Interpreting Semantic Extension:
Metaphor and Metonymy on Different Levels of Lexical Categorization

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1. Introduction

It has become popular in 'cognitive' varieties of linguistics to use the categories 'metaphor' and 'metonymy' to explain the links between polysemous meanings of a lexeme (on metaphor see Lakoff and Johnson 1980, Lakoff 1993, Barcelona 2000; on metonymy see especially Panther and Radden 1999). Metaphor, in the words of a recent formula (Barcelona 2000: 3) 'is the cognitive mechanism whereby one experiential domain is partially "mapped", i.e. projected, onto a different experiential domain so that the second domain is partially understood in terms of the first one'. Metonymy, by contrast, 'is a conceptual projection whereby one experiential domain (the target) is partially understood in terms of another experiential domain (the source) included *in the same common experiential domain*' (Barcelona 2000: 4; italics original). This paper will explore the application of these categories to polysemous meanings of the Warlpiri verbs *pakarni* (examples (1)–(8)) and *katirni* (examples (9)–(12)). (Unattributed examples are from my own field notes).

Pakarni 'hit'

(1)   'Hit':
        karnta-ngku   ka   maliki paka-rni   watiya-kurlu-rlu.
        woman-ERG   AUX   dog   hit-NPST   stick-PROP-ERG
        'The woman is hitting the dog with a stick.'

(2)   'Kill':
        "Yuu,   wiyarrpa   ka-rlipa-jana   paka-rni
        Yes   poor thing   AUX-122S-333O   kill-NPST
        wirriya-wirriya-ju."
        boy-boy-TOP
         "Yes, we killed the boys, poor things." (Napaljarri and Cataldi 1994: 150)

(3)   'Pierce':
        Kujaka-lu   yangka   rdaku-rlangu   pangi-rni,
        AUX.REL-333Sthat   hole-for example   dig-NPST
        yapa-ngku,   ngula-ka-lu   piki-ngki
        person-ERG   AUX.REL-NPST-333S   pick-ERG
        paka-rni.
        hit-NPST
        'When people dig holes for example, they pierce (the ground) with a pick.' (Warlpiri Lexicography group: *pakarni*)

(4)   'Obtain by *paka*':
        Palya-lu-ngalpa   marna-jangka paka-ka!
        gum-PL.SBJ-122O   spinifex-EL   hit-IMP
        'Make us some resin from the spinifex.' (Warlpiri Lexicography
        group: *palya*)

(5)   'Make by *paka*'
        Karli   ka-lu   paka-rni   manja.
        boomerang   AUX-333S   hit-NPST   mulga
        'They chop (wood for) boomerangs from mulga trees.' (Warlpiri Lexicography
        group: *paka-rni*)

(6)   'Paint':
        Paka-rnu-lpa-lu-nyanu   karrwarawara-rlu   karlji-ngki.
        hit-PST-IMP-333S-REFL   paint-ERG   pipeclay-ERG
        'They painted each other with stripes of white pipe-clay.'   (Warlpiri
        Lexicography group: *pakarni*)

(7)   'Perform (dance, ceremony)'
        Wati-patu-rlu ka-lu   purlapa   paka-rni
        man-PL-ERG   AUX-333S   corroboree   hit-NPST
        jalyirrpa-kurlu-rlu   manu   kuruwarri-kirli-rli.
        leaf-PROP-ERG and   design-PROP-ERG
        'The men are dancing the corroboree decorated with leafy branches and
        with painted designs' (Warlpiri Lexicography group: *pakarni*)

(8)   '(disease) Affect':
        Kuntulpa-rlu   kurdu   wita   paka-rnu.
        cold-ERG   child   small   hit-PST
        'The baby has a cold.' (Warlpiri Lexicography group: *pakarni*)

Katirni 'step/press on'

(9)   'step on'
        kurdu-ngku   ka   kati-rni   mangarri.
        child-ERG   AUX   step on-NPST   bread
        'The child is stepping on the bread.' (96TR)

(10)   'Kill by *kati*'
        Kirlilpi-lpa-rnalu   katu-rnu.
        bandicoot sp.-IMP-111S   stamp-PST
        'We were killing Desert Bandicoots by stamping on them.' (Warlpiri
        Lexicography group: *katirni*)

(11)   'Dance'
        Ya-ninja-rla-lu   pirri-ma-nu,   yarlu-ngka-ju
        come-INF-SER-333S   sit down-PST   open-LOC-TOP
        kala-lu   katu-rnu.
        AUX.USIT-333S   dance-PST
        'Having come they sat down, they danced out in the open.' (Warlpiri
        Lexicography group: *katirni*)

(12)   'Strengthen'
       Ngurrju-lku   *ka-rna*   *nyina*   *Muku-ju-lu*
       well-now   AUX-1S   be.NPST   all over-1O-333S
       katu-rnu   *pirlirrpa-rlu.*
       press-PST   spirit-ERG
       'I am well now. I'm feeling strong all over (lit. 'The spirits have
       pressed on me (= strengthened me) all over).' (Warlpiri Lexicography
       group: *katirni*)

1.1 Metaphor

In metaphors, one concept (the vehicle) is used as a model for another unrelated concept (the target). In (13) (=8), the invisible event of being infected by a cold (the metaphorical target) is mapped onto the everyday event of being struck (the metaphorical vehicle): a disease's affliction of a person is represented as an ordinary 'striking' event.

(13)   *Kuntulpa-rlu*   *kurdu*   *wita*   *paka-rnu.*
       cold-ERG   child   small   hit-PST
       'The baby has a cold.' (Warlpiri Lexicography group: *pakarni*)

Similarly, in (14) (=12), the metaphorical target of the strengthening action of supernatural agents is represented as 'stepping/pressing':

(14)   *Ngurrju-lku*   *ka-rna*   *nyina*   *Muku-ju-lu*
       well-now   AUX-1S   be.NPST   all over-1O-333S
       katu-rnu   *pirlirrpa-rlu.*
       press-PST   spirit-ERG
       'I am well now. I'm feeling strong all over (lit. 'The spirits have
       pressed on me (= strengthened me) all over).' (Warlpiri Lexicography
       group: *katirni*)

1.2 Metonymy

In metonymic extensions one meaning is not used as a model for another and there is no relationship of mapping or similarity established between vehicle and target. Rather, a linguistic element, instead of holding its typical reference, refers instead to something contiguous to this reference, either actually contiguous in space and time, or conceptually contiguous. Standard examples of metonymic relations are cause/effect, part/whole, possessor/possessed—any meaning extension that led from one member of these pairs to another would be classed as metonymic.

For Warlpiri *katirni*, we can consider sentences (15) (=10) and (16) (=11) as cardinal examples of metonymy. The core meaning of the verb *katirni* is something like 'step/press on'; in (15) the meaning of the verb shifts to denote not only the action of stepping on, but also the effect that this has, namely the death of the object:

(15)   *Kirlilpi-lpa-rnalu*   *katu-rnu.*
       bandicoot sp.-IMP-111S   stamp-PST
       'We were killing Desert Bandicoots by stamping on them.' (Warlpiri
       Lexicography group: *katirni*)

In (16), *katirni* is extended metonymically to denote not simply the action of stepping (stamping), but the whole process of dancing, of which stamping is a central part:

(16)   *Ya-ninja-rla-lu*   *pirri-ma-nu,*   *yarlu-ngka-ju*
       come-INF-SER-333S   sit down-PST   open-LOC-TOP
       kala-lu   *katu-rnu.*
       AUX.USIT-333S   dance-PST
       'Having come they sat down, they danced out in the open.' (Warlpiri Lexicography group: *katirni*)

In both these sentences, then, the core meaning 'step/stamp on' is related by spatio-temporal contiguity to the extended one: killing *by* stepping, and dancing *with* a stepping (stamping) movement.

2. The problem of spurious sense division

Analysis based on metaphor and metonymy has become increasingly common in discussions of lexical semantics, but it faces a challenge because of the distinction on which it depends between 'core' and 'extended' senses. The question that arises is whether all of the senses treated as polysemous 'extensions' from a core are necessarily best thought of in those terms. If we decide that we have to recognize a lesser degree of polysemy in verbs like *pakarni* and *katirni*, where does this leave the metaphorical and metonymic account of their meaning relations?

There are two cases in particular where reluctance to recognize 'separate' meanings might be appropriate First, the so-called 'actual-potential' polysemies like 'hit' and 'kill', which are widespread and culturally entrenched in Australian languages (O'Grady 1960; Dixon 1980: 103)—compare the product-source polysemies in nominals, which raise identical analytical questions: some Warlpiri examples are in (17):

(17)   *yurrkalypa* 'nasal mucus; head-cold'
       yinarrki 'spider; cobweb'
       yulju 'elbow of tree appropriate for boomerang; boomerang prior to trimming'
       wirliya 'foot; track'
       watiya 'tree, stick'
       warlu 'fire; firewood; match; hot to touch'
       pinkirrpa 'wing; wing feathers'
       parra 'day; sunlight'
       parla 'leaves; leafy branch'
       nyurnu 'sick; dead'
       ngalkirdi 'witchetty bush; edible grub found therein'
       ngapa 'water; source of water; rain'
       makarra 'female reproductive organs; womb; afterbirth'
       kurra 'sore; pus'
       kuntulpa 'cold; influenza; cough'
       kuna 'excrement; anus; intestines'
       kulu 'anger; fight'
       jurlarda 'native bee; native beehive; sugarbag'
       jangarnka 'beard, chin' (Hale: 1995)

If one meaning is labelled 'core' and the other 'extended', with the two seen as related by metonymy, we can ask whether this doesn't obscure the fundamental conceptual identity which these terms may actually have.

The other case where we might be reluctant to diagnose separate meanings is that of all metaphors. Is it desirable to say that in the case of a metaphor-based extension like that of *pakarni* in (13) or *katirni* in (14) we have a separate meaning of the verb which is conceptualized in terms of the core meaning? Won't this just lead to a proliferation of new meanings every time a verb is used in a non-literal way, and doesn't it take too much for granted about what speakers' conceptualizations actually are?

To think about these questions it is helpful to bear in mind some general features of semantic analysis.

First of all, note that the analysis of non-core meanings into metonymy and metaphor applies to the English translations of Warlpiri verbs. In fact, it is only in some translation metalanguage that the meanings can be brought to light and discussed in the first place: the only way we can talk about the different senses of a Warlpiri lexeme is by providing a paraphrase of them in some different semiotic system—here, ordinary English.

Given this, we should obviously be wary about reading into Warlpiri distinctions that may only be the result of our choice of metalanguage. So our glosses of Warlpiri lexemes, and the statuses of 'core' and 'extended' attributed to them, have to be interpreted quite strictly as theoretical terms within a metalanguage and not as necessarily revealing the status and interrelations between different senses in a psychologically realistic way for Warlpiri speakers. The claim that the core meaning of Warlpiri *pakarni* is something like 'hit', and that the meaning 'paint' in (6) is a semantic extension from this core cannot be a claim of any necessary identity between Warlpiri and the metalanguage with respect to the separateness of these two meanings.[1]

If this is the case, then, what becomes of the explanation of extended senses in terms of metaphor and metonymy? Ideally we might hope that these categories *would* have genuine reference to speakers' conceptual processes, so that semantic theory wasn't merely tinkering with terms in a metalanguage.

3. Lexical categorization, meaning difference and referent typicality

The claim of this paper is that metaphor and metonymy retain significant explanatory usefulness in spite of the restriction of their applicability to metalanguage glosses. I will argue for this claim through a reflection on the categorizing function of language.

A linguistic unit can be considered as (or as the name of) a category which groups together a variety of disparate members and establishes an equivalence between them (Ellis 1993: 29; Brugman 1983). The equivalence consists in their all being deemed to be members of that category. To appropriate a famous example (Wittgenstein 1963:§66ff), the noun *game* establishes an equivalence between a variety of dissimilar things in the world (hockey, chess, hide-and-seek), allowing them all to be treated as similar (see Wierzbicka 1996: 157-60 for an alternative perspective).

This categorization takes place on many different levels, but I will idealize by considering there to be just three: a micro-level, a macro-level and an intermediate level between them.

Micro-level categorization is the ordinary, unmarked use of a lexeme to refer to typical referents as they come into our experience for the first time, for example the use of the noun 'flower' to refer to a particular token of a flower which we have never previously seen. This type of categorization is essential to speakers' ongoing use of language to refer to the world. As part of everyday unmonitored language use it has the following characteristics: it is almost instantaneous, in that speakers do not hesitate about how to name a novel prototypical token of the lexical category in question, it is in keeping with the normal usage of the speech community, and it does not involve any particular metalinguistic awareness.

At the opposite extreme, the macro-level of categorization consists in the conscious assimilation of atypical tokens to a pre-existing lexical category. This is the domain of many linguistic phenomena, including conscious irony, exaggeration, understatement and

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[1] For discussion of the problems involved in distinguishing the different senses to be attributed to a word see Geeraerts 1993, Tuggy 1993 and, on a more applied level, Jarosová 2000.

other types of rhetorical effect, and, in particular, many types of consciously employed metonymy and metaphor, which, in English, may or may not be explicitly tagged as such through the use of metalinguistic hedges like 'so to speak' and 'as it were'. Here the use of a lexical item for an atypical referent involves a high degree of self-conscious, metalinguistic awareness, since it represents a departure from the typical referential norms of the speech community. Metaphorical categorization on this level in English ranges from more conventionalized uses like that of *soared, red-hot* and *marry* in (18) to highly novel, culture-specific and short-lived categorizations like the metaphor in (19), which uses the image of nibbling a liberally battered sausage (*battered sav*) as a metaphor for travel to a desirable destination, and which would be impenetrable without highly particularistic cultural knowledge:

(18)   *my heart soared*
        Optimality is red-hot
        to marry necessity to convenience

(19)   *[Australia has still] got enough batter on our sav to keep the world nibbling* (Metro section, Sydney Morning Herald, September 14-20, 2001, p.6)

Because the ordinary meaning of the metaphorically used term is very clear for all these cases, such uses will be taken as involving a departure from the word's typical sense: one's heart is not capable of flight and cannot therefore *soar*, a theory does not have a temperature, abstract concepts cannot *marry*, and the world cannot collectively *nibble* a single *battered sav*. The particular types of atypical categorization also vary from culture to culture: as Cliff Goddard (forthcoming) points out, it seems likely that conscious lexical metaphor has taken off in Western culture and its languages more than in many others. The Warlpiri initiation register (Hale 1971), contrastingly, involves types of atypical, antonymic categorization that are not typical of English.

These two extremes jointly define the residual intermediate level of lexical categorization. This is the application of lexemes to non-central referents, but referents for which the lexeme cannot be counted as having any particular metaphorical or consciously conceptualizing role. These categorizations can correspond to common meanings of the word, but ones which would not be judged as the most typical or the ones volunteered in definitions. In (20)–(22), for example, the activity referred to by the verbs in the (a) sentences is central and prototypical for those verbs, whereas in the (b) examples it is not.

(20)   a. *Dinner is baking in the oven.*
        b. *That poor flower is baking in the direct sun.*

(21)   a. *My basketball coach is making me jump a lot .*
        b. *The removalists are making the record jump a lot.*

(22)   a. *He folded his newspaper in his lap.*
        b. *He folded his arms in his lap.*

The (b) cases would not, however, be considered to involve any significant departure from the verbs basic senses or to trigger metaphorical interpretations, because it isn't clear that the meaning (in the sense of the metalinguistic paraphrase) of the verb in the (b) cases is any different from that in the (a) sentences.

Micro-level categorizations clearly do not create new meanings of a lexeme. If a new meaning had to be recognized for 'flower' every time the word was used to refer to a new example of a flower, the very distinction between meaning or 'sense' and reference would lose its force. On the other hand, macro-level categorizations do, at least pretheoretically, create new meanings for the lexical item in question—the metaphorical and other non-literal meanings which our folk-linguistic intuitions identify as different from the basic sense. But for intermediate categorizations it is much less clear whether a new sense is to be

thought of as created. Whether we think of the verb's meaning in the (a) examples as the same as or different from that in the (b) examples depends crucially on how we mentally gloss the (a) meaning in the first place, and for this level of categorization our folk intuitions usually fail us. Uncertainties like this are reflected by the differing classifications of senses found in dictionaries. Take for example the relationship between *crushed* in (23a) and (b). The Collins COBUILD dictionary (1987) treats these two uses of *crush* as separately numbered senses, the Concise Oxford (1999) treats (a) as a subsense of (b), and the Macquarie Dictionary (3ed) as the same sense.

(23)   a. *the paper is crushed*
       b. *his arm was badly crushed*

This relationship between referent typicality and degree of perceived meaning difference is represented in Figure 1.
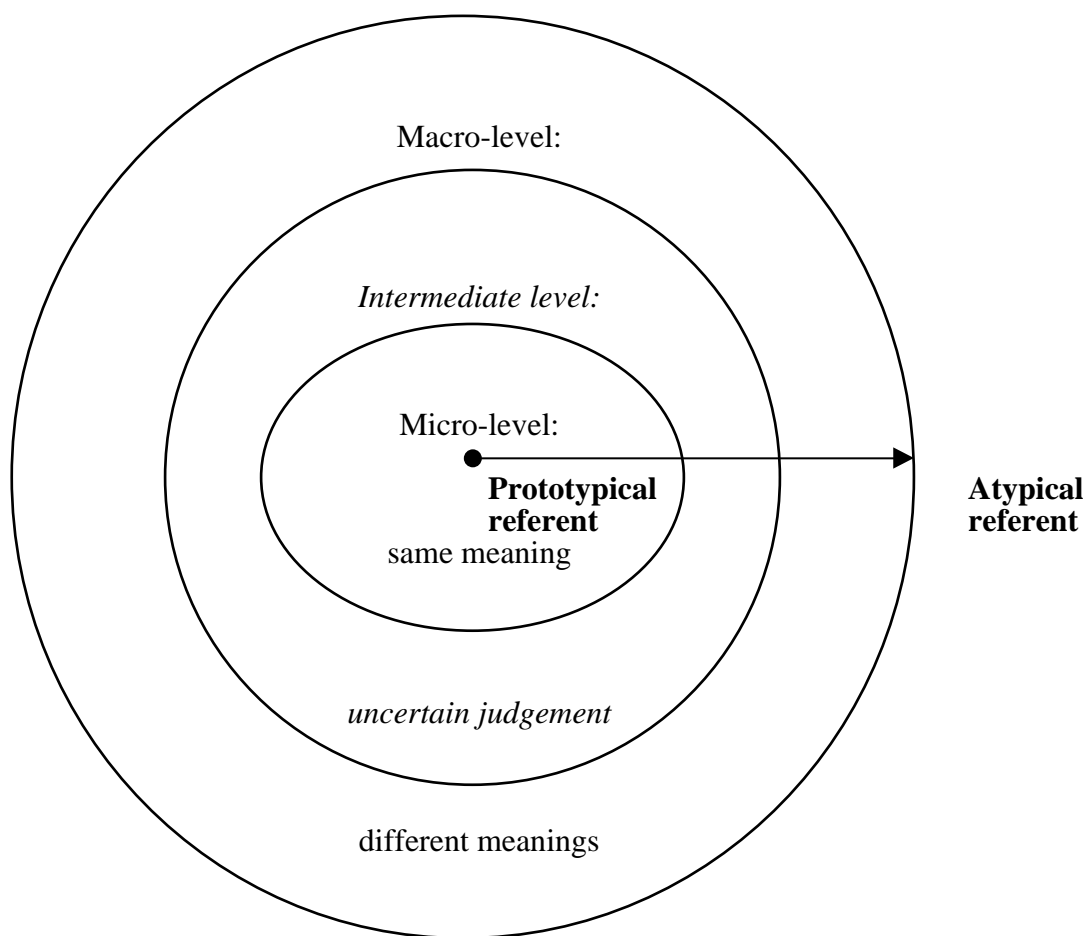

Figure 1. Referent typicality and degree of perceived meaning difference

Such examples could be proliferated indefinitely, and reveal that a good deal of caution should be used in applying the folk-category of 'separate sense' in English, let alone in any other language. A theory of semantics needs to account for the relationship between the prototypical meaning of a lexeme and all the other, less prototypical ones, regardless of the degree of separateness with which the other meanings are credited.

How then does this affect the applicability of metaphor and metonymy as explanatory categories for Warlpiri semantics?

As long as we assume the broad capacity of our metalanguage to identify features of referents that at least could be psychologically salient for speakers and hence available for linguistic representation, the types of metaphorical and metonymic links proposed between different glosses retain their explanatory value, even if the precise level of lexical categorization at which the analysis applies has to be left indeterminate.

To illustrate from actual-potential polysemies, if we see a verb's use to mean 'hit' and 'kill' as simply occurring on the micro-level as part of the ordinary categorization of referents under the core sense of the verb the metonymic connection between the two translations is an explanation of the principles of reference assignment: the prototypical use of the verb targets a set of referents whose cohesion is a metonymic one for the purposes of an English description. If we see 'hit' and 'kill as more separate, polysemous meanings on the intermediate or the macro-level (for these two meanings this latter possibility is surely unlikely) the metonymic link posited connects two glosses of a more autonomous status. The fact that we do not necessarily know which meanings to describe as 'separate senses' does not preclude us from drawing any conclusions about the conceptual structure of object language meanings[2]. As long as we assume that the English glosses 'hit' and 'kill' express a distinction that is available to Warlpiri speakers at some level, either as the name of an immediate feature of the actual events as perceived by them, or as a higher-level conceptualization of them, then the idea that metonymy provides the connection between the two glosses has a role to play.

We can now turn to some implications of this story for a conception of the nature of metaphor. In many accounts of semantics, metaphor is taken as the means *par excellence* of creating new meanings, whether diachronic or synchronic (Hock 1991, Sweetser 1990, Ullmann 1972). According to this theory, metaphor produces the meaning 'afflict' or 'infect' for *pakarni* in (13) and 'strengthen' for *katirni* in (14).

But I would argue that such definitions are misguided because they confuse the description of reference with sense. Spirits strengthening and diseases afflicting are alternative descriptions of the events referred to in (13) and (14), not descriptions of the senses of the verbs, which should be seen as retaining their ordinary core sense.

Pakarni in (13) invokes exactly the same scene of an entity or part of an entity hitting a surface as it does when referring to a typical, physical hitting event—one person hitting another, for example. Similarly, *katirni* in (14) has exactly the same meaning as it does in core uses: 'step on' or 'press on'. This identity of meaning between metaphorical and core application is what gives the verbs efficacy as metaphorical vehicles for their target concepts, since they allow the target to be talked about and categorized in exactly the same terms as used for the description of ordinary hitting and stepping/pressing events: in both cases, an obscure process (getting a cold, being strengthened by spirits) is described in the same language used for ordinary events that are open to visual scrutiny. The extent to which Warlpiri speakers regard the referents of *pakarni* and *katirni* in these metaphorical uses as prototypical or atypical, and the verb's meaning, correspondingly, as core or extended, probably varies from one individual to another. But this variation does not affect the description of the connection between the metalanguage glosses as metaphoric, because

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[2] I leave aside the standard logical and linguistic tests for polysemy/ambiguity not so much because their legitimacy as diagnostics of ambiguity/polysemy has been called into serious question (Geeraerts 1993, cf. Zwicky and Sadock 1972 and Tuggy 1993; see Dunbar 2001 for a rejoinder)—though this would be reason enough—but because they rely on speakers attributing metalinguistic predicates to sentences of the object language and making highly delicate judgements of sentences as 'true,' 'false,' 'awkward,' 'zeugmatic' etc. Even assuming that these English terms have cross-linguistically identical equivalents—a highly risky assumption—it is extremely difficult to obtain and verify them for a language other than one's own, let alone determine exactly what their implications are for the status of the sentences to which they are applied.

it can be taken to characterize the way the referents are linked regardless of the level of categorization on which this linkage occurs. Remaining agnostic about the precise level of the linkage is not, I suggest, a defect of the metaphorical analysis, but a way of remaining realistic about exactly what our metalanguage allows us to know about the language being described.

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