semantic categories of *-ist* formations are very similar to the *-er* categories outlined above. For example, alongside *trumpeter*, *drummer* and *harper*, we find *violinist*, *trombonist* and *harpist*, with both suffixes being used for practitioners of the relevant instrument. On the other hand, there is a set of words like *ageist*, *racist*, *sexist* which do not have any counterparts in *-er*, and there are no *-ist* formations for locations like *sleeper*, *diner*, or for instruments like *washer-drier*, *amplifier*. The suffix *-ist* attaches primarily to nouns, while *-er* attaches prototypically to verbs; both are used to denote humans closely related with the base

in some way, but the development of the polysemy is different, both in the degree of polysemy that has developed and in the path along which the polysemy has evolved.

Both of these instances indicate that even if we can predict that the polysemy of affixes will develop according to patterns of metonymy (and see immediately below for some amendment to this), we cannot predict how far the polysemy will develop for a given affix, nor a particular path of development of the metonymy. In this context, though, I should note that while predictability is important for many linguists, it is not necessarily as important within cognitive linguistics, where motivation rather than prediction has been the main focus (L. Janda, p.c.). I accept the motivational aspect willingly, but feel that prediction is also important, especially in typological contexts.

### 6.3 Is all affixal polysemy metonymic?

If it is the case, as suggested above, that there is a cline between metonymy and metaphor such that it can be difficult to tell where one ends and the other begins, we would expect to find the development of affixal polysemy by metonymy complemented by the development of affixal polysemy by metaphor. And there are such cases. Consider, for instance, the suffix *-itis*, whose literal meaning may be taken to be ‘inflammation’ as in *arthritis*, *laryngitis* (although the use of *larynx* as the base in the latter case is itself a case of metonymy, since it is the adjacent membrane which is inflamed rather than the cartilage of the larynx itself). In less formal usage as in *Mondayitis*, *electionitis*, it denotes, in the words of the OED, “a state of mind or tendency fancifully regarded as a disease”; in other words, there is a metaphor here, reaction to Mondays or elections being seen as like a disease. Panther and Thornburg (2002: 288) see the use of the suffix *-er* in *hooper* ‘dancer’ as metaphorical, in the sense that it compares people with animals. I suspect that it is the whole word that is interpreted by metaphor here, rather than the suffix, but am happy to accept that there may be words with *-er* (and other affixes) whose interpretation arises through metaphor.

## 7. Typological implications

It has been argued above that the meaning of affixes tends to start from a prototypical meaning, and diversify from that via a network of figurative (especially metonymic) readings, to show a range of polysemous meanings. It has also been argued that even where the same path of metonymies is followed, different affixes do not necessarily proceed to develop the relevant polysemy to the same extent, nor, indeed, to develop polysemy in the same direction.

If this behavior is repeated across languages (as we would expect), we can expect to find polysemous affixes gaining meaning in the same kind of way. We cannot, however, expect the same prototypical meaning in an affix to develop precisely the same metonymic readings in different languages. This is, in effect, what is reported in Bauer (2013), where markers that are used for nouns marking location are considered in detail, and are shown to have different prototypical meanings and different ranges of meaning.

Consider by way of illustration agentive affixation in a small number of languages. In Maori, the agentive prefix *kai-* is added to transitive verbs to form a noun denoting a human agent, as in *kai-koorero* AGT-speak ‘speaker, orator’ (W. Bauer 1993: 514). Bauer specifically notes that such formations do not produce instrument nouns.

In Finnish, the suffix *-ri* can denote an agent, an instrument or a location (Hakulinen 1957, cited in Luschützky and Rainer 2013: 1308), although Karlsson (1983) notes it as being only used to mark agents, and Sulkula and Karjalainen (1992) note it as being used both for agents and for instruments. This seems to suggest that it is used most widely for agents, then for instruments and least widely for locations.



In German, *-er* can mark agents (*Lehrer* ‘teacher’, *Raucher* ‘smoker’), instruments (*Bohrer* ‘driller = drill’, *Kühler* ‘cooler = radiator’), and processes (*Schluchzer* ‘sobber = sob’) (Fleischer and Barz 2007:152-4).

In just these three languages we see that although the extension of meaning in the suffix can be described as metonymical, affixes can be monosemous and when they do extend their meaning, they do not necessarily extend along the same path. Whether there are a limited number of possible paths, or default metonymies, as suggested by some scholars (Kövecses and Radden 1998: 63) is something that would require far more study to determine.

One difficulty here is that it may not be clear what is eliminated under this theory. Kövecses and Radden (1998: 40), reflecting the cognitive literature on the subject, talk about metonymy occurring where there is an idealized cognitive model (ICM) of a situation or event, and items are close to each other in that model. Given that idea, metonymy could in principle spread to anything else involved in the ICM. Note that the model is idealized, so it deals only with the necessities, not the possibilities. Thus although we might have an agent dealing with a collection of items connected to that agent, that is unlikely to be within a single ICM, and we must predict that we are unlikely to find a language where the equivalent of English *-er* and the equivalent of English *-iana* have the same form and that formal marker is viewed as polysemous. Similarly, the same polysemous marker is unlikely to mark both a collective and a diminutive.

To some extent there is danger of circularity here. One of the reasons that most linguists consider the *-er* in *killer* and the *-er* in *colder* to be homophonous but distinct morphemes is the lack of common meaning. Similar examples abound, especially in languages where the phonological inventory of affixes is relatively limited (as it is in English inflection, at least). Consider the examples in (5) below.

(5)	<b>absolutely</b>	<b>friendly</b>
	<b>arrival</b>	<b>personal</b>
	<b>cats</b>	<b>designates</b>
	<b>cords</b>	<b>towards</b>
	<b>cupful</b>	<b>hopeful</b>
	<b>dogs</b>	<b>Debs</b>
	<b>ineligible</b>	<b>inlay</b>
	<b>length</b>	<b>nineteenth</b>
	<b>skinny</b>	<b>synonymy</b>

In the examples in (5), there is extra evidence in the form of the word-class of the base, the word-class of the output, the potentiation of subsequent affixation, the range of allomorphs shown by the affix. In principle, though, meaning alone would suffice to set up distinct affixes as opposed to one polysemous affix. Despite this potential problem, I do not see this as being a great practical difficulty, and I think that the notion that the diachronic expansion of affixal meaning is due to figurative readings of the original meaning of the affix (and that polysemy of affixes is thus due to figurative readings) does allow some typological prediction.

To sum up, we can say that semantic change affecting affixes is predictable to the extent that it follows patterns of metonymy or other figurative usage, but is unpredictable in the sense that the particular metonymy, the path through the semantic maze of potential metonymies, is dependent upon the perceptions and cultural expectations of speakers, and not available for external evaluation.

## 8. Extending the domain of metonymy

Thus far, I have argued that the polysemy of derivational affixes, to the extent that it is driven by figurative interpretations, is predictable, and if it is predictable, it does not need independent semantic apparatus to support it. Furthermore, this has implications for typology. But this is not the only claim made in the literature about metonymy in the literature. Several authors, but most especially Janda (2011), in a very carefully argued paper, see the semantic relationship between base and derivative as being ruled by metonymy, as well. This has turned out to be a controversial claim within cognitive linguistics, with Brdar and Brdar-Szabó (2014) arguing that this particular step devalues the notion of metonymy, leading to an overuse of the term (see Janda 2014 for a rebuttal).

Let us return for a moment to the major claim above that the extension of meaning in the polysemy of derivation is brought about by figurative extension (including, notably, metonymy). Brdar and Brdar-Szabó (2014: 318) agree that such a position “would make sense”. Thus the agentive reading of *-ation* in *The deceleration can cause shock* (see (4f) above) is (or it would make sense to view it as) metonymy. Specifically, it is a case of the ACTION FOR AGENT metonymy. Another example of the ACTION FOR AGENT metonymy is found in the English noun *cook*, derived from the verb *to cook* by conversion. As was mentioned in section 3.2, many cognitive linguists accept conversion as an expression of metonymy. The action of cooking and the person who performs the cooking are both found within the same ICM, and the meaning is extended from the action to the agent. However, for Brdar and Brdar-Szabó (2014) the relationship between *bake* and *baker* is not a case of metonymy (while for Janda, it is). The difference between *to cook* and *a cook* on the one hand and *to bake* and *a baker* on the other is that there is an overt marker of the changed status within the lexeme *baker*, but not in *a cook* (where the overt marker of the change of status falls earlier in the DP). Brdar and Brdar-Szabó (2014: 334) justify this by saying that “metonymy is a paradigmatic operation”, while the addition of a suffix is a syntagmatic operation. Even this is a controversial statement. For many scholars (perhaps most recently Kastovsky 2005), there is a suffix in *cook*, it is just a zero-suffix. For such scholars, conversion and affixation are not different in this regard. But even if this view is rejected (and I personally would reject it), there is still an objection. *Cook* the verb and *cook* the noun are not members of the same paradigm: they take different inflectional paradigms and are thus separate lexemes. Therefore, it is not clear why the relationship between conversion pairs should be considered to be metonymic, since they fail the requirement on metonymy set by Brdar and Brdar-Szabó. I foresee two possible counter-arguments. The first is that the two lexemes *cook* are identical at some deeper level, and it is this deeper level which is required for the metonymy to work. There is a problem with this, however, in that Chomsky (1970), who introduces just such a deeper level, believes that *criticize* and *criticism* are also identical at this deeper level and so fails to distinguish between conversion and affixation as well. The second possible counter-argument is that metonymy does not hold at the level of the lexeme, but at the level of the stem. However, the stem is just an overt representation of the lexeme: it so happens that in English the stem is usually homophonous with the citation form of the lexeme, while in more highly inflecting languages, some inflection has to be added to the stem to give the citation form of the lexeme. This is not significant: neither the stem nor the lexeme of the noun *cook* is in a paradigmatic relationship with the relevant part of the verb *cook*.

At this point, there are two possibilities. Either we accept that conversion is a matter of metonymy, and then allow suffixation also to be a matter of metonymy, parallel with conversion. Or we deny that conversion is metonymy at all, because derivational affixation is not metonymy and conversion is parallel to derivational affixation. In other words, either

Brdar and Brdar-Szabó (2014) are wrong, or all the people who have claimed conversion as metonymy are wrong (including Cetnarova n.d., Dirven 1999, Schönefeld 2005). As someone who has argued that there are independent grounds for seeing conversion as being metonymical (Bauer i.p.), I tend towards Janda's position of seeing derivation as producing instances of metonymy.

However, we need to consider the argument put by Brdar and Brdar-Szabó (2014: 322) that reversative negative *un-* (as in *uncover*, *undo*, *undress*, *unwind*) cannot be metonymical because it cannot be the case that "one state of affairs stands metonymically for its opposite". There are at least two possible responses. The first is to accept the point, and say that clearly not all derivational morphology is metonymic, but this does not deny that much of it is. The other is to argue that negation may, indeed, be metonymic. Such an argument would have to run as follows. In the ICM for undressing, we find the action of undressing, the actor in the action (which could be the same as the person who is dressed or could be someone different, a *dresser*), the person who is undressed, a location (which might be a changing room, a bedroom, or just a *dresser*), and possibly a destination for the cast-off clothing. But implicit in the notion of undressing is the notion that the person being undressed was first dressed: we cannot have the undressing without the dressing. This means that although the event of dressing and of undressing are not simultaneous, or even necessarily proximate, it is nevertheless the case that the two must be closely linked in thought, and that this link is made overt by having a reversative prefix, so that the base of dressing is present in the description of undressing.

If we accept such a position, then we run into one of Brdar and Brdar-Szabó's (2014: 314) greatest problems, that calling this (and the examples Janda uses) "metonymy" "would lead to an unconstrained use of the notion of 'metonymy', rendering it virtually vacuous". The line of argumentation on one level seems odd: metonymy is "almost as ubiquitous as metaphor" (Brdar and Brdar-Szabó 2014: 316; personally, I would have thought more so), so because of its ubiquity we must limit it and make it less ubiquitous. Of course, it is open to any scholar to define metonymy in a way which allows for a greater or more constrained use of the term, but the definitions that are widespread in the literature do seem to allow for the relatively "unconstrained" reading of metonymy, and Janda is not at fault for using those definitions. Any more constrained definition has to be proposed and argued for.

Whatever we may believe about that, let us take Janda's position seriously for the moment. If Janda is right, then what derivation does, in principle, is provide overt marking of metonymy. Where affixes are monosemic, it tells listeners precisely what metonym to consider; where affixes are polysemic, it tells listeners that a metonymical interpretation is required, and leaves it to the listener's experience with the affix and pragmatic inferencing to determine precisely which metonymy is involved. If this is the case, then the fact, if it is one, that such a use of metonymy is relatively unconstrained is counterbalanced by the fact that it is overtly marked, and points the listener in the right direction for an interpretation.

## 9. Conclusion

In this paper, I have listed some of the ways in which metonymy is being seen as interacting with word-formation in the domain of cognitive linguistics, and I hope that I have made some minor contribution to the discussion. In the case of bahuvrihi compounds, Ockham's razor leads us to find this analysis convincing since it does away with the need of a classification of compounds as endocentric and exocentric: the distinction is already covered by figurative readings. In the case of conversion, Ockham's razor again does away with the need for a category of conversion, because the process is already covered by metonymy. In the case of the diversification of meanings of affixes, an analysis based on figurative extension constrains

the possible development of the meanings of affixes. It is not clear to what extent paths of meaning development are constrained, at the moment it looks as though they may not be, which has implications for the kinds of question we can ask in morphological typology. If affixation is the overt marking of metonymy (or, more widely, of figurative reading), then we again have constraints on affixation – always remembering that what fits into the relevant ICM is partly determined by culture and not purely by linguistic factors. This again has implications for the kinds of question we can reasonably ask in a morphological typology. The benefits in these last two cases are that we do not have to have explicit semantics for all readings of all affixes: we may need a prototypical reading, we may not even require that much. In other words, the recognition of figurative usage is making the grammar simpler.

Having said that, there may well be some interaction between lexicalization and figurative interpretation, since if the *-er* suffix in a particular form gets lexicalized with an agentive or instrumental meaning, that meaning may be passed down to subsequent derivatives. This is not, I think, an objection to the notion of metonymy in word-formation, but may require further consideration.

## Acknowledgements

I should like to thank Liza Tarasova and Natalia Beliaeva for helping improve the conference presentation, those members of the audience at MMM11 who provided me with feedback on this paper, and Laura Janda for her comments on an earlier version and her encouragement. None of these people is responsible for the use I have made of their comments.

## References

- Allan, K. (2008) *Metaphor and metonymy: a diachronic approach*. Chichester, W. Sussex: Wiley-Blackwell.
- Allan, K. (1986) *Linguistic meaning*. London and New York: Routledge & Keegan Paul.
- Anttila, R. (1989) *Historical and comparative linguistics*. Amsterdam/Philadelphia: Benjamins.
- Basilio, M. (2009) The role of metonymy in word-formation. In: K-U. Panther, L.L. Thornburg & A. Barcelona (Eds.), *Metonymy and metaphor in grammar*. Amsterdam and Philadelphia: Benjamins, 99-144.
- Bauer, L. (2013) Deriving locational nouns. *SKASE Journal of Theoretical Linguistics* 10 (1): 2-11.
- Bauer, L. (2016) Re-evaluating exocentricity in word-formation. In: D. Siddiqi & H. Harley (Eds.), *Morphological metatheory*. Amsterdam/Philadelphia: Benjamins, 461-477.
- Bauer, L. (i.p.) Conversion as metonymy. To appear in *Word Structure*.
- Bauer, L., R. Lieber & I. Plag (2013) *The Oxford reference guide to English morphology*. Oxford: Oxford University Press.
- Bauer, W. (1993) *Maori*. London and New York: Routledge.
- Brdar, M. & R. Brdar-Szabó (2014) Where does metonymy begin? *Cognitive Linguistics* 25: 313-340.
- Campbell, L. (2013) *Historical linguistics*. 3<sup>rd</sup> edition. Edinburgh: Edinburgh University Press.
- Cetnarowska, B. (n.d.) Conversion as metonymy and the question of recursiveness. Downloaded from academia.edu.
- Chomsky, N. (1970) Remarks on nominalization. In: R.A. Jacobs and P.S. Rosenbaum (Eds.), *Readings in English transformational grammar*. Waltham, MA: Ginn, 184-221.
- Dirven, R. (1999) Conversion as conceptual metonymy of event schemata. In: K-U. Panther & G. Radden (Eds.), *Metonymy in language and thought*. Amsterdam/Philadelphia: Benjamins, 275-287.
- Clark E.V. (1993) *The lexicon in acquisition*. Cambridge: Cambridge University Press.
- Fleischer, W. & I. Barz (2007) *Wortbildung der deutschen Gegenwartssprache*. Tübingen: Niemeyer.
- Hakulinen, L. (1957) *Handbuch der finnischen Sprache*, 1. Band. Wiesbaden: Harrassowitz.
- Hamawand, Z. (2011) *Morphology in English*. London/New York: Continuum.
- Janda, L. (2011) Metonymy in word-formation. *Cognitive Linguistics* 22: 359-392.
- Janda, L. (2014) Metonymy and word-formation revisited. *Cognitive Linguistics* 25: 341-349.

- Jurafsky, D. (1996) Universal tendencies in the semantics of the diminutive. *Language* 72: 533-578
- Karlssohn, F. (1983) *Finnish Grammar*. Porvoo: Söderström.
- Kastovsky, D. (2005) Conversion and/or zero: word-formation theory, historical linguistics, and typology. In: L. Bauer & S. Valera (Eds.), *Approaches to conversion/zero-derivation*. Münster: Waxmann, 31-49.
- Kövecses, Z. & G. Radden (1998) Metonymy: developing a cognitive linguistic point of view. *Cognitive Linguistics* 9: 37-77.
- Lakoff, G. & M. Johnson (1980) *Metaphors we live by*. Chicago/London: University of Chicago Press.
- Littlemore, J. (2015) *Metonymy*. Cambridge: Cambridge University Press.
- Luschützky, H.C. & F. Rainer (2013) Instrument and place nouns: A typological and diachronic perspective. *Linguistics* 51: 1301-1359.
- Murphy, M.L. (2010) *Lexical meaning*. Cambridge: Cambridge University Press.
- Nerlich, B. (2006) Metonymy. In: K. Brown (Ed.), *Encyclopedia of language and linguistics* Vol VI. Oxford: Elsevier, 109-113.
- Panther, K.-U. & L.L. Thornburg (2002) The roles of metaphor and metonymy in English *-er* nominals. In: R. Dirven & R. Pörings (Eds.), *Metaphor and metonymy in comparison and contrast*. Berlin/New York: Mouton de Gruyter, 279-322.
- Piersman, Y. & D. Geeraerts (2009) Metonymy as a prototypical category. *Cognitive Linguistics* 17: 269-316.
- Ryder, M.E. (1999) Bankers and blue-chippers: an account of *-er* formations in present-day English. *English Language and Linguistics* 3: 269-297.
- Schönefeld, D. (2005) Zero-derivation – functional change – metonymy. In: L. Bauer & S. Valera (Eds.), *Approaches to conversion/zero-derivation*. Münster: Waxmann, 131-159.
- Stockwell, R. & D. Minkova (2001) *English words*. Cambridge: Cambridge University Press.
- Sulkula, H. & M. Karjalainen (1992) *Finnish*. London/New York: Routledge.
- Trask, R.L. (1996) *Historical linguistics*. London: Arnold.
- Urban, M. (2015) Lexical semantic change and semantic reconstruction. In: C. Bowern & B. Evans (Eds.), *The Routledge handbook of historical linguistics*. London/New York: Routledge, 374-392.
- Vennemann, T. (1972) Phonetic analogy and conceptual analogy. In: T. Vennemann & T.H. Wilbur (Eds.), *Schuchardt, the Neogrammarians, and the transformational theory of phonological change: four essays*. Frankfurt: Athenaeum, 181-204. (Cited in Hock, H.H. 2003. Analogical change. In: B.D. Joseph & R.D. Janda (Eds.), *The handbook of historical linguistics*. Malden, MA: Blackwell, 441-460.)