Semantic Shift in the English Language

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The history of the English language is an extremely complex subject encompassing a variety of subfields, and has been regularly taught for more than a century as an academic subject at the university level (Momma & Matto, 2008, p.5). Phonological changes such as those described by Grimm's Law, Verner's Law, and the Great Vowel Shift are well documented, and nontechnical descriptions of the latter are common (Gramley, 2012, p.133-134; Crystal, 2003, p.55), although the true causes and effects of the Great Vowel Shift constitute "one of several areas of mystery in medieval linguistics now in hot debate" (Bragg, 2011, p.96). However, in contrast to phonological change and the dominant role it plays in the field of historical linguistics, the phenomenon of *semantic shift* or *semantic change* has not enjoyed the same degree of attention, and is likely the least understood aspect of the field. The fact that semantics has long been the weak point in synchronic linguistics may perhaps explain why the same is true for diachronic (i.e. historical) linguistics (Crowley, 1992, p.151).

Although semantics has admittedly lagged behind phonology in this way, one need not leap to the conclusion that no progress has been made toward understanding the process of semantic shift. As Durkin (2009, pp.29-30) points out, "It is one of the linguistic facts of life that words change both in form and in meaning. Predicting exactly what those changes will be and when they will occur is normally impossible, although describing and explaining changes which have occurred in the past is a much more achievable goal." Although the causes and motivations of change may not yet be fully understood, to say nothing of why certain changes occur in some cases and not in others, it has been possible to document and categorize the *types* of semantic shift that do occur. While scholars may differ in the terms they use for these categories, as well as the way they organize and group them, it is clear that the categories themselves can clearly be observed cross-linguistically, and are therefore vital to a deeper understanding

of semantic shift in the history of the English language. As Crystal (2003, p.138) observes, anyone having studied older English literature, such as Shakespeare, "will need no reminding of how much of the vocabulary has been affected by such changes."

Seven main "classes of sense-change" were proposed by Stern (1931), with the argument that earlier systems of classification advocated by Wundt and others were unsatisfactory, based as they were on "inadequate analysis of the nature of meaning" and "insufficient linguistic material" (p.165). Stern's proposed seven categories of semantic change (pp.166-168) are as follows:

> (1) *substitution*
> (2) *analogy*
> (3) *shortening*
> (4) *nomination*
> (5) *(regular) transfer*
> (6) *permutation*
> (7) *adequation*

The first of these, *substitution*, differs entirely from the other six types in that the cause of the change is non-linguistic (i.e. cultural, technological, etc.), with the language merely reflecting that change. For example, the word *car* now refers primarily to automobiles rather than to non-motorized, wheeled methods of conveyance, in spite of the fact that the word *car* predates the invention of the automobile by many centuries. In this case, technological change has resulted in the substitution of a new referent (i.e. automobile) for an existing word, due to the similarity and continuity between the new referent and the old. Stern additionally argues for three subcategories of substitutions (pp.194-198):

> (1) factual change of referent
> (2) change in knowledge of referent
> (3) change of attitude toward referent

The second of Stern's categories, *analogy*, involves relationships between words. For example, the adverb *fast* gradually developed from its earlier meaning of 'firmly' to include the later meaning of 'quickly', and then by analogy, this latter meaning was extended to the corresponding adjective, which, unlike the adverb, had not developed this meaning independently. As with the first category (*substitution*), Stern proposes three subtypes for this category as well (p.207):

    (1) combinative analogy

    (2) correlative analogy

    (3) phonetic associative interference

The example above with *fast* falls within Stern's explanation of combinative analogy. Correlative analogy, on the other hand, involves a semantic correlation between two words or expressions. By way of example, Stern hypothesizes (p.219) that *black letter day* obtained the meaning 'inauspicious day' through analogy with *red letter day* ('auspicious day'). This process can also occur cross-linguistically, with a word or expression being influenced analogically by a counterpart in a different language.

Unlike the first two subcategories of analogy, the third involves phonetic resemblance, usually accompanied by some degree of semantic similarity. Stern further differentiates between two types of phonetic interference: (1) change of meaning, but not of referent, and (2) change of both meaning and referent (pp.234-235). In both cases, phonetic similarities "interfere" with or intrude upon the semantic domain to create a shift in meaning. As an example of the first type, he cites the word *brothel*, which originally referred to a person ('scoundrel' or 'prostitute'), whereas *brothel-house* referred to a 'house of ill repute'. By analogy with the phonetically similar *bordel* (which had the same meaning as its related compound *bordel-house*), the meaning of *brothel* was extended to refer to the house rather than the person. Stern claims that in a case such as this there is a "modification of the manner in which the referent is apprehended, but the referent itself remains in fact the same." It is difficult, however, to see how this is true, as there would appear to be a very definite change in the referent (i.e. from the person to the house), even though they are semantically related.

For the second type (change of both meaning and referent), Stern cites as an example the word *belfry*, which originally referred to a 'tower used in attacking fortresses' and had no connection whatsoever with bells. However, because of the phonetic similarity between the first syllable of *belfry* and the word *bell*, the meaning of the former shifted and the word *belfry* has acquired a completely different referent (i.e. bell tower). Based on these examples, the only difference between the two types of phonetic interference would seem to be how closely the old and new meanings are connected.

The third category proposed by Stern is *shortening*, which entails the loss of part of a word or expression, resulting in an abbreviated form. He further subdivides this category (pp.258-259) into two types: (1) *clipping* and (2) *omission*. The first refers to the shortening of a single word (e.g. *omnibus > bus*), whereas the second involves the loss of one or more words in an expression (e.g. *private soldier > private*). The second type is clear enough; the existing word *private* effectively takes on an additional meaning. Stern points out, however, that clipping only results in semantic change if the shortened form of the word existed previously. This is not true in the case of the word *bus*, as there has been no semantic change in the word, which did not exist before the shortening of *omnibus*. On the contrary, a new form has simply been created, with the same meaning as its parent word. *Shortening* can be somewhat problematic as a category of semantic change, since a shortened form (such as 'prop' from 'property') can be viewed as a homonym of a previously existing word (like the verb 'prop'), and therefore a separate word, rather than regarded as the same preexisting word that has undergone a semantic shift (i.e. acquired a new meaning).

The fourth category, *nomination*, is defined by Stern as the "intentional naming of a referent … with a name that has not previously been used for it," and includes three subcategories (pp.291-297) thusly labeled:

(1) intentional naming
(2) intentional transfer (non-figurative)
(3) figures of speech

The first of these refers simply to the coining of new words, and therefore, like many examples of clipping (as discussed above), does not truly represent semantic change. The second subcategory should not be confused with the fifth of Stern's primary categories, *regular transfer*, which includes only *un*intentional transfers. As an example of intentional transfer, he cites the use of the word *wall* in referring to the *walls* of a cell (presumably a biological cell, not a prison cell). The third subcategory also involves intentional transfers, but Stern adds another condition: figures of speech "involve emotional (incl. aesthetic) factors" (p.296). Encompassed in this third subcategory are: *metaphor* (which in turn includes *hyperbole* and *litotes*), *irony*, and *euphemism*.

Stern draws a distinction between his first four categories, described above, and the last three, which involve "changes that occur unintentionally in the course of ordinary discourse" (p.340). As mentioned above, Stern's fifth category, *(regular) transfer*, consists of unintentional transfers, such as the use of the word *bed* to refer to the 'last base or surface on which anything rests' (p.168). Transfer with nouns can occur because of one of three factors (pp.347-348):

(1) similar appearance

(2) similar function

(3) position within a larger whole

Transfer with adjectives can be subdivided similarly, but the third type of transfer differs entirely from that of nouns (pp.348-349):

(1) similar appearance, form, or structure

(2) similar function, ability, or behavior

(3) relational shifts

As examples of relational shifts, Stern lists expressions like *highest bidder*, where *highest* refers not to the actual bidder but to the action of bidding (p.349). It is questionable, however, whether this latter example truly constitutes semantic shift, since the meaning of the word *highest* has not changed. The meaning of the adjective

is identical in both of these expressions: *highest bid* and *highest bidder*. The fact that *highest* refers to the action of the bidder (rather than presumably to his/her physical characteristics or other attributes that could be described as "high") does not constitute a shift or change in meaning. On the contrary, this interpretation of what the adjective *highest* means in relationship to the noun *bidder* is merely the most unmarked possibility, considering the meaning of *bidder*.

Other potential interpretations, such as "the bidder who had consumed the greatest quantity of mind-altering substances" or "the bidder seated in a hot air balloon hovering over the auction site," while admittedly within the realm of possibility, are extremely unlikely, unless intended by the speaker or writer for comic effect. By the same reasoning, one would be unlikely to encounter phrases such as *highest painter* (as opposed to *highest jumper*) or *highest worker* used by itself (as opposed to a longer phrase where *highest* refers to a later word, like *highest worker compensation*), since there is nothing immediately apparent for the adjective *highest* to refer to in either case.

In contrast to transfers, which involve two referents with one or more similarities, the sixth category, *permutation*, revolves around one referent possessing multiple characteristics, accompanied by a shift in subjective perception of the referent. In Stern's example, the word *bead* (or *bede* in Middle English) originally referred to a 'prayer' (cognate with the German verb *beten* 'to pray'), but due to the use of rosary beads for counting prayers, *bead* came to refer to both 'prayer' and 'prayer bead' and then finally only to the bead itself, independent of any prayer-related meaning (p.168). Arlotto (1972, pp.171-172) cites the same example and uses Saussurean diagrams to illustrate the shift, which takes place in three distinct phases. The glosses for the word *bead* at different points in the history of the word would be as follows:

(1) 'prayer'
(2) 'prayer', 'prayer bead'
(3) '(prayer) bead'

Of course, there was also a final extension of meaning from '(prayer) bead' to any

type of 'bead'. Stern's more detailed explanation of the rationale behind the semantic shift is particularly illustrative of the process through which such shifts occur, so his explanation is presented below in its entirety, with only slight modifications for the sake of greater clarity.

> In the Middle Ages, prayers were mainly Pater Noster and Ave Maria, which had to be said repeatedly, and which were counted by means of the balls of a rosary. If it was said of a man that he was counting (saying) his *bedes*, the phrase signified, at first, that he was counting (saying) his prayers. But a speaker looking on and using the phrase, would in reality see the man counting the actual balls of his rosary, and that action would therefore be an element of the speaker's perceptual context. An association would thus be set up between the word *bede* and its original meaning, on the one hand, and the idea of 'rosary balls' (or 'prayer beads') on the other hand. Whether the phrase was interpreted in one way or the other, it was an adequate description of the phrase referent (the action of the man), which could be apprehended in either way. (p.168)

In this case, the one referent possessing multiple characteristics, around which the semantic shift revolves, is the action of the man, and the shift in subjective perception of that referent results in a corresponding semantic shift in the meaning of the word *bede*, later spelled *bead* in Modern English.

Like *permutations*, Stern's seventh category, *adequation*, also revolves around one referent with multiple characteristics, accompanied by a shift in subjective perception. As an example, Stern cites the word *horn*, which originally referred only to an 'animal's horn'. Animal's horns were sometimes played as musical instruments, and the shift in subjective perception which occurred entailed a shift in focus from material ('animal horn') to function or purpose ('musical instrument'), with the latter becoming the dominant meaning of the word when referring to an animal horn used for that purpose. In other words, "the meaning of the word was adequated (adjusted) to the real characteristics of the referent." Once this adequation is complete, the word

horn can then make the transition (through the process of substitution) to referring to musical instruments that are *not* actually made from animal horn (p.168). In spite of this explanation, however, it is unclear exactly what the criterion is for distinguishing *adequation* from *permutation*.

Bloomfield (1933, pp.426-427) presents nine classes of semantic change (established by earlier scholars), which differ markedly from those of Stern, based as they are on a different type of analysis:

    (1) *narrowing*

    (2) *widening*

    (3) *hyperbole*

    (4) *litotes*

    (5) *degeneration*

    (6) *elevation*

    (7) *metaphor*

    (8) *metonymy*

    (9) *synecdoche*

Six of the classes cited by Bloomfield involve complimentary pairs of shifts along a particular spectrum from one pole toward the other: *narrowing* and *widening* involve shifts along the spectrum of narrower to broader meaning and vice versa, *hyperbole* and *litotes* entail shifts to either stronger or weaker meaning, and *degeneration* and *elevation* involve shifts toward either a more negative or more positive connotation. Examples from Bloomfield can be represented graphically as follows:

BROAD...NARROW

narrowing:

  Old English *mete* 'food'　　>　　*meat* 'edible flesh'

widening:

  dog　　<　　Middle English *dogge* 'dog of a particular breed'

STRONG..WEAK

hyperbole:

   pre-French *ex-tonare* 'to strike with thunder'　　>　　French *étonner* 'to astonish'

litotes:

   Old English *cwellan* 'to kill'　　<　　pre-English *['kwalljan] 'to torment'

POSITIVE...NEGATIVE

degeneration:

        Old English *cnafa* 'boy, servant'　　>　　*knave*

elevation:

   knight　　<　　Old English *cniht* 'boy, servant'

It should be noted that this diagram is not intended to create the impression that a word necessarily begins or ends its transition in meaning at one extreme of a given spectrum. As can be seen, in the cases of *knave* and *knight*, both words begin in a neutral position in the middle of the positive-negative spectrum. The remaining three classes mentioned by Bloomfield can be illustrated thus:

metaphor:

   Primitive Germanic *['bitraz] 'biting'　　>　　*bitter* 'harsh of taste'

metonymy (meanings are near each other in space or time):

   Old French *joue* 'cheek'　　>　　*jaw*

synecdoche (meanings are related as whole and part):

   pre-English *['stoboː] 'heated room'　　>　　*stove*

   Primitive Germanic *['tuːnaz] 'fence'　　>　　*town*

Both Arlotto (1972, p.176) and Crowley (1992, pp.151-153) limit their respective discussions to only four major types of semantic change. The first two in either case

are the same as Bloomfield's first two. The term *narrowing* is mentioned by all three writers, and Arlotto and Crowley use the terms *extension* and *broadening* respectively, which correspond to Bloomfield's *widening*. The other two types of change cited by Arlotto, however, do not coincide with those of Crowley. Arlotto lists *figurative use* and *subreption*, whereas Crowley includes the more general categories of *bifurcation* (or *semantic split*) and *semantic shift*. Bloomfield's *metaphor*, *metonymy*, and *synecdoche* are all subsumed under Arlotto's category of *figurative use*, and Arlotto's category of *subreption* corresponds to Stern's *substitution*. (Stern, in fact, also makes reference to the term *subreption* in his discussion of *substitution*.) Crowley's categories of *bifurcation* and *semantic shift* are quite straightforward: the former occurs when a word acquires a new meaning in addition to its original meaning, and the latter occurs when a word acquires a new meaning at the expense of its original meaning.

Crowley goes on to mention four "forces" (pp.153-154), which he regards as influencing the direction of semantic change:

(1) *metaphor*
(2) *euphemism*
(3) *hyperbole*
(4) *interference*

It is interesting that Crowley distinguishes these as *forces* of change, when other writers treat the first three as *types* of change. Stern, for example, includes *euphemism* and *metaphor* (which in turn includes *hyperbole* in his analysis) under the category of *nomination*, and Bloomfield lists *metaphor* and *hyperbole* as types of semantic change. As examples of *interference*, Crowley refers to situations where a word is consciously avoided, because it (or a homonym) has acquired a negative or taboo meaning. This "interference" of the negative meaning provides the impetus for speakers to discontinue using the word in its original meaning. The resulting semantic change is a *bifurcation* (acquisition of new meaning), followed by *semantic shift* (eventual loss of original meaning).

According to Geeraerts (1997, pp.93-101), four basic types of denotational semantic change are traditionally recognized:

    (1) *specialization*

    (2) *generalization*

    (3) *metonymy*

    (4) *metaphor*

In addition to these, he notes that some scholars have chosen to treat *conventionalization of conversational implicatures* as a separate type of semantic change. *Metonymy* and *metaphor* are of course also to be found on Bloomfield's list. *Specialization* refers to a contraction of reference, equivalent to the term *narrowing*. Similarly, generalization, like the terms *widening*, *broadening* and *extension*, refers to an expansion of reference.

Traugott and Dasher (2002, pp.27-29) also make reference to *metaphorization* and *metonymization*, choosing to employ these particular terms instead of the traditional ones in order to differentiate their "dynamic dimension" as mechanisms of change, as opposed to a "synchronic, static" perspective. They point out that metaphor was regarded as the major factor in semantic change for most of the twentieth century, but that metonymy has recently come to be recognized as potentially more important than metaphor, adding that "metonymization provides as rich an explanation as metaphorization for semantic change, and in many cases a richer one." Traugott and Dasher also note that Stern was aware of this years earlier, as his categories of *permutation* and *adequation* both represent types of metonymy. Stern also includes *metaphor* in his classification scheme, but in a different category, namely *nomination*.

Clearly, the various types of semantic change are interrelated in complex ways. Stern (1931), for example, calls attention to the fact that the semantic shift in the word *horn*, from only meaning 'animal horn' to also signifying 'musical instrument', entails both *substitution* and *adequation* in four distinct phases (p.382):

    (1) *horn* refers only to 'animal horn'

(2) substitution: *horn* comes to refer to animal's horn used as musical instrument

(3) adequation: 'musical instrument' aspect of meaning supersedes 'animal horn'

(4) substitution: *horn* comes to refer to 'musical instrument' regardless of material

Metaphor and metonymy also display a complex relationship. Traugott and Dasher (2002) note that "Metaphorization is regarded as not only a constraint on but also often the outcome of metonymic change" (p.29). They further explain that metaphor involves the mapping of one domain onto another, whereas metonymy is a matter of shifts within the same domain, but "what exactly a 'domain' is … has not always been so clear." Ultimately, "metaphor and metonymy involve different axes but they interact" (p.79).

As a conclusion to the discussion of types of semantic shift, the following chart is provided for ease of comparison. (What Crowley regards as *forces* influencing the direction of semantic change are italicized.)

Stern	Bloomfield	Arlotto	Crowley	Geeraerts
	-----------		bifurcation	
	degeneration		-----------	
	-----------		semantic shift	
	elevation		-----------	
	narrowing	narrowing	narrowing	specialization
	widening	extension	broadening	generalization
			euphemism	
nomination	metaphor	figurative use	*metaphor*	metaphor
	hyperbole		*hyperbole*	
	litotes			
			interference	
permutation	metonymy	(figurative use)		metonymy
adequation				
	synecdoche	(figurative use)		
substitution		subreption		
analogy				
regular transfer				
shortening				

Although the causes of semantic change are not always entirely clear, there is no doubt that a change of environment for the speakers of a given language inevitably results in some degree of change in the meanings of words. Change of environment, perhaps more often than not, involves exposure to new things and the loss of older things. Existing words may be employed in referring to new things (based on some sort of perceived similarity with a known object or experience), thereby resulting in a semantic bifurcation or shift. As old things are lost or left behind, the words which refer to them may merely disappear over time, or they may acquire new meanings, again resulting in semantic change. In addition to the losses and gains of old and new respectively, change in familiar objects, whether due to technological, cultural, or other reasons, also often accompany a change of environment.

Conversely, those same changes could in themselves be regarded as a change of environment, as with the example of *car* 'wheeled vehicle' > 'automobile', discussed earlier. The progress of technology and the ongoing cultural evolution found in all societies serve to effectively create a different "environment" for their members, even if they never emigrate to other areas. Moreover, the shifts in speakers' attitudes and perceptions that occur with either type of change in environment can also result in significant semantic change. As already demonstrated, change in meaning is at least as closely tied to emotive and aesthetic factors as it is to more practical aspects.

Clearly, semantic change is complex and idiosyncratic, and does not involve the same degree of regularity and predictability as phonological change. Given the existence of universals in other areas of linguistics, however, it would come as a surprise if semantic change exhibited no universal tendencies whatsoever. Several researchers have in fact investigated potential cross-linguistic trends in semantic development in specific lexical domains, namely colors and flora/fauna. Languages vary widely in the number of color distinctions reflected in their lexicons, and some languages distinguish only several basic colors. Berlin and Kay (1969) assert not only that their comparison of 98 languages "strongly indicates that semantic universals do exist in the domain of color vocabulary" (p.1), but also that these universals can be regarded as "evolutionary" in nature, such that a particular language, in the course of its development, will generally progress through

the following seven basic stages (or fewer) in roughly the order shown below. (Quotation marks indicate terms intended to designate broad color *categories*, rather than the specific colors usually denoted.)

Stage	Color terms added
1	"black" (dark hues), "white" (light hues)
2	"red" (incl. red, orange, yellow, brown, pink, purple)
3	"green" (incl. blue) or "yellow" (incl. light green and brown)
4	"green" or "yellow"　(*whichever was not added at Stage 3*)
5	blue (emerges from "green")
6	brown
7	all eleven basic color categories (incl. purple, pink, orange, grey)

There is of course a great deal of variation within individual languages, and the description of the seven stages above is intended as merely a rough approximation. As just one example, languages in Stage 7 do not necessarily possess all eleven color terms, but may have only eight, nine, or ten. There are also languages that depart in one way or another from the order of the seven stages. In Japanese, for example, it may be the case that the term for *blue* is older than the term for *green*, which would result in an obvious counterexample to the sequence outlined above.

Brown (1984) has investigated potential universals of semantic change by analyzing botanical lexical items in 188 languages, as well as lexical items referring to animal life-forms in 144 languages, and has proposed a hypothetical "life-form encoding sequence" for each, similar to the sequence that Berlin and Kay have hypothesized for colors. As with colors, languages vary in the number of distinctions reflected in their vocabulary regarding plants and animals, with some languages making fewer distinctions than others. According to Brown, "ubiquitously occurring life-form categories … are lexically encoded by languages in relatively invariant orders" (p.23).

As with the color terminology discussed earlier, the terms used in the following

charts refer to *categories*, whose specific members vary from language to language. Note that Brown uses the term *grerb* ('grass' + 'herb') for the joint category that includes both grasses and herbaceous plants, and the term *wug* ('worm' + 'bug') for a small creature other than a bird, fish, or snake. Again, the idea here is that a particular language, in the course of its development, will presumably pass through the following stages (or fewer), acquiring lexical distinctions in roughly the order shown. (It is immediately apparent that there is a great deal more variation in the particulars of the actual stages than is found in the color sequence proposed by Berlin and Kay.)

Stage	Botanical terms added
1	none
2	tree
3	grerb or grass
4	bush or vine or　[grerb or grass (*whichever was not added at Stage 3*)]
5	bush or vine or grerb or grass (*one that was not added at Stages 3-4*)
6	bush or vine or grerb or grass (*whichever was not added at Stages 3-5*)

Stage	Zoological terms added
0	none
1	bird or fish or snake
2	bird or fish or snake (*one that was not added at Stage 1*)
3	bird or fish or snake (*whichever was not added at Stages 1 and 2*)
4	wug or mammal
5	wug or mammal (*whichever was not added at Stage 4*)

Brown enumerates four types of evidence, in addition to implicational relationships, that he believes provide support for his proposed encoding sequences:

(1) reconstruction based on the comparative method of historical linguistics

(2) frequency of use of the terms in question

(3) morphological and phonological complexity of terms

(4) acquisition order in child language learning

Brown, together with Witkowski (1981), has also examined cross-linguistic tendencies in figurative expressions for human body parts, but the focus of the study was lexical universals, rather than universals in semantic change, and therefore did not involve any encoding sequences.

In summary, significant progress has been made in analyzing and documenting the various types of semantic shift and the correlations between them, as well as the forces that motivate such change, but a comprehensive account of semantic shift in the English language, as well as a fuller understanding of the cross-linguistic universals of semantic shift that it shares with other languages, is not yet in our grasp. Unlike phonological and morphological change, which involve more concrete data, the complex phenomenon of semantic shift is fraught with abstractions and ambiguities, due in part to the elusive nature of "meaning" and our limited understanding of the precise workings of the human brain.

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