

# USING BODY PART TERMS TO BEGIN A DICTIONARY<sup>1</sup>

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## 0. INTRODUCTION

In this article I suggest that lexicographers should choose body parts as a natural and beginning semantic domain.<sup>2</sup> There are a number of reasons why such an approach is helpful: First of all, body part terms readily provide examples of a part-whole lexical hierarchy (a meronymy according to Cruse 1986). Secondly, body part terms are highly metaphorical and illustrate metonymy and other figurative extensions (Nida 1975; Lakoff and Turner 1989). Because of this other semantic domains are associated with body parts, for example, parts of animals and plants, as well as parts of automobiles (Blasso 1967). Thirdly, the terms for emotions spring from body parts, as do many other expressions concerning emotions (Lakoff 1987). Finally, body parts are commonly categorized in ways that are reflected grammatically. When examining sets of body parts notions of possession, instrumentality, and location are frequently encountered. Additionally, although body parts are most easily elicited as nouns, they readily derive verbs, adjectives and compounds. In addition, verbal actions arise naturally from body parts, for example *hand* > to *handle*, *leg* > to *kick*, or *tongue* > to *taste*. Further verbal extensions are readily built upon a schema involving additional body parts: to go < by *foot*, to carry < on the *shoulder*, to sleep < with the *head* < on the *pillow*. I return to this later.

Many of the reasons I have given supporting the use of body terms for early dictionary compilation apply to other domains as well. However, the discussion which follows will illustrate how a dictionary compiler can most profitably begin with body part terms to describe associated semantic relation. In so doing the compiler will also discover how anatomical lexemes are of significant importance in the culture.

## 1. FOLK ANATOMY

Ethnolinguistic procedures for replicable elicitation are well established (e.g. Franklin 1972; Spradley 1980). I now briefly review a number of elicitation and analytical ones:

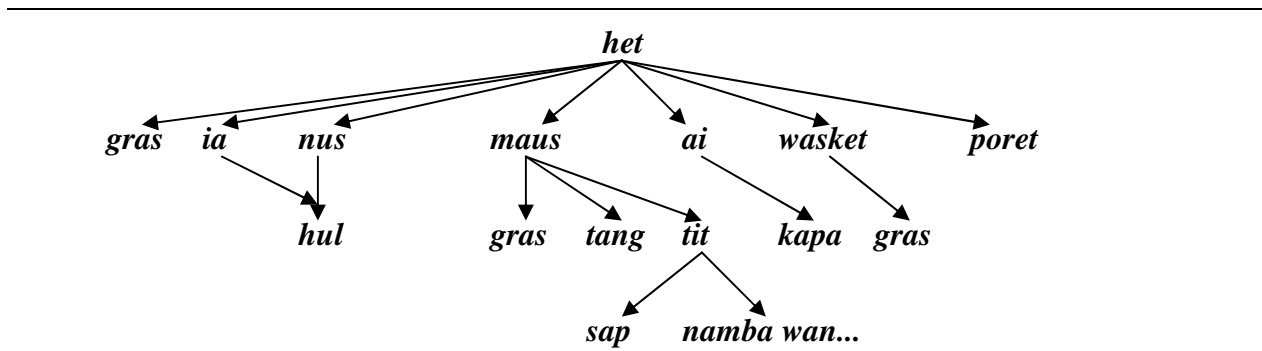
- 1) First of all, simply list all of the body parts that language speakers name. For example, if English speakers were asked "What are the names of the parts of the *body*?", they would give words like *head*, *eye*, *mouth*, *ear*, *leg*, and so on. They would not commonly give *deltoid muscle* (or even *muscle*), *lymph glands*, or *artery*, even though most English speakers would recognize the words. Further anatomical individual parts would be even less common.
- 2) Next arrange the body parts in a two dimensional matrix to test which ones can be used in figures of speech (McElhanon and Sâcnemac 1975). The most generic and well known body parts, like *liver* or *heart*, will be found in idioms, but there is unlikely to be an idiom involving one's *thoracic nerve*.
- 3) Deal with lexemes, i.e. compounds, idioms, figures of speech and so on, and not simply mono-morphemic examples. In the initial stages the compiler is not worried about the eventual separation of the lexemes into semantic components or their domains (Nida 1975). The English lexeme the *mouth of the river* will eventually be a part of the domain of *bodies of water*, but initially word and conceptual associations are given full play.
- 4) Construct some sort of taxonomy for the body parts (Franklin 1963) which will reflect culturally significant conceptual relationships.

External body parts are easy to visualize and it is possible to restrict the native speaker's comments on them. There are a number of parts that one could begin with, but I suggest, somewhat arbitrarily, the *head*.

## 2. START WITH THE HEAD

I now illustrate a lexicographic procedure with the word *het* in Tok Pisin (TP), because the lexeme exemplifies a part-whole relationship, but is not yet as extensive in its semantic scope as its counterpart in English.<sup>3</sup> However, for illustrative purposes, I later compare the lexeme's definition with its English cognate *head*.

In TP *het* is a part of the *bodi*. If a person asks for body parts in TP words like *ai*, *ia* (*yau* in classical TP), *nus*, *maus*, *pes*, *sol*, *bel*, *han*, *lek*, (eye, ear, nose, mouth, face, shoulder, hand, leg) and so on are commonly heard (cf. Mühlhäusler 1979:224). A working taxonomy would look something like this (where ... represents an unlisted string of forms):



**Figure 1: Folk Taxonomy of *HET* in TP**

By noting particular syntactic frames it is possible to further determine a number of meanings which involve the lexeme *het*: (cf. Mihalic 1971; Ramsey 1985):

- (1) **HET BILONG [X]**: {*diwai, kanu, maunten, wara*} (treetop, prow of canoe (also its *maus* or *poret*), peak of mountain, source of river)
- (2) **[X] BILONG HET**: {*gras, bun, paspas*} (hair, bone, armlet)
- (3) **[X]HET**: {*bik, gutpela, go*} (conceited, thoughtful, progress)
- (4) **HET i [X]**: {*pen, bruk, pas*} (pain, concussion, slow learner)
- (5) **HET[X]**: {*tok, pen, kela, kota, man, meri, win*} (main point, headache, bald, headquarters, male leader, female leader, headwind)
- (6) **BIKHET-im; bruk-im HET; daun-im HET**; and in soccer, **HET-im bol**. (talk back, split open someone's head, pray, head the ball)

As we might expect, the nominal *het* may be derived as a compound (*bikhet, hetman*), as a verb (*hetim bol*), as part of a stylized expression (*daunim het*), as an idiom (*het bilong pik*), as a figurative extension (*het bilong diwai*), or as the topic in a complement phrase (*het i pen*).

### 3. EXTENSIONAL PROPERTIES OF BODY PARTS

There are additional arguments why body parts are a particularly productive area for lexicographic study. Consider the following points:

1) **Ontological.** We perceive our own existence and explain the world around us accordingly, so that we *see, hear, feel*, etc. using body parts. As Mark Johnson's title *The Body in the Mind* (1987) suggests, meaning, imagination, and reason are closely tied to our personal experience and have a bodily basis.

2) **Experiential.** Pain and emotions radiate from within us or from actual impairment to the body, hence the *heart, liver, brain*, etc. are used to describe these feelings.

3) **Metaphorical.** Literally we have *hands*, but when we speak of a *hand* of bananas or *hand*-over something we go a step further and lexicalize the expression by means of a body-part.

4) **Spatial.** Our face is in *front* of us so when we face someone we describe this in reference to our position. These are also given spatial metaphors, such as *face*-off, *backslide*, and so on.

5) **Symbolic.** Although this is a type of metaphor, it is actualized by means of a physical process: we shake *hands* on something, nod our *head* that it is OK, wave with our *hand* to acknowledge or dismiss, and so on.

6) **Poetic.** The human body is a base point of departure and a source of meaning, serving as an icon, model or reference point for imaging and providing spatial categories (Friedrich 1979:499).

7) **Extensional.** Each body part is connected to another and, as previously mentioned, parts of the set are copied to other domains as well.

In regard to this last point consider, for example, the dictionary definition of face in English, and what it entails when referring only to human body parts:

**FACE:** the part of the *head* from the *forehead* to the *chin*.<sup>4</sup>

To understand this definition a reader must to some degree not only understand head, forehead, and chin, but those parts which lie between. For example, note the following definitions, which follow for the head, forehead, and chin.

**HEAD:** the upper part of the *body* in humans, joined to the *trunk* by the *neck*, containing the *brain*, *eye*, *ears*, *nose*, and *mouth*.

Note that, in the Random House Dictionary, trunk is also referred to as torso and has its first sense as “the main stem of a tree”. The body part sense follows an additional sense of “...box ...for holding [something]”, as well as one which refers to the rear part of an automobile.

**FOREHEAD:** the part of the *face* above the *eyebrows*.

Note how the definition of forehead states that it is part of the face and the face is a part of the head from the forehead to the chin. This circular type of definition is common and commented upon in detail by Wierzbicka (1985; 1987).

**CHIN:** the lower extremity of the *face*, below the *mouth*.

**MOUTH:** the opening through which an animal or human takes in food.

Note that in this last case the definition gives no reference to the parts of the mouth, although there are 16 parts listed in an accompanying illustration. The lexeme mouth additionally includes some 25 senses.

**CHEEKS:** either side of the *face* below the *eye* and above the *jaw*.

Now follows the most comprehensive and overwhelming definition for a body part, only the first of 53 senses, with an accompanying illustration with 18 parts:

**EYE:** the *organ* of sight, in vertebrates, typically one of a *pair* of *spherical bodies* contained in an *orbit* of the *skull* and in humans appearing externally as a dense, white, curved *membrane* or *sclera*, surrounding a circular, colored *portion*, or *iris*, that is covered by a clear, curved *membrane*, or *cornea*, and in the center of which is an *opening*, or *pupil*, through which light passes to the *retina*.

Each of the items in boldface type is either an actual part of the eye, or it could be construed as such a part by someone who is learning English, e.g. *organ*, *spherical bodies*, *orbit*, *membrane*, *portion*, and *opening* are not parts of the eye but could be understood that way because of the definition.

Without a good knowledge of spatial and descriptive orientations (*pair, contained in, externally, dense, white, curved, surrounding, circular, colored, clear, curved, and center*, etc.) it would be difficult to understand the definitions. Further how do the technical and medical lexemes, like *sclera, iris, cornea, and retina* complement those used by the layperson in a folk taxonomy. There is an attempt to help the reader do this by pairing the lexemes, e.g. opening OR pupil, colored portion OR iris, and so on.

Even this much detail does not describe other lexemes that are semantically related to face: what about *whiskers* ?, and what is the difference between them and a *beard* (“the growth of hair on the face of an adult man, often including a mustache”) or a *mustache* (“hair growing on the upper lip”)? What about the domain of face hair which includes a kind of mustache called a *handlebar* or beards called *Vandykes* or *goatees*? What are *side-burns* and *mutton-chops*, etc.?

#### 4. A BODY PART SCHEMA

A schema for body parts is a general set of extensional relationships and implications that can be derived from various contexts. In the case of body part terms, we can begin with the literal human primary parts and then extend to secondary, but still literal, parts of flora and fauna. In figure 2 the primary or main entry is the English lexeme *hand*. The three semantic categories given in square brackets at the top of the figure follow Nida’s (1964) four semantic categories although I have not included what he calls ABSTRACTS. In the OBJECT category a fuller explication would include the set of all those instruments associated with *hand*, exemplified here with *spoon, ring, glove, and gun*. Either hand itself or the OBJECTS which correlate with it may further portray EVENTS, such as *touch* and *feel* or *eat* and *feed* (with or without a *spoon*). The RELATIONS generally involve a syntactic frame which includes a preposition. The prototype or schema in Figure 2 is elementary and compares only to parallel extremities of flora and fauna.

A beginning schema for the prototypical extremities of humans, certain animals and trees would incorporate the following:

[OBJECT]	[EVENT]	[RELATION]
<i>hand</i>	touch, feel	hand off, over
	lift, spread	lift up, set out
	pull, push	pull up, down, over
	give, open	give out, open up

<i>finger</i>	( <i>spoon</i> )	shake, wave	shake up, wave over
[DECORATE]	( <i>ring</i> )	eat, feed	measure out
[COVER]	( <i>glove</i> )		put on, take off
	( <i>gun</i> )	shoot	put on, take off
<i>leg</i>		stand, move	shoot up, gun down
[COVER]	( <i>sock, shoe</i> )	walk, run	stand up, move on
<i>paw</i>		dig, scratch	walk over, up
<i>branch</i>		wave, blow	dig in, scratch up

**Figure 2: Augmentation of Extremities**

By extending meaning structure from a prototype it is possible to elaborate a schema (Langacker 1987, Taylor 1987:65). Taylor, who follows Langacker in this regard, explains that a prototype is a typical instance of a category with other elements allowed membership on the basis of degree of similarity. In the case of a schema there is an abstract categorization that is compatible with all the member of the category which it defines. It embodies the commonalty of its members. Taylor considers categorization by prototype and schema as aspects of the same phenomena.

[HUMANS]	[TREES]	[ANIMALS]	[ABSTRACT]
<i>arm</i>	<i>branch</i>	<i>leg</i>	appendage
<i>hand</i>	<i>leaves</i>	<i>paw</i>	2, 4, many
<i>fingers</i>	<i>twigs</i>	<i>claws</i>	end cluster
( <i>nails</i> )	( <i>buds</i> )	( <i>*claws</i> )	end point
<i>skin</i>	<i>bark</i>	<i>fur</i>	covering
<i>blood</i>	<i>sap</i>	<i>blood</i>	life source
<i>wave</i>	<i>sway</i>	<i>dig</i>	move appendage

**Figure 3: Comparisons in the Extensions**

Other body parts come into play for animals: *tail*, for example may parallel *leg* and *arm*, but it has no further parts. *Leg*, *arm* and *tail* do enter into various contrasting idioms: He *legged* it home, but not \*He *tailed/ armed* it home. His voice *tailed* off, but not \*His voice *legged/ armed*

off. He *armed* himself, but not \*He *legged/ tailed* himself. This applies to other lexemes throughout, e.g. He *clawed* his way up the hill, but not \*He *nailed* his way up the hill; He *pawed* the ground, but not \*He *handed* the ground. He is a *budding* (\**nailing*; ?*clawing*) linguist.

Although both *hands* (or *fingers*) and *branches* will *wave*, one by means of a human instrument and the other by the wind, a *leg* does not wave. Further, although *hand* is an extension of *arm*, once it applies to flora it becomes specific (a *hand of bananas*) and to many fauna it does not apply at all because a different lexical item is introduced (such as *paw*). Certain analogies terminate: there are *toenails* and *fingernails* but only a *paw* has *claws* (although we can *claw* at something with our *nails*). The verbal extensions converge in some areas: as mentioned, *hands*, *fingers*, *branches*, and *twigs* can all *wave*, but only the floral counterparts can *sway* (although one's body can sway). People can *dig* without *fingers* or a dog can *dig* with its *claws*, but a tree or branch does not dig with anything.

This is only a sample of how a body part can serve to generate further lexical entries; other compounds, verbs, prepositional phrases, idioms, and metaphors arise out of a simple body-part entry. They in turn prompt new extensions and collocations, all extending from the body.

## 5. SOME CONCLUSIONS

I now summarize a number of practical suggestions about dictionary compilation which relate not only to body parts, but to procedures in general. Many are self-evident, and successful lexicographers have always been aware of them.

- 1) There are numerous categories of information to include in a dictionary, including phonological, orthographic, morphophonemic, grammatical, syntactical, sociolinguistic and cultural.
- 2) The compiler must therefore be very familiar with the language and the culture. Observation and participation are necessary to test the meanings of lexical items.
- 3) The dictionary is a tool for the compiler, the translator, the language learner, and to some extent, the native speaker of the language. Each of these audiences must be kept in mind.
- 4) Various meanings can be tested out vis à vis semantic relationships, including taxonomies and domain analysis.

- 5) National assistants who are native-tongue speakers can be trained to write folk definitions. These definitions provide valuable basic information on lexical fields and semantic relationships. (Casagrande and Hale 1967)
- 6) It follows that fieldworkers need to understand and use various eliciting and ethnosemantic techniques.
- 7) Definitions should be attempted by using the language alone. This will entail establishing a metalanguage for further definition purposes (as done by Wierzbicka, *passim*).
- 8) In such cases brevity and conciseness are not the foremost considerations for a first definition. Rather establishing sets of semantic components which distinguish related sets of words is of primary importance.
- 9) Defining is tedious and requires cultural testing. However, if the lexicographer intends to include key terms or idioms (as in Galland and Hinds-Howell 1986) a standard semantic presentation is helpful.
- 10) Idioms, metaphors, and poetic materials are part of the data for a dictionary.
- 11) Dictionary information is extensive and should be coded. It follows that a reliable and consistent reference system should be used.

## NOTES

<sup>1</sup>An extensive study on lexicography, of which this paper is a small part, was presented at several seminars at Ukarumpa for the Summer Institute of Linguistics. Another version was presented at the Linguistic Society of Papua New Guinea meetings in Madang in September, 1992. I am grateful to a number of colleagues for comments on those sessions, including, in particular, David Snyder, Cindi Farr, and Janet Ezard, as well as to Andy Pawley and participants at a Dictionary Workshop at the Australian National University that I was invited to attend. Snyder has since (1991) worked on the problem of a defining language for TP dictionaries. My main interest has been pedagogical and descriptive techniques in compiling vernacular dictionaries. For practical applications on the same subject, see Bartholomew and Schoenhals (1983) and Newell (1986). There are numerous collections of articles dealing with lexicography

and dictionaries, such as Hartmann, ed. (1983) and Ilson, ed. (1985, 1986, 1987). Wierzbicka (1985, 1987) provides a semantic theory which allows a defining vocabulary which utilizes a controlled metalexicon and therefore establishes a lexicographic methodology that can be used with a number of speakers to determine agreed-upon meanings.

<sup>2</sup>This suggestion is not new, although I have not seen it used as an initial pedagogical device in the field work courses taught at SIL or elsewhere.

<sup>3</sup>On the history and nature of TP, as well as an outline grammar and phonology, see Wurm and Mühlhäusler (1979) and Mihalic (1971).

<sup>4</sup>All the definitions in this section are from the *Random House Dictionary of the English Language*, second edition, unabridged, 1987.

## REFERENCES

Bartholomew, Doris A. and Lois C. Schoenhals. 1983. *Bilingual dictionaries for indigenous languages*. Mexico, D.F: Summer Institute of Linguistics.

Blasso, Keith. 1967. Semantic aspects of linguistic acculturation. *American Anthropologist* 69.471-77.

Casagrande, Joseph B. and Kenneth L. Hale. 1967. Semantic relationships in Papago folk-definitions. In: D.H. Hymes and W.E. Bittle, eds. *Studies in Southwestern ethnolinguistics: meaning and history of the languages of the American Southwest*. The Hague: Mouton.

Cruse, D. A. 1987. *Lexical semantics*. Cambridge: Cambridge University Press.

Franklin, Karl J. 1963. Kewa ethnolinguistic concepts of body parts. *Southwestern Journal of Anthropology* 19.54-63.

Franklin, Karl J. 1971. Some comments on eliciting cultural data. *Anthropological Linguistics* 13.339-48.

- Friedrich, Paul. 1979. *Language, context and imagination*. Stanford: Stanford University Press.
- Galland, Daphne M. and David Hinds-Howell. 1986. *The Penguin dictionary of English idioms*. Middlesex: Penguin Books.
- Hartmann, R.R.K., ed. 1983. *Lexicography: principles and practice*. London: Academic Press.
- Ilsou, Robert, ed. 1985. *Dictionaries, lexicography and language learning*. NY: Pergamon Press.
- Ilsou, Robert, ed. 1986. *Lexicography: an emerging international profession*. Manchester: Manchester University Press.
- Ilsou, Robert, ed. 1987. *A spectrum of lexicography: papers from AILA Brussels 1984*. Amsterdam: John Benjamins.
- Johnson, Mark. 1987. *The body in the mind: The bodily basis of meaning, imagination, and reason*. Chicago: U. of Chicago Press.
- Lakoff, George. 1987. *Women, fire, and dangerous things: What categories reveal about the mind*. Chicago: The University of Chicago Press.
- Lakoff, George and Mark Turner. 1989. *More than cool reason: a field guide to poetic metaphor*. Chicago: The University of Chicago Press.
- Langacker, R. W. 1987. *Foundations of cognitive grammar: Vol. 1, Theoretical prerequisites*. Stanford: Stanford U. Press.
- McElhanon, Kenneth A. and Sâcnemac Barok. 1975. Transfer between Selepet and Melanesian Pidgin idioms. In K.A. McElhanon, ed. *TP i go we? Kivung, Special Publication 1*, pp 189-197.
- Mihalic, F. 1971. *The Jacaranda dictionary and grammar of Melanesian pidgin*. Milton, QLD: the Jacaranda Press.
- Mühlhäusler, Peter. 1979. *Growth and structure of the lexicon of New Guinea Pidgin. Pacific Linguistics* C-52.
- Newell, Leonard E. 1986. *Lexicography Notes*. Manila: Summer Institute of Linguistics.

- Nida, Eugene A. 1964. *Toward a science of translating*. Leiden: E.J. Brill.
- Nida, Eugene A. 1975. *Componential analysis and the study of meaning*. Mouton: The Hague.
- Ramsey, Evelyn M. 1985. *Kondodans: Bilong painim tok insait long Buk Baibel*. Wewak, Papua New Guinea: Christian Books Melanesia Inc.
- Snyder, David Michael. 1991. *Toward a defining vocabulary for Tok Pisin*. Unpublished M.A. thesis, University of Papua New Guinea.
- Spradley, J. 1980. *Participant observation*. NY: Holt, Rinehart and Winston.
- Taylor, John R. 1989. *Linguistic categorization: prototypes in linguistic theory*. Oxford: Clarendon Press.
- Wierzbicka, A. 1985. *Lexicography and conceptual analysis*. Ann Arbor: Karoma.
- Wierzbicka, A. 1987. *English speech act verbs: a semantic dictionary*. London: Academic Press.
- Wurm, S.A. and P. Mühlhäusler, eds. 1979. *Handbook of Tok Pisin (New Guinea Pidgin)* *Pacific Linguistics* C-70.