

Semantic analysis of body parts in emotion terminology

Avoiding the exoticisms of “obstinate monosemy”
and “online extension”*

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Investigation of the emotions entails reference to words and expressions conventionally used for the description of emotion experience. Important methodological issues arise for emotion researchers, and the issues are of similarly central concern in linguistic semantics more generally. I argue that superficial and/or inconsistent description of linguistic meaning can have seriously misleading results. This paper is firstly a critique of standards in emotion research for its tendency to underrate and ill-understand linguistic semantics. It is secondly a critique of standards in some approaches to linguistic semantics itself. Two major problems occur. The first is failure to distinguish between conceptually distinct meanings of single words, neglecting the well-established fact that a single phonological string can signify more than one conceptual category (i.e., that words can be polysemous). The second error involves failure to distinguish between two kinds of secondary uses of words: (1) those which are truly active “online” extensions, and (2) those which are conventionalised secondary meanings and not active (qua “extensions”) at all. These semantic considerations are crucial to conclusions one may draw about cognition and conceptualisation based on linguistic evidence.

A sample claim based on linguistic data is that an emotion vocabulary which makes excessive and systematic reference to the ‘heart’ (as in many Southeast Asian languages) reveals a “common areal conceptualization and compartmentalisation of the world” (Oey 1990:142). But while it is possible to learn about conceptualisation from linguistic evidence, it is not that the former can be simply “read off” from the latter. While words like *heart* and *liver* often

feature in descriptions of emotion in the world's languages, when these words denote a 'locus of emotional/intellectual activity', it may be that they do not refer literally to body parts at all. All we know is that given the homophony between the word for 'body part' (e.g., *heart*) and 'seat-of-emotion-activity' (e.g., *heart*), speakers *may* make an association of this kind (just as an English speaker *may* consciously associate *crane*₁ 'kind of bird' and *crane*₂ 'lifting machine', but would probably seldom do so). The relevance of a single word's reference to two distinct concepts as a simple-minded indicator of speakers' "conceptualisation of the world" is far from obvious.

This paper begins with some examples of reference to the 'heart' in conventional description of emotion in Lao. I then put this into the context of emotion research, and discuss some difficulties in describing the meanings of such expressions, in particular interpreting "extended" uses of body part terms. The next section considers the exoticisation which results from refusing to entertain the idea of polysemy. Then, assuming that a word may have two distinct meanings, I discuss different views of the putative relatedness between those two meanings. I compare two approaches — first, Lakoff's (1987) suggestion of "underlying cognitive principles" which speakers use in producing "semantic extensions", and second, Keysar and Bly's (1999) view that "conceptual connections" between word meanings are not what *create* polysemy (for the individual), but what *emerge* from it. I argue that the latter approach has greater promise in characterising the relationship between the "literal" and "extended" senses of body part terms used in descriptions of emotion. Finally, I consider the ways in which linguistic concepts might be acquired and established, and raise some possibilities as to what relatedness between word meanings can tell us about conceptualisation.

1. Reference to 'the heart' in Lao emotion description

A number of languages of Southeast Asia use the word for 'heart' (or another internal organ such as 'liver') in most expressions describing emotion (Matisoff 1986; Oey 1990). A typical example is the Lao word *caj*³, usually translated as 'heart', and sometimes as 'mind':

- (1) *kuu*³ *khùt*¹ *naj*² *caj*³ *vaa*¹ *to-qêng*³ *hak*¹ *laaw*²
 1SG think in heart COMP self love 3SG
 'I thought in my "heart" that I loved her.'

The term *caj*³ may also refer to the 'heart' as a bodily organ which pumps blood, but with that meaning it appears in a compound with *hua*³ 'head' (i.e., such that the physical heart is literally the 'head of one's "heart"'):

- (2) *sùù*⁴ *hua*³-*caj*³ *kaj*¹ *loo*² *nùng*¹ *nèè*¹
 buy head-heart chicken KG one PCL
 '(I'll) buy one kilo of chicken hearts, thanks.'

Thus, we see in Lao a formal distinction between *caj*³ as 'heart' (body organ) and 'heart' (centre of emotional activity), although when people speak of the *caj*³ as "emotional centre", they nevertheless locate it in the centre of their upper chest (i.e., around where the physical heart is).

With the 'heart/mind' meaning, *caj*³ appears in a vast number of compounds referring to personality traits and states of mind and/or emotion. In one common pattern, *caj*³ is followed by a modifier such as 'hot', 'black', or 'wide', the resultant expression usually (but not always) referring to an enduring character trait (cf. Kerr 1972:290ff):

- (3) *caj*³-*hòòn*⁴
 heart-hot
 'impatient, hot-headed'
- (4) *caj*³-*dam*³
 heart-black
 'ruthless, mean, black-hearted'
- (5) *caj*³-*dir*³
 heart-good
 'nice, good-hearted'
- (6) *caj*³-*kuang*⁴
 heart-wide
 'generous'
- (7) *caj*³-*jên*³
 heart-cool
 'patient, of cool temperament'
- (8) *caj*³-*kaa*⁴
 heart-daring
 'daring, courageous'

Of interest in this paper is a second pattern, in which *caj*³ 'heart' is *preceded* by a verb/adjective (i.e., not in a normal noun-modifier construction). These expressions refer to more transient states of "mind", typically emotions:¹

- (9) *tok²-caj³*
 fall-heart
 ‘surprised, startled’
- (10) *ñaa⁴-caj³*
 difficult-heart
 ‘tortured, in a bind’
- (11) *nòòj⁴-caj³*
 small-heart
 ‘offended’
- (12) *sia³-caj³*
 lost-heart
 ‘sad, disappointed’

Examples (9–12) raise important problems for the analysis of “reference to the body” in description of emotion. They represent our point of departure, namely that in research on emotions we must deal with linguistic descriptions, and we are thus obliged to take semantic issues seriously.

2. The importance of semantics in emotion research

In much emotion research,² the primary data are not actual emotion events but linguistic descriptions of them, or results of experimental tasks based on or involving linguistic descriptions. Most of the time when scholars talk about “emotions”, they are (without always recognising this) actually talking about *concepts of “emotions” as encoded in linguistic semantic structure*. This conflation of subjective and code-dependent descriptions with the real-world phenomena they describe is a ubiquitous, yet serious, methodological error (Jackendoff 1983: Ch. 2; Fraser 1996). If we acknowledge that linguistic evidence is primary in our search to understand the emotions, then we are immediately faced with the problem of translation across languages. Yet many emotion researchers (e.g., Fischer et al. 1999; Moore et al. 1999) assume that a word for an emotion in one language has a direct equivalent in another language (or that if there is no precise equivalent, a near-equivalent will do). The researcher is supposedly concerned with “emotions, not words” (Ekman 1994). However, some in linguistics and anthropology have argued that this is illegitimate (e.g., Harkins and Wierzbicka 1997; Wierzbicka 1999:24–31).

In psychological anthropology, White clarifies the issue of translation in emotion research, and the difficulties of ignoring it, as follows:

Conventions for representing emotions and emotion words in ethnographic writing belie unacknowledged problems of translation. At least three distinct usages of emotion words such as “anger” may be distinguished: (1) as analytical construct, (2) as a gloss of native terms, and (3) as an English language emotion word. In most ethnographic writing, the distinction between usages (1) and (3) is blurred, and the problems of equating (2) and (3) minimised (White 1992:23).

White’s remarks on “ethnographic writing” are directly applicable to psychological writing on the topic as well. Researchers like Fischer et al. (1999), for example, use terms like *honour* and *shame* as if the complex concepts denoted by these words were similarly denoted by words in (all?) other languages. H. Geertz (1974[1959]:263) criticised this kind of approach over four decades ago, arguing that “the use of shame and guilt as labels for whole cultures would be about as defensible as an attempt to classify all cultures or personalities according to primacy of [the Javanese categories] *wedi*, *isin*, or *sungkan*” (cf. also Goddard 1995).³ Some psychological anthropologists have argued that *all* psychology is folk psychology, i.e., that no approach is free from culture-specific guiding assumptions (e.g., Rosaldo 1980; Lutz 1988). In any case, it is not necessary to go as far as the “constructivist theories of emotion” advocated by White (1992) *inter alia* in order to make the point I wish to make here: “Pre-cultural emotions”, supposing they exist, are not “directly labelled” by emotion terms anyway (just as specific hues are not directly labelled by colour terms; Lucy 1996). It has been long established in the study of meaning that “[b]etween the symbol and the referent there is no relevant relation other than the indirect one, which consists in its being used by someone to stand for a referent” (Ogden and Richards 1923: 11). In other words, the symbol — i.e., a word, like *anger* — denotes a concept, which may be then understood to refer to something in the world (e.g., a real instance of ‘anger’). So as soon as we define our object of analysis as, say, *anger*, we are talking not about something measurable, in the real world, but about a concept which is only secondarily associated with real world events (including both events in the body, events in thinking, action, and people’s ways of talking about all these things). Therefore, we must attend to meanings in order to get to concepts.

We now consider possible interpretations of the references to the body in examples (9–12), above.

3. Just one meaning? Exoticisation by obstinate monosemists

For the Popolucas ‘loving with the heart’ is completely meaningless. They love with their ‘livers’. ... In the Totonac language one may love with the heart, but any disaster in emotions is the result of the condition of the spleen. So one says ‘spleen-broken’ instead of ‘heart-broken’ (Nida 1947:151).

[I]n their concept of the liver as the seat of all consciousness [the Chewong of Malaysia] have a means, albeit a limited one, for describing inner states (Howell 1981:142–3).

Can linguistic expressions be taken at face value? Do the Popolucas really “love with their livers”? The issue is reminiscent of a fascinating debate which arose early last century in the literature on totemism in “primitive” societies (Durkheim 1995[1912]; cf. recent discussion in Shore 1996). Durkheim suggested that the use of a single word — e.g., ‘crow’ — to refer to both an animal and a man of a certain phratry “is presumed to entail an identity in nature” (1995[1912]:134). He suggested that totem labels such as ‘crow’ were not figurative but *literal* — a man of a given totem “believes he is both a man in the usual sense of the word and an animal or plant of the totemic species” (Durkheim 1995[1912]:133). For Durkheim, this “identity” — e.g., of ‘crows’ and ‘men of the Crow phratry’ — lies in a common “principle”, which “constitutes what they all most fundamentally are, is shared between people and animals of the same name, and is conceptualised as having the outward form of the crow” (Durkheim 1995[1912]:191). Such a view treats the word ‘crow’ as monosemous (i.e., as having a single unitary meaning; Ruhl 1989), whereby the word glossed as ‘crow’ at once covers (a) the creatures we call (in English) *crows*, and (b) ‘men of the Crow phratry’.

A first problem is that if this were so, the word in question would not mean ‘crow’ at all, since the English word *crow* refers to a kind of bird, not to ‘a being with the essential characteristic of ‘crow’-ness’ (of which either a kind of black bird or a man of a certain totem would be representative examples in the system Durkheim describes). Shore (1996) notes that such views are nowadays less often found among anthropologists: “[T]he totemic relationship, once characterised by Durkheim as total identification between totemic species and human group” is no longer construed as literal, but now “emblematic”, “more like a comparison or analogy” (Shore 1996:179). The issue directly concerns the analysis of word meaning — while Durkheim implied a single unified concept under ‘*crow*’, the more modern position described by Shore recognises two

meanings (not necessarily unrelated) — (1) a bird of the kind ‘crow’, and (2) a person of the totem ‘crow’. I believe that standard tests for lexical polysemy would support this interpretation. I would expect that in the language concerned, the sentence *He’s a crow, but he’s not a crow* would be acceptable with the meaning ‘He’s a man of the crow phratry, but he’s not a kind of black bird’, and *There are two crows outside* would be unacceptable where reference is to one man of the crow phratry together with one black bird of the kind *crow*.

Such semantic arguments do not feature in the work of those modern obstinate monosemists, reluctant to acknowledge that words can have numerous distinct meanings. Scholars describing semantic systems of languages other than their own occasionally imply (sometimes strongly — cf. Howell 1981) that a single word has a single meaning, speakers thus failing to distinguish possible sub-senses (Goddard 1996: 149). For example, Jaisser’s claim that for Hmong speakers “the liver is the primary seat of the emotions” (Jaisser 1990: 160) misleads the English-speaking reader, since no analogous ‘seat of the emotions’ meaning for the English word *liver* is available to accommodate the relevant extension. Howell (1981: 139), quoted at the beginning of this section, claims that “whenever [the Chewong people of Malaysia] express verbally emotional and mental states and changes, this is done through the medium of the liver”. (Compare Wierzbicka 1999: 278 and Heelas 1996: 180 for very different views on this.) Again, the monolingual English-speaking reader of such claims only has access to the conventional ‘bodily-organ’ meaning for *liver*, and the claim thus sounds very exotic. (Indeed, Heelas 1996: 171 proudly declares of this perspective.) Jaisser and Howell seem to be implying that Hmong and Chewong speakers *literally believe* that their emotional and intellectual activity takes place within a dark red blood-producing organ located in the trunk. (Cf. also Weiss 1983: 72, cited in Heelas 1996: 171, for whom the use of ‘liver’ in emotion terms among the Javanese of Ponorogo is “not altogether just a metaphor”.) The basis for such a claim seems to be simply that speakers of these languages use a single word to refer in certain contexts to the physical liver, and in other contexts to the conceived “place” inside them where emotion events are imagined to unfold. But since we know that words can have more than one distinct meaning, then this possibility for words like ‘liver’ must be explored.

4. Multiple meanings — how are they related?

Assume that a word may have two meanings, and that these meanings may in some way be related. Let us consider possible interpretations of their relatedness.

Metonymy and Metaphor

Two major kinds of semantic and conceptual relatedness are *metonymy* and *metaphor*. Metonymy involves reference to something not by explicit mention of it, but by explicit mention of something *associated with* it. For example, we say *John's washing the dishes*, yet it is understood that he is washing not just dishes, but also bowls, cups, glasses, cutlery, and so on. Similarly, *John's new wheels* may be understood to refer not to 'wheels' but to a 'car' (of which the 'wheels' are merely a salient component). Metaphor, on the other hand, expresses likeness by *literally* expressing identity (e.g., *John is a whirlwind*), and this way of speaking is recognisable as "not meant to be taken literally", inviting the addressee to a mental challenge of making an intended conceptual connection (Goddard, in press).

Do 'heart' terms involve metaphor or metonymy?

The 'heart' expressions in examples (9–12), above, could be considered as involving *both* metaphor and metonymy. Consider example (9) *tok²-caj³* [fall-heart] 'surprised'. In a metaphorical sense, when you are surprised, it is *like* the 'heart is falling' (i.e., 'the heart falls' is a metaphor for one's diffuse proprioception of 'surprise'). On the other hand, by metonymy, this conceived physical 'falling of the heart' could be contextually associated with the accompanying cognitive activity/appraisal entailed by the emotion event (i.e., being 'surprised'). What is unclear in each case is the relevant sense of 'heart'. Now consider more abstract *caj³* expressions, involving modifiers which (unlike *tok²* 'fall') do not refer to physical events. For example, the closest Lao translation of *offended* is *nòj⁴-caj³*, literally 'small-heart' (or 'the heart is "smalled"'). In what way could this be metaphorical, i.e., be *like* the heart being (or becoming) small? 'Offence' does not involve the kind of saliently perceptible biological response that 'surprise' does. Further, there are a number of *caj³* expressions of this structure in which the modifier has no independent meaning at all (like 'cran-' has no independent meaning in *cranberry*). An example is *kêêng³-caj³*—'to have a feeling of hesitance and embarrassment, not wanting to do something that

would impose on another for fear of their thinking badly' — where *kêêng*³ has no independent meaning and does not appear on its own (and only rarely appears in any other compound expressions). In this case, no possible metaphor or metonymy, however outlandish, could be appealed to.

Two types of semantic 'extension' — 'online' versus 'imposed'

I have argued elsewhere (Enfield in press: 24ff; cf. Enfield 1997: 461) that the notion of "semantic extension" is applied somewhat indiscriminately in the linguistics literature, especially in cognitive linguistics and grammaticalisation theory, both of which are closely concerned with the variety of ways in which single words can function. The term "semantic extension" is used variously to refer to four distinct phenomena. Two of these — *ontogenetic* and *diachronic* extension — will not be discussed in this section. The remaining two types may be called *online* extension and *imposed* extension. To illustrate the difference, consider the following simple "somatic references" (not associated with emotion):

(13) *The typing pool is the heart of this organisation.*

(14) *John is the head of our department.*

Example (13) is an *online* extension, more like an "active metaphor" than (14).⁴ We are more likely to think that the speaker is making an explicit comparison with a physical 'heart' upon hearing (13) than with a 'head' (as a body part) in (14). This is revealed by the "metalinguistic tag test" suggested by Bogusławski (1994) and Goddard (in press), whereby hedges like *so to speak*, *as it were* or *figuratively speaking* work in certain cases, but not in others:

(13') *The typing pool is the heart, so to speak, of this organisation.*

(14') **John is the head, so to speak, of our department.*

In example (13), the speaker is using an overtly figurative expression, inviting the listener to imagine that the typing pool is like a 'heart' in some sense. In example (14), however 'boss' is already an established, conventionalised, and distinct meaning for the word *head* (which also happens to refer to a body part). The extension is not made by the speaker whenever the term *head* is used with this meaning, and it is not as if we are openly invited by the speaker of (14) to imagine that John is like a head in some sense. (And the matter of *diachronic extension* — i.e., the historical development of a 'boss' meaning for *head* out of a 'body part' meaning — is a separate issue; see below.) Rather, we are able to

“see” a relationship between them, and in doing so we *impose* such a relationship (Jackendoff 1983: Ch. 2; Keysar and Bly 1999). This is how speakers are able to consciously reflect on such relationships — one can imagine someone saying *Isn't it funny how we say John's the 'head' of the department as if the department were someone's body?*

Intermediate examples are more problematic — consider *tip of the iceberg*, *spill the beans*, *let the cat out of the bag* (Weinreich 1980: Ch. 6) — in these examples, speakers need not think of icebergs, beans or cats in using these expressions, yet they do seem more overtly ‘figurative’ than, say, (13), above.

Are ‘heart’ terms online or imposed?

Thus, we may ask: when a Lao speaker says she is “good-heart” (i.e., ‘happy’), in what sense is this a reference to the ‘heart’? Is it a reference to the body organ which pumps blood? Or is it a reference to something else (which may nevertheless in turn be conceptually related to the idea of that blood-pumping organ)? Is it an active semantic “extension” from literal reference to that organ? Or is it just an established way of speaking, where speakers need not expend any mental effort to connect the literal with the intended meaning? I am going to argue that the typical polysemous ‘heart’ (or ‘liver’, etc) term in emotion vocabulary involves *imposed* interpretative relationship, not an online generative relationship.

Let us now discuss an approach to polysemy which I argue is too prone to positing online extension as the relationship between two conventional meanings of a word.

5. Polysemy as “online extension”

The work of Lakoff and others in the cognitive linguistics tradition has been responsible for excesses in semantic research generally, and in some cases this has directly concerned emotion terminology (e.g., Lakoff 1987:380ff.). It has been assumed that polysemy emerges out of “general cognitive principles”, implying active extension by each individual speaker. An illustrative and often cited example relates to reference to the body in the conceptualisation not of emotion but of space. Lakoff (1987:316, and *passim*) argues that two meanings of Mixtec *çii* [transcription altered for convenience] — ‘belly’ and ‘under’ — are “systematically related by a general conventional system of projecting body-

part concepts onto objects" (1987:316), and that "[a]n *explanation* for such polysemy in Mixtec would be a conventional, general mapping *within the conceptual system* (as opposed to the grammar or lexicon) from body-part concepts to spatial locations" (1987:316; cf. Brugman 1983). But on what basis do we leap from the *observation* of a "systematic relationship" between meanings of polysemous items (whether the observation is by a linguist or a speaker) to the claim that this relationship is real both in "the language" and in the minds of speakers, and is the cause of the existence of the two meanings? What *may* be claimed is that due to identity of *form* between the two signs (e.g., *çii*₁ 'belly' and *çii*₂ 'under'), speakers who have learned these two meanings may expect a connection between the two, and then "see", or more accurately imagine, a motivating association. The mistake Lakoff makes (and many who make similar analyses) is to *assume* that a conceivable polysemy relationship is actively generative of the polysemy itself. It is assumed by these researchers that the perceived meaning relationships (e.g., between 'belly [of an animal]' and 'under [something]') directly reveal native speakers' conceptualisation as a principle underlying the "extension".

So, what does it mean for *crow* to be "literal" with reference to birds, but "symbolic" with reference to men? Or for *heart* to be "literal" with reference to the blood-pumping organ, but "symbolic" with reference to a 'seat-of-emotion'? Rumelhart (1979) argues that a distinction between "literal meaning" and "conveyed meaning" is not a distinction in the psychological process of comprehension, but more a matter of speakers' interpretation. He says that "the classification of an utterance as to whether it involves literal or metaphorical meanings is analogous to our judgement as to whether a bit of language is formal or informal. It is a judgement that can be reliably made, but not one which signals fundamentally different comprehension processes" (Rumelhart 1979:79). Thus, the distinction between *head* as 'boss' and as 'topmost body-part' is (at least partly) one of metalinguistic judgement. Up to this point I agree, and I will argue to this effect in the following section (with reference to Keysar and Bly 1999). However, I am less enthusiastic about Rumelhart's claim that "non-literal" meanings are nonetheless *derived* (suggesting *online*), arguing — with respect to the example of using the word *cool* to describe someone's emotional state — that "the learner of the language just learns the general model and can *productively* derive these and other cases of applying temperature words to emotional states" (Rumelhart 1979:89).⁵ (This is the essential idea of later work by Lakoff and others.) I think that Rumelhart is essentially correct, but only with respect to certain examples of online extension. However, these

schemas are derived from knowing the basic conventional metaphors in the first place, and these are the topic of our current inquiry. That is, the (sometimes productive) “conceptual schema” is derived *from the language* in the first place — it is not that the schema is responsible for the way the language is structured for any given speaker.

6. Semantic relatedness as imposed through interpretation

The “online polysemy” criticised in the last section has come under recent attack by Keysar and Bly (1999), who argue against Lakoff’s (1987) claim that meaning “extensions” are the product of independently existing generative conceptual schemas. These authors hypothesised that it is only *after* speakers learn the meanings of idioms that they interpretatively impose a motivating “conceptual connection” between the idiomatic and literal meanings. Keysar and Bly tested this hypothesis by means of a set of obscure but authentic idioms (such as *The goose hangs high*), which were unknown to a set of subjects. They taught these idioms to their subjects, telling some the real meaning, and some a false, opposite meaning. Having learned the idiom, subjects were then given stories that used the idiom in a context that left its meaning ambiguous (i.e., between the genuine and false meanings), and “were asked to predict the meaning that an overhearer would assign to the idiom” (Keysar and Bly 1999: 1570). Their hypothesis was that subjects who had been taught unfamiliar idioms would be “likely to predict that an uninformed other would believe that the idiom means what they themselves believe it to mean” (Keysar and Bly 1999: 1569). The outcome was “exactly the pattern of results one would expect if believing that an idiom means P makes P a more sensible and -P a less sensible meaning” (Keysar and Bly 1999: 1571). Keysar and Bly’s main finding — that “the discovery of underlying conceptual structures seems to depend on knowing the meaning of the idiom” — thus results in “a problem for theories that postulate motivating conceptual structures” (ibid.).

These general semantic issues apply directly to the emotion expressions in (9–12), above — the idiomatic meanings are not predictable from the literal meanings, although the impression may sometimes be otherwise. We can see motivation, but that does not allow us to predict what speakers will do. This is what Lyons described as “weak iconicity”, i.e., knowing both meanings, “we can see that there is some resemblance of form and meaning, but we could not deduce their meaning solely on the basis of their form” (Lyons 1977: 103). For

example, when it is explained that the combination of 'fall' and 'heart' in example (9) means 'surprised', this "makes sense" to the average non Lao speaker. One can somehow naturally think of the feeling of surprise as being like one's heart dropping. However, if asked to attribute a meaning to the combination 'fall heart' out of context and with no prior clue as to its real meaning, many would guess wrong. If overall meanings of such combinations were directly predictable from the semantics of components, then a given combination in any language should have the same meaning.

7. On creativity in semantic structure

I have argued that a putative conceptual relationship between two meanings of a single expression is often not what *creates* polysemy, but is something speakers use to *explain* why a word has the two (or more) meanings it *already has*. Keysar and Bly have argued that idioms "are transparent only because people already know the meaning and are able to construct a 'story' to make sense of them" (1999:1572). Such "story construction" is a deep-seated aspect of human intelligence (Byrne and Whiten 1988; Astington et al. 1988; Goody 1995). I have tried to suggest that this interpretative imposition by individuals of a "motivating" relationship between two historically given meanings is the most widespread conceptually creative aspect of polysemy. It is crucial to distinguish online extension with its pragmatic basis from post hoc imposed "extension".

The reader may be concerned that this view underestimates the role of speakers' creativity in actively bringing about new meanings of words (constructions, morphemes, etc.) in a language. Polysemy cannot be always just learnt, but must at some stage be actively created in the history of a language, and indeed such active creations are happening all the time. This, after all, is one of the most important contexts in which the idea of "semantic extension" is evoked (i.e., in research on semantic change and grammaticalisation). Of course I recognise this kind of creativity in language, but I want to argue that it does not apply to everyday uses of *conventional* polysemy (such as that of body part terms in emotion talk) — if you were making a particular extension of a particular word for the first time in history (i.e., as an 'online' extension), this would not be polysemy anyway. The point here is that today's polysemy is yesterday's pragmatic implicature (as is well established in research on semantic and grammatical change: Sweetser 1990; Hopper and Traugott 1993: Ch. 4; Evans and Wilkins 2000; Enfield, In press). The creativity of certain individuals

in former generations is what gives rise to today's conventionalised forms, which are indeed for today's speakers simply *learnt*. Thus, if we can learn anything of the "world view" of speakers from a given pattern of polysemy in the language they speak, it is more likely to concern the world view of their innovative *ancestors*.

Genuine creativity is found in truly innovative "exploratory expressions", but the fact is that most of these never "catch on" (Harris and Campbell 1995: 54ff.). Now, this apparently simple notion of a grammatical innovation "catching on" among a population of speakers is in fact a huge analytical "black box" (Hedström and Swedberg 1998), hiding a highly complex ground-level speaker-to-speaker process of aggregation of individuals' conventional speech behaviour, in massively complex social association (Schelling 1978; Keller 1994; Enfield, In press). Most people involved in this process of an innovation "catching on" are not creating the innovation at all, but *learning* it and reproducing it, passing it on to others (just as in the spread of jokes or clothing fashions). A new convention, such as a new meaning for an existing word, is for the vast majority simply learnt from one's social associates and not actively created at all.

I am not arguing that the cognitive principles of interpretation that Keysar and Bly (1999) describe are necessarily different *in kind* to the cognitive principles of online semantic extension. The tendency for speakers to make online extensions is always present, and it is fundamentally active in particular stages of language acquisition. Bowerman (e.g., 1982a: 132ff, 1982b) reports a range of non-conventional semantic extensions young children have been observed to make, which are beyond uses they have encountered. (Also, there is evidence of children insisting for a while on monosemous interpretations for words which are polysemous in adult language; Bowerman 1996: 416.) However, this creativity ends up getting stifled later in acquisition through pre-emption by more conventional ways of saying the same thing, or by a broader knowledge of the language allowing the child to make better generalisations. In other words, while children's non-standard innovative semantic extensions do "make sense", they do not represent anything like the regular situation of an adult using a polysemous word in a conventional way.

In sum, while I believe that conceived patterns of meaning relatedness *can* tell us about patterns of conceptualisation,⁶ the simple fact of conceivably related concepts being signified by the same signifier in a language is, for individual speakers, more a *product* of a language's given semantic structure than *what produces* that language's structure. As Bowerman says, speakers'

generalisations about linguistic structure are worked out “on the basis of experience with language itself” (Bowerman 1982a: 320). One of the aims of this paper is to warn against simple-mindedly assuming that an imaginable meaning extension between ‘sense 1’ and ‘sense 2’ of a word reveals a cause underlying the fact of any speaker using the word with just the two meanings it has.

8. Relations between word senses in ontogeny:

Different perceptual bases

In this section I want to discuss an ontogenetic aspect of the problem of reference to the body in description of emotion. This adds another dimension to our consideration of “semantic extension”. I am interested specifically in the role of the body as a unique feature of our environment.

The words and expressions of a given language denote concepts — or *meanings* — which are nowhere but in the mind. Since we cannot download perfect copies of them like files over the internet it is each individual’s task in acquiring a language to come up with their own theories of what those linguistic meanings are, based on their experience with the language (Bowerman 1982a). Successful language acquisition entails satisfactory convergence of one’s theories of linguistic meaning with those of other speakers.

We construct our theories of linguistic meaning on the basis of at least two kinds of evidence — experience with the language and experience with the world. First, one observes how others who one assumes to know the meaning of a word actually use that word, cumulatively inferring a constant value across a range of contexts. One’s own theory of meaning for an expression eventually converges with those of other speakers, and constant subsequent usage and exposure maintains that convergence (Enfield 2000).

Second, when a word describes something in the world, one may refer to one’s personal experience of things in the world which fit the relevant description. For example, in learning the meaning of the word *table*, we factor in not only the way people use this word, but also our personal physical interactions with things that are called *tables*, and we abstract important consistent features in deriving the relevant concept (e.g., being typically of a height to facilitate comfortable access for someone sitting on a chair). What kinds of analogous personal interactions do people have with internal organs such as the ‘heart’ or ‘liver’ which may provide for experientially-based formation of the relevant concepts?

One ongoing concern of anthropology has been the question of “how other peoples ‘name’ the ‘things’ in their environment” (Tyler 1969:6), and in an important yet seldom recognised sense, our bodies are things in our environment, as are the bodily aspects of emotional activity we continually experience. Yet they are at the same time “us”. Some scholars have paid special attention to this ambiguous role of the body. For Merleau-Ponty, for example, the “body-subject” is “neither a pure object nor a transparent subject” — “in certain contexts [it] is perceived as an object... [while] in other contexts it is the perceiving subject” (Passmore 1966:513). Emotions vividly exemplify the phenomenon of the body as simultaneously perceiver and perceived. A person constructs complex emotion concepts by melding (objectified) patterns of perceptual and cognitive appraisal with (objectified) associated proprioceptive sensations, and in doing so “neither merely makes nor merely encounters the world he lives in” (Passmore 1966:514).

While nobody will have had direct visual and/or tactile access to *their own* internal organs (and lived to tell the tale), everybody nonetheless has direct, vivid, and constant *proprioceptive* experience of their own internal organs, via the relatively diffuse sensations encountered from moment to moment, associated with a range of physiological processes (such as respiration, digestion, and, notably, visceral response to emotional arousal). It is remarkable that something so obviously central to our physical selves, and so constantly *present*, remains yet so canonically *hidden*. Unlike visible body parts such as the hands, we have no direct visual image to graft onto the relevant “propriocept”. The human internal organs are unlike almost every other physical aspect of our lives, in that our primary and overwhelmingly dominant mode of access to apprehending them is by private, and relatively diffuse, sensation.

It may be noted that the heart is a special case, since of all the internal organs, it is the only one whose activities are accessible from the outside — its beating can be heard, felt, and even seen. But while experiences like the pounding of the heart allow for visual and tactile access to a distinct localised event, this is far from actually *seeing* that one has a heart which is a physically separate entity inside one’s chest. In fact, my notion that I have a blood-pumping fist-sized organ inside the centre of my chest is *more abstract* than a concept of ‘a place inside me, where I feel some things when I think some things’, based on, for example, a tightening in the upper chest when I experience an emotion such as *anger*. I have no way of knowing whether or not this feeling is in my physical ‘heart’.

In sum, I am claiming that the ‘seat of the emotions’ concept is less abstract,

closer to daily experience, than the notion of my own physical heart as a discrete functional organ. Ontogenetically, one's proprioceptive experience of the viscera long precedes any visual or linguistically based notions of various discrete organs of various shapes and sizes, and with various physiological functions. It is thus problematic to assume that for individual speakers a "locus of emotion experience" concept is *derived from* a "body part" concept. Rather, we can only say that there is an imaginable conceptual connection between these, which may get *imposed* upon a conceived relationship between a single signifier for two distinct ideas — say, 'dark red blood-producing organ' and 'locus of emotion-related proprioception'.

9. Conclusion

Linguistic evidence is central to emotion research, and it is the most fruitful place to look for clues to understanding cultural and conceptual dimensions of emotion. But linguistic semantics is a difficult and specialised pursuit, and things are seldom as they seem to the folk semanticist. The fact that Hmong speakers use the same word — *siab* — to refer to both the physical liver and the "seat of the emotions" may be no coincidence diachronically, but this does not mean that all Hmong speakers at all times make a conceptual connection between the physical liver and the less physical "seat" of emotional activity, nor, *mutatis mutandis* for the Lao *caj*³ 'heart'. Such a conceptual association *may* be made, but if it is only rarely made, this weakens any claim that evidence of this kind demonstrates anything about the "world view" of speakers. It is doubtful that mere identity of the 'bodily organ' word and the 'seat of emotions' word can tell us about modern speakers' conceptualisation of the involvement of their bodies in emotional events. An approach much more likely to be revealing is to attempt explicit definition of the 'seat of emotions' term, based on linguistic evidence from a broad range of contexts. This procedure is exemplified by Hasada (this volume) and Wierzbicka (1992: Chapter 1).⁷

How we think about the body, the mind, and the link between these in semantic and conceptual terms may be reflected in how different linguistic conventions provide speakers of different languages with different ways to talk about these things. But this is not revealed by pointing out the exotic "fact" that the Popolucas "love with their livers". The task, then — the great difficulty of which is apparently highly underrated — is to describe the linguistic evidence adequately.

Notes

* This paper has benefited considerably from generous and detailed comments by Melissa Bowerman and Helen Fraser. I also received useful comments from Anna Wierzbicka and Bill Foley. I am extremely grateful for these contributions, none of which are to be blamed for current shortcomings.

1. There are exceptions to the pattern just described. For example, the following, with *caj*³ first in the two-element expression, describes an emotion, not a personality trait:

*caj*³-*haaj*⁴
heart-offensive
'angry'

Further, a number of basic emotion expressions in Lao do not contain the morpheme *caj*³ 'heart' at all (e.g., *khi.diat*⁵ 'disgusted', *sook*⁵.*saw*⁵ 'sad, depressed, miserable').

2. "Emotion research" covers an enormous and varied literature. Here, I am addressing recent traditions in both cognitive psychology and psychological anthropology. See, for example Heelas and Locke (1981), Scherer and Ekman (1984), Schweder and LeVine (1984), Ortony et al (1988), the journal *Cognition and Emotion*, among very many others.

3. Even worse is to combine the fallacious assumption that emotion terms are unproblematically translatable across languages with a vacuous view of what qualifies as "semantic" in the first place, as Moore et al. (1999) have recently done. They claim that the English words *happy* and *glad* "may be so similar as to be indistinguishable with our measuring instrument" (1999: 541). This should be taken as ample cause to discard the instrument and go straight back to the drawing board. These authors claim that their work is about semantics, yet their methodology expressly avoids specification (whether of sense or reference or whatever) of the meaning of any of the emotion terms they refer to. Their method is to measure "distance" between terms, but this "distance" is a property of the authors' diagrammatic abstractions, not of anything literally in anyone's head (although inexplicably they insist otherwise; Moore et al. 1999: 541). These authors flaunt the "systematicity" of their method, and contrast this with dismissive references to "anecdotal" methodologies whose validity they claim is undetermined (Moore et al. 1999: 540ff). (They are of course right to criticise the unquestioning acceptance of claims about emotion terminology in languages—the worst of this is exemplified by Heelas 1996.) Yet their own methods, while aesthetically suggestive of "science", do not at all measure what Moore et al. claim they measure. Rather than dealing with *semantics*, their putative measurement of word meanings is by distances on abstract diagrammatic depictions of speaker responses. It is not clear that these distances are direct and/or calculable functions of those word meanings anyway. In contrast to the standard structuralist assumption, I submit that regardless of any system properties of contrast or the like which words in a single field may enter into, it remains vacuous to define a word purely in terms of what it does *not* mean, or in terms of how it is judged to be related to *something else*, without first understanding it for what *it* is. Rather than producing an abstract representation of distance and examining *it*, we should go straight to what it is that generates this representation of distance in the first place, namely

the semantic specifications of the emotion terms. (See Wierzbicka 1999 for genuine attempts.) Only then may such secondary observations (e.g., of similarity to other words) make sense, or even be coherently formulated.

4. Would obstinate monosemists consider (13) and (14) to include literal references to the body? By Howell's (1981) logic (in the quotation at the beginning of §3, above) we could say that English speakers have a "limited means" for describing positions of authority, and rely on "their concept of the head as the highest authority" to express themselves. In this section we are considering the more reasonable option that these "references to the body" can have more than one meaning.

5. One interesting question is: If individual speakers do not each make this derivation, but first simply learn the two meanings, then what is the status of native speakers' intuitions about the "basicness" of given meanings? For example, in Lao the most common use of the word *luj*² is with the meaning 'engage headlong in some activity (commonly eating or fighting) without restraint'. Another meaning is 'wade into/through water'. Despite this second meaning being less common, it is regarded by speakers as the "real" or "basic" meaning. (i.e., speakers supply this meaning when asked "What is the real, basic meaning of the word *luj*²?") This does not mean, however, that the other "non-basic" meaning has literally been *derived*. As Rumelhart (1979) argues, the identification of one meaning as "basic" or "literal" is not a property of the production or comprehension of that meaning, but of the *status* of that meaning in speakers' metalinguistic awareness (i.e., as a kind of "speech level").

6. The complexities of polysemy and conceptualisation are too far-reaching to be explored in any detail here. See, for example, the recent debate in the pages of the journal *Cognitive Linguistics* (Croft 1998, Sandra 1998, Tuggy 1999), and references therein.

7. While these authors use a specific formalism in their definitions, this is not essential to the procedure by which they establish meanings on the basis of linguistic evidence.

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