An Example Of Cognitive-Semantic Processes In Language Change

Published by

Garza Cuarón, Beatriz and Paulette Levy Podolsky.
Homenaje a Jorge A. Suárez: lingüística indígena e hispánica.
El Colegio de México, 1990.
Project MUSE. muse.jhu.edu/book/74553.

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A study of the "shape of language" shows that a large proportion of vocabulary is made up of combinations of shape morphemes, such as round (circle, globe); meander (roll, turn, return); spiral (twist—a circle expanded into space); and branch (angle, fork, hook). In this paper I will treat one concept, the shape of a meander, and its ramifications, for example in the word "wave", to illustrate just one part of a much larger semantic framework. The meander, a to and fro shape and motion, is illustrated in nature as the flowing river, the movement of a snake, the crawling of a worm, the scallop, and drops of water meandering down a smooth surface. Human beings have applied these concepts (by metaphor) and have used the pristine notion of meander for such activities as 'braid/plait, weave, throw, fling, wallow, wring'. I will illustrate these cognitive-semantic derivations with Indo-European (IE) languages, where there appears to be a network of related meanings.

The IE material is drawn from Carl Darling Buck's *A Dictionary of Selected Synonyms*, which is a magnificent collection compiled in a topical format, with discussions based on historical studies. One limitation is that Buck did not have the Anatolian material. Addition study would incorporate the Hittite examples which take the reconstructions further back. For the reader's easy reference I am including the numbering system which Buck used. In addition I have used Watkins' "Indo-European roots", and I have supplemented with other etymological studies such as Benveniste, Kluge, Persson, Pokorny, Skeat, and Walde and Hofman.

The basic feature of the meander comes from 'round', which is one of the most common-occurring shapes in nature and also in lan-
guage. Della Volpe\(^1\) shows that the ‘round’ shape is predominant in early IE culture in religious practices and in the formation of cities. The meander shape is made up of a curve (from ‘round’) with a gradual change of direction:

![Meander Shape](https://example.com/meander.png)

The meander is seen in a similar formation in the scallop. Related to the basic shape of the meander are notions such as: turn, roll, wave, swelling, flow, undulating, move, bulge, trough. Buck gives the proto IE form \(*wel-\), with meanings of ‘turn, roll’ under the lexical item 1.35 “wave”, in the first chapter on “The Physical World” (p. 40). This entry includes synonyms in thirty-one IE languages, with several different cognate sets that are cross-referenced to other entries. He begins the discussion with the proto IE form \(*wel-\) which predominates in the derivatives. The phonological reflexes are straightforward: labials derive from *w and liquids derive from *l. The semantic reflexes are also easily understandable if one keeps in mind the primitive notions of shape and motion, in this case, a meandering, twisting, or alternating movement. This is obvious in the word for ‘wave’, and the notions inherent are illustrated in related vocabulary, as set forth in Buck’s discussion.

The meander comprises notions of movement as well as shape, and these cognate sets are included in Buck’s Chapter 10, “Motion, Locomotion, Transportation, Navigation”. Some of the entries are particularly relevant: 10.2 ‘turn’; 10.13 ‘turn around’; 10.14 ‘wind, wrap’; 10.15 ‘roll’. He notes a considerable interchange between ‘turn around, twist’ and ‘wind [wrap]’ and ‘roll’ (p. 665). He then gives several IE forms which are phonologically similar: \(*wert-\), \(*werg-\), \(*wergh-\), \(*wreik-\), \(*wreit-\), and he says, are all probably “parallel extensions of a simpler \(*wer-\) seen in words for ‘worm’” (p. 665).\(^2\) Buck then refers again to \(*wel-\), with meanings of ‘roll, wind, wrap’ and to still another form \(*wei-\), with meanings of ‘wind, bend, plait’ (p. 665). The three-

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2 See also Persson, 1912.
consonant forms have also been analyzed as having a "root extension" or a "suffix" added to a two-consonant root, so that the forms would be understood to be *wer-t-,*wer-g-, and so on. Benveniste is known to have worked on this plausible idea, trying to identify the meaning of the third consonant. If it was suffixation at one time, it is no longer a process used in the descendant languages. That Benveniste was not completely successful, at least to the satisfaction of all scholars, can be explained in a number of ways, but I will not digress here.

The matter of homonym and homophone must be dealt with in identifying cognates. English has a great many words which are alike in sound, and perhaps spelling, such as 'well' and 'well'; 'wave' and 'wave'. This, of course, complicates tracing the history back to an original meaning, and one must be aware of the hazards in making identifications. Watkins has tried to sort these out, and in his alphabetical listing of "Indo-European roots" he has five entries for a form *wel- and eleven entries for a form *wer-. Further, he has ten subdivisions under *wer- 3, with extensions of this form having related meanings of 'turn, bend': *wert-; *wreit-; *wergh-; *werg-; *wreik-; *wrizd-; *wreip-; *werb-; *werbh-; *werp-; *wermi-. From these basic morphemes, which I am relating to the concept of meander (shape and motion), there is an overwhelming number of descendants or derivatives. I will list a sampling of these from Buck and Watkins in the Appendix following.

Let us return to the concept of 'wave' to show how pristine cognitive processes might have functioned, in remote times, in labeling things in the environment, and subsequently, artifacts which were produced. By the time our prehistorical IE language was spoken, these primitive concepts still were being used for labeling and classifying. In the entry for "wave" 1.35; Buck's discussion of *wel- includes the Baltic and Slavic forms: Lithuanian vilnis; Latvian vilnis; Church Slavic vlâna, valû; Serbo-Croatian val; Czech vlna; and Russian volna. These words for 'wave' are very similar or identical with the words for 'wool' in the Balto-Slavic languages. Buck gives 'wool' 6.22: Lithuanian vilnos; Latvian vilna; Church Slavic vlâna; Serbo-Croatian vuna; Czech vlna;

3 I express my appreciation to colleagues for this information and for other important comments on the IE material. The following contribute substantially to my thinking by responding to an early draft. An author should presume to be completely responsible for the final product; and readers should not impute responsibility on the author's colleagues! But disclaimers seem to be the order of the day in footnotes nowadays. This is no exception. These colleagues were generous in their authoritative suggestions: Henrik Birnbaum, Dwight Bolinger, Angela Della Volpe, Marija Gimbutas, Henry M. Hoenigswald, Edgar C. Polome, Jaan Puhvel, Calvert Watkins, W. C. Watt.
Polish *welna*. Buck gives the IE form for ‘wool’ as *wlna-*, or *wlna̞-*, which he says, comes from *wel-*, in words for ‘hair wool; grass’. I propose that the distinctive feature of meaning that relates these cognate sets has to do with the meander, or the scalloped shape that can describe a ‘wave’ or the curly, curved shape of curly hair, or wool on the back of a sheep, or the undulating grass on a field. This notion also might be extended to the description of a ‘cloud’ 1.73. In this set, the Germanic forms are: Old English *wolcen* (Modern English *welkin* ‘sky’); Dutch *wolk*; Old High German *wolkan*; Middle High German *wolken*; New High German *wolke*. It is not uncommon for English-speakers to use the combination ‘fleecy cloud’. The word ‘fleece’, of course, is semantically close to ‘wool’ and the relationship to ‘cloud’ has to do with its shape.

The word ‘wave’ may also derive from the notion of ‘swelling’, a shape morpheme with another dimension. Greek ‘wave’ *kuma* is related to ‘pregnant’. The concept of ‘swell’ is also seen in the Celtic languages: Irish and Breton *tonn*; Welsh *ton*; in Low German *dünen*; and in Latin *tumère*, from IE *teu-* ‘swell’. Related to this are notions of ‘billow, bulge, belly, bellows, bag’, with examples from Germanic languages: Old Norse *bylgja*; Danish *bølge*; Middle Low German *bulge*; Old English *belgan* ‘get angry’; Old English *belg* ‘bag, belly, bellows’.

The notion of movement is inherent in ‘wave’, with related vocabulary of ‘surge, tempest, carry, move’, as in Old English *wegan* ‘carry, move’; New High German *bewegen* ‘move’; and Latin *vehere* ‘carry’. The concepts of ‘high, deep’ are the provenience for some languages for ‘wave’, as in Old Norse *alda* ‘ware’; Old English *aldaht* ‘trough’; and Latin *altus* ‘high, deep’. ‘Wave’ may also be expressed by the perception of its sound, according to Buck, who related it to Old Norse *gjalfr* ‘noise of the sea’, and by extension from *ghel-*, in Old English *giellan* ‘cry out’. The action of the wave may also label it, as in Lithuanian and Latvian *banga*; and Sanskrit *bhānga*– ‘breaking’. Finally, ‘wave’ may be derived from the primitive morpheme for ‘water’ or a derivative notion, such as ‘flow, flood, stream, sea’.

These examples from a limited area of primitive concepts revolving around *meander* and a derivative, the ‘wave’, show a wide range of resultant vocabulary. By examining the interrelationships within the semantic framework which I am proposing, one can give account for

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4 Buck, 1949, p. 40.
5 Buck, 1949, p. 40.
6 Key, 1986.
this otherwise disparate range of vocabulary. I hypothesize, for the cognate sets presented here, that the distinctive features or common denominators that weave the thread of relationships through these various vocables have to do with the meander, that is, the shape and movement of this scalloped, undulating configuration. The simplest explanation is based on how the configurations and motions are perceived by the primitive eye and ear. This brings together such far-flung derivatives as: turn, roll, wreath, walk, envelope, wool, wave, mollusk, torture, wrist, gaberdine, verbena, seaweed. (See Appendix for other vocabulary.)

I believe also that these primitive notions of shape and motion are closely identified with corporeal (anatomical) morphemes, and human actions, which, after all, human beings were primarily aware of in pristine thinking. Thus, some lexical items that have to do with body parts and actions are exemplified in Buck and in Watkins: wrinkle, wrist, belly, vulva, wallow, walk, bend, wrestle, turn, fling by turning the arm, and others. Also of interest are psychological notions that grow out of basic morphemes. Examples from Buck and Watkins are: worry, torture, be ashamed, hesitate, quarrel, unsteady, and others.

Other things to consider in evaluating semantic and cognitive networks are the matters of perception and symbolism. The importance of perception in the development of language has been studied by psychologists. Clark, for example, shows that perception is a source for semantic features. The development of perception in a child has a hierarchy: movement, shape, size, sound, taste, and texture.

In order to understand semantic groupings, we must also consider the problem of phonesthesia. We do not know to what extent sound symbolism takes part in the formation of words. With the advent of computers we can begin to understand the correlation between types of sounds and meanings. The first such study that I know of is by Zelinsky-Wibbelt, who did a statistical study of particular sounds and their features of meaning and found that the correlation is significant.

Primitive morphemes may become frozen in time, remaining as classifiers that may be difficult to analyze. We have to accept the fact that much of history has been lost. This is particularly relevant to working with languages that have no written history. This is not to say that we should not try to explain the phenomena which are available to us. The relationships that I have discussed here are illustrated in Indo-European

8 Also see Della Volpe, 1982, p. 108.
9 Zelinsky-Wibbelt, 1983.
languages where we have a multitude of historical documents. The ideas, however, came out of my working with American Indian languages, which have no written history, or at least very recent history. These are simple explanations of cognitive processes, which all human beings have in common. There are other things that we can discover, however, by using this cognitive-semantic framework. We have seen the examples in IE languages, where the meaning relationships are tied together sometimes by families. It is possible that one can test distant relationships of possible classifications with these semantic networks of correspondences, even as we use the phonological correspondences and their place in phonological systems to show family relationships. Finding a network of semantic relationships would be more convincing evidence than mere similarities.

Appendix

* Related vocabulary from IE roots *wel-, *wer-, *wei-

Compiled from Buck 1949: 665, and Watkins 1971: 1 548-1 549. In order of occurrence. (Some of these are translations from IE languages.)

*wel- roll, wind, wrap, fold, bend, wallow, feel, felt, twist, wind, turn, waltz, welter, mollusk, whelk, willow, walk, gallon, well [spring], roam gaberidine, bag, wale, weal, welt, wale, a round stem, voluble, volume, envolve, revolve, vulva, valve, sheath, cover, elytron, valley, vail, vale, wicker basket, helix, helminth, woolly, curly.

*wert- turn around, become, wind, toward, worth, value, stalwart, befall, fate, weird, wurst [sausage], turn, versatile, verse, vertebra, vertigo, controversy, divert, bend.

*werb- throw, bend, incline, turn, warp, twist, wrench, wind, wrinkle, tend toward, verge, converge.

*sweigh- squeeze, draw fast, bind, twist, turn, strangle, worry, wring, curved, crooked, wrong, wrestle, wrangle.

*wer- crooked, bent, move, wend, turn, bend, go, wry, wriggle, wrist, instep, gaiter, heather, briar, brusque.

*weit- writhe, turn, wound around, wreath, twist, torture, wrath, wroth.

*werjd- turn, bend, twist, wrestle, wrest.

*werip- turn, rub, be in heat, copulate, ribald.

*welb- turn, bend, fling by turning the arm, throw away, warp, whips, reverberate, verbena, rod, rhombus.
*werp-*

- turn, wind, wrap, sew [wind around], raphe, rhapsody.

*wermi-

- worm, grommet, vermin.

*wei-

- wind, bend, plait, turn, twist, wire, thread, garland, seaweed, seaware, bracelet, ferrule, iris [rainbow], wiry, withy [supple twig], head band, vine, vise, sinew.

References

Benveniste, Emile

Buck, Carl Darling

Clark, Eve

Della Volpe, Angela

1986 *URBS and Hillfort nomenclature in Indo-European*, University of California, Los Angeles; Unpublished Dissertation.

Gimbutas, Marija

Hofmann, Johann Baptist

Johnston, Norman J.

Key, Mary Ritchie


1985b "An approach to semantics through comparative linguistics". In Ursula Pieper and Gerhard Stickel (eds.), *Studia linguistica*


Kluge, Friedrich

Persson, P.

Pokorny, Julius

Polomé, Edgar C.

Skeat, Walter W.


Walde, A., and J. B. Hofman

Watkins, Calvert

Wood, Francis A.
1905-1906 "How words are related?" Indogermanische Forschungen 18: 1-49.

Zelinsky-Wibbelt, Cornelia