

THE SIGN IS NOT ARBITRARY

One of the cardinal assumptions of linguistics is that the signs of language are, by and large, not appropriate to the meanings that they convey. I do not mean that linguists have assumed that signs are inappropriate, but only that there is no bond between the sign and its meaning which could not as well be dissolved in favor of some other sign with the same meaning: *perro* is a historical accident that has perpetuated itself, but has no more intrinsic right to symbolize 'perro' than has, say, *becerro* or *alma*.

The assumption of the arbitrariness of the sign has had its causes and its effects. To a great extent I suspect that it was born, or at least confirmed, at the hands of the comparativists, who observed the series *perro-dog-can-chien-hund* etc. and concluded that since forms differing as radically as any set of forms can differ in their phonetic content are yet able to convey a meaning with equal aptitude, the question of aptitude is irrelevant and resemblances for the most part are to be studied as indications of related origin or contact, not as suggesting any kind of psychological or semantic necessity.

Among its effects the most far-reaching has been the divorce between linguistics and semantics. If the sign is arbitrary, forms can be studied apart from meanings — indeed, to attempt to involve meanings in the study of forms is to invite confusion. This has bred a generation of linguists who display acute symptoms of fright and its accompanying compensations when meaning is mentioned, who have elaborated subtle techniques for circumventing it in their analyses, and who have left the investigation of meaning adrift and at the mercy of a few competent semanticists among a legion of charlatans. It has, to be sure, restricted their field and relieved them of a burden that a young science would have found it hard to bear; but linguistics has now gone far enough no longer to be excused

from assuming that burden. To convince our linguists, it is necessary to attack their fundamental assumption of the arbitrariness of the sign.

If the sign is not arbitrary, there must be an intimate connexion between form and meaning — sufficiently close at times for form to influence meaning, and for meaning to influence form. This influence can take two directions: transformation and inclusion or exclusion. In the first, 1. a meaning alters a phonemic shape or 2. a phonemic shape alters a meaning; in the second, 3. a meaning may spell the difference between the existence and non-existence of a given phonemic shape within the language, or 4. a shape may do the same for the existence of a meaning.

To put the question in its proper perspective, let us take a position from which we can get a concrete view of language. In a physical sense language is a series of movements, articulatory or auditory, that take place within the physiology of individual human beings. To the comparative linguist it has a sort of existence of its own, independent of the individual, wherein utterances may be matched across space and time. To the physical positivist it has no existence apart from its realization by separate speakers and hearers, and no comparisons are productive unless effected within the speaker's daily activity. Language from this point of view is systemic¹, and is controlled by a dynamics that is the same as for any other physiological activity involving goals, be it dancing, table etiquette, courtship, musical composition, or wood-carving. The activity and its goal are largely learned from others, but they become part of the individual the moment that he acquires them; his role is paramount, for it is only within him that forms and meanings jostle one another.

It follows that no new movement, and no new goal, can be ingested without adjusting itself to the apparatus already on hand, and that a process of continuing adjustment goes on forever among all the parts of that apparatus. So long as we

¹ The systemic nature of language is maintained by J. R. FIRTH, e. g. in "The semantics of linguistic science", *Lingua* 1: 393-404, 1948.

use the same arms and legs for playing golf as for riding a bicycle, neither skill can be acquired without drawing upon the other that has already been learned, be it ever so little. So we must say that in a systemic view of language, cross-influences will be as pervasive as in the currents of a river.

Against this generalized background we see that the "substitutive" or vicarious function of words is substitutive only at first. We are accustomed to regarding the reaction of mouth-watering at sight (visual image) of a lemon as "natural", and the same reaction on hearing (auditory image) the word *lemon* as "arbitrary". But once the activity of the word has been integrated into the individual's system the reactions based upon it are as "natural" as any other. The sound *lemon* becomes a part of the sensory complex 'lemon' just as the sound of a bell, heard frequently (but not always) when other bell-stimuli are presented, becomes part of the sensory complex 'bell'. The "form" *lemon* is now a part of the "meaning" 'lemon', and may be abstracted from it to represent it, on the basis of the part standing for the whole, just as a pictorial image or a smell or a taste may be abstracted from the whole and used to represent it². To the language-learner already familiar with the sound of galloping, the word *galloping* may have seemed appropriate at the very first; but, once learned, *run*, with little or no onomatopoeia, is just as vivid. Whatever its origin, be it as pictorial as an imitative word or as abstract as the numeral *ten*, once part of the individual's equipment it can no longer be arbitrary, and cannot "just as well" be something else. "Arbitrary" things are learned in the same way, and with

² I am here using *meaning* to signify a psychological Gestalt, so related that the whole may be set in motion by the movement of one part. The parts usually abstracted are those most convenient to handle and carry about — in particular, language and graphic representation; but they are not *sui generis* by that fact. It might be better to consider *meaning* to signify the *r e l a t i o n s h i p* between the abstracted part and the whole; but for the purposes of this study it makes no difference, since we can consider a given form to be affected either by other forms ("other forms" being *meaning* by my definition) or by its connexion with other forms — in either case *meaning* cannot be divorced from form. I avoid the simplistic conception of meaning as a tie between a symbol and a thing, since it is too dependent on concrete nouns for its cogency and since it implies a theory of reality which is psychologically untenable unless *thing* is specially defined.

exactly the same systemic results, as “natural” ones. The synapses of the brain are no respecters of any such dichotomy³.

When we speak of sound-suggestiveness, then, we speak of the entire language, not just of a few imitative or self-sufficient forms. And we speak of units of that language smaller (and from the etymological point of view more disorganized) than anything which linguistic formalists have conceded to suggest or have meaning, as I shall now try to prove.

It has never been contended that complex utterances are arbitrary in the same sense in which *arbitrary* has been applied to morphemes. When I say *The fire consumed the house* I “might as well” say *mabu*, an arbitrary sign to symbolize the entire occurrence. The fact is, however, that in my language experience parts of the utterance correspond to parts of the event — and the whole utterance is to that extent not arbitrary, for it is articulated in some such way (remote as you please to call it) as the event itself. Here meaning and form affect each other. Now there is no reason why this habit of non-arbitrariness, of point-to-point correspondence, should stop at the level of complex utterances. It continues to the level of morphemes and beyond. And herein, at the floor of language where phonologists and morphemicists have made their stand and where signs have been pictured as unimpeachably arbitrary, we are challenged to find proof that language is still systemic.

1. *A meaning alters a phonemic shape.*—This includes the traditional “popular etymology”, which comparative linguists have been wont to class among the museum pieces of their craft. Examples are common and a few will suffice. The alternating Spanish forms *tajamanil* and *tejamanil* ‘shingle’, which Santamaría derives from Aztec *tla* ‘thing’ and *xamanilli* ‘broken, split’, show each an assimilation to another word: *tajamanil*

³ For an event to become linguistic, however, a great many brains must play in unison. It is possible for one person to produce an utterance like *The grain terminals were glittered*, in which the forms and meanings of *glutted* and *cluttered* are blended. While this is exactly the same thing, as far as the individual is concerned, that occurs when sight of snow produces a remark about snow (an old linguistic event is reproduced) or when for the first time the English word *goof* is used for ‘fool’ (a new event occurs and is made linguistic through repetition induced by the linguistic frequency of [u] for ‘foolish’), it is not linguistic, for it is not perpetuated.

to *tajar* 'cut' and *tejamanil* to *teja* 'roofing tile'. A colleague writes *peatón* 'pedestrian' as *pietón* (pie 'foot'). A relative pronounces *hybrid* identically with *high-bred*, an obvious inference from modern genetics. To me, as a child, *Jew's harp* was *juice harp*, for saliva played its negative part in the instrument's performance. The name of a variety of watermelon, *Kleckley Sweet*, which crackles when cut, has been heard as *Crackly Sweet*. In all such instances the form is made analytically meaningful as well as meaningful in its entirety. The articulatory movements in *Kleckley Sweet* and *Crackly Sweet* are sufficiently similar to create interference and confusion — the movements in *crackly* are so intimately tied to their meaning that similar movements suggest the same meaning if other circumstances are favorable, whence the initial phonemic shape becomes itself a cause of its alteration. The favorableness of the circumstances need not be nearly so striking as in *Kleckley Sweet*; the oilworker's device called a *Schlumberger* (with a correct French pronunciation) became *Slumber Jay*⁴, with only the vaguest significance in either element of the new form. The phonetic elements of a language are like the keys of a piano. They have been played so often and in so many combinations that even a random cord, struck by an object accidentally falling on them, will have some vague semblance of meaning.

But popular etymology is only one manifestation of the phenomenon, an easy one to single out because whole words, and comparatively few of them, are involved. It is revealed in another of its aspects in the identification of parts of words which are partially synonymous, where it is difficult if not impossible to regard the parts as separate morphemes. English *smash* is converted from *mash* under the influence of *smear*, *slash*, etc. *Regardless* > *irregardless* comes through attraction to *irrespective* and other words with initial *irre-*. A broader aspect is that of larger units, whose shape may be determined by the suggested meaning of one of their parts. English *rapt*, for example, is homonymous with *wrapped*, and phrases like *rapt attention*, *rapt expression*, where the observer is 'wrapped up'

⁴ LALIA P. BOONE, "The language of the oil field", *American Speech*, 24:33, 1949.

in what he observes, enjoy a higher frequency in spoken English than others attributable to the lexical meaning of *rapt*.

The ideal conditions under which to test the influence of meaning over phonemic shape are those obtaining when new expressions at the level of morphemes are deliberately created. Such conditions are infrequent, but are found occasionally in the work of poets and often in the work of advertising men. Examples of the latter are the trade names that have been applied to soaps and soapless detergents in American English. The first and best-known of the latter is *Dreft*, an obvious echo of *drift* (and of other monosyllables with final *-ft* which suggest pleasant or poetic meanings: *soft, oft, lift, sift, tuft, deft*). Not to be outdone in this hint of drifting suds, another manufacturer has come forward with *Tide* and a third with *Surf*. In such terms, of course, the primary meaning is the product; a secondary meaning, which the seller wishes to suggest, influences the form.

2. *A phonemic shape alters a meaning.*—Ideal conditions here are also those of invention. If we coin a nonsense word, and get substantial agreement from a number of hearers as to what it “seems to mean”, we have evidence of the pressure that shape can exert on meaning. To make such a test I coined the presumably non-existent English word *smuck* and submitted it to a group of sixteen persons asking them to state in writing, first, whether it seemed “nice” or “not nice”, second, what the word seemed to mean. Responses were as follows:

Nice	2
Not nice	13
(No reply	1)

Definitions:

1. Dirt, mud	5
2. Something slimy or sticky	1
3. Worthless (low-bred, socially unacceptable) person	4
4. Stupid act	1
5. Stupid person	1
6. Opprobrious name for a foreigner	1
7. Slap	1

Meanings 1 and 2 echo *muck, mud, mire, marsh, moor, morass*, etc. Meanings 3-6 reflect the unfavorable implication of the former and add an echo of the recent epithet *schmo*. Similar tests that I have run, and which there is no space to report here, have shown equally striking agreement. Perhaps even more significant than the figures is the cooperativeness with which speakers enter into a suggestion of this sort: it seems natural to them that sound should affect meaning.

In the foregoing, however, we have started with an assumed zero meaning. What of a form that is already established in the language? Probably, for form to affect it radically, its prior meaning must be attenuated. Instances of this sort are numerous among the mistakes that speakers make in attempting to use words that they have heard but imperfectly understood, inferring a meaning from an insufficient number of contexts. A critic's reference to a novel as having a *somewhat portentous title*, echoing *ponderous* and *pretentious*, is probably an individual lapse; but *mitigate* is frequently heard in the sense of *militate* (both followed by *against*). The English *shambles* 'slaughter house' was extended to 'carnage' which is close enough to 'destruction' so that the echo of *shoddy, shamble* (gait), *shanty, shack, shiftless*, an other *sh-* words could carry it through and beyond to 'mess' of any kind, which is its current meaning.

The prior meaning may be one that is thoroughly known, however, but with conditions so favorable that two forms converging phonetically also converge semantically. This has happened with the English nouns *shoot* and *chute*, and probably for many speakers with the Spanish verbs *acechar* and *asechar*.

Subtler examples, though less convincing to the skeptic, are more numerous and more typical. The primary meaning of *jacket*, for instance, is 'short coat', which, being fabric, is perfectly flexible. Yet *jacket* echoes *jagged* and *rigid* besides the hardness so characteristic of [æ] in English; this fact has undoubtedly supported its extension to 'rigid covering', as in *strait jacket* and *steel-jacketed*.

Where subtle examples become undeniable, however, is in constellations of words having similar meanings tied to similar

sounds. How such constellations originate is immaterial: it may be that a given sound, as has been maintained by many writers for [i] in the sense of 'smallness, tenseness', has a pre-linguistic meaning; it may be that some one word is used so often that phonetically similar words are affected, as has apparently happened with English *bulge* reflected in *divulge* and *indulgent*, suggesting 'expansiveness'; or it may be that two or more forms coincidentally resemble one another in both form and meaning, thereby drawing closer together and pulling other forms into their orbit, as seems to have happened with *chary*, *wary*, and *scary* (*skeery*) in their effect upon *leery*. The result is the same: the cluster maintains itself and attracts outside matter to it. Examples in Spanish are *tajar*, *rajar*, *ajar*, *bajar*, *fajar*, *majar*, *sajar*, and *desgajar*, analogizing closely with English *bash*, *mash*, *smash*, *crash*, *dash*, *lash*, *hash*, *rash*, *brash*, *clash*, *trash*, *plash*, *splash*, and *flash*. The whole *esdrújula* family in Spanish is peculiarly dramatic, and Carlos García Prada writes mockingly, "Dice *férvido* me mande porque ese adjetivo es más enérgico que el acostumbrado *fervoroso*, y que *ferviente*". The coined forms mentioned above were suggested by constellations and the persons tested clearly felt the attraction exerted by the constellation. In Spanish there exists the cluster *derrabar*, *derramar*, *derrenegar*, *derrengar*, *derretir*, *derribar*, *derrisión*, *derrocar*, *derrochar*, *derrotar*, *derrubiar*, *derruir*, *derrumbar*, and *derriscar*, all hovering about the related meanings 'destroy, bring down, mistreat'. When I coined the word *derrufe* and asked three speakers to imagine meanings for it, the replies were 'vagabundo', 'payaso', and 'derrumbe' (the first two possibly combining the alliterative *rufián* with 'hom-bre caído')⁵.

⁵ The literature on morphosemantic constellations in English includes: ALBERT H. TOLMAN, "The laws of tone color in the English language", *Andover Review*, 7: 326-337, 1887; "Expressive power of English sounds", *Atlantic*, 73:478, 1894; "Symbolic value of English sounds", in his *Views about Hamlet*, 141-72, Houghton Mifflin, 1904 (Tolman adopts the term *sound symbolism*). OTTO JESPERSEN, *Language*, 312ff and 396ff, New York, Holt, 1922. EDWARD SAPIR, "A study in phonetic symbolism", *Journal of Experimental Psychology*, 12:225-239, 1929 (Sapir contends that phonetic symbolism is pre-linguistic and not primarily caused by word associations; this is probably true within the limits of his study, but not in general). CHARLES E. A. MOORE, "A preliminary study of the emotional effects of letter-

But, our critic may ask, do events occur thus in a natural situation, or only under the artificial conditions of intentional coinage and interrogation of speakers? An answer is supplied by the word *magnolia*, from *Pierre Magnol* and hence etymologically without bearing upon the phonetically similar *magnificent*, *magniloquent*, *magnify*. Yet the suggestion of 'magnificent flower' is so obvious that speakers of English have brought them together, creating *magnolious*, a humorous synonym of 'magnificent'. When *miniatures* (< *minium* 'red lead') were introduced, their customary smallness offered no resistance to the attraction of the numerous *min-* words for 'small' (*minimum*, *minion*, *minnow*, *minute*, *minutia*), and it has now come to signify 'small' itself. *Minikin* is another non-etymological accretion to this family.

3. *A meaning keeps or destroys a phonemic shape.*—A form which is tied to one tabooed meaning among a number of respectable meanings, may be destroyed in all of its senses by that one meaning. This is a familiar phenomenon; it has occurred with *huevo* in Mexican Spanish (replaced by *blanquillo*) and with *coger* in Argentine Spanish (replaced by synonyms of the approved meaning). To be sure, the "destruction" here is not complete with all speakers, since tabooed forms

sounds", *Quarterly Journal of Speech*, 24:134-149, 1938. DWIGHT L. BOLINGER, "Word affinities", *American Speech*, 15:62-73, 1940. E. H. STURTEVANT, *An introduction to linguistic science*, 111-112, New Haven, 1947. J. GONDA, "The comparative method as applied to Indonesian languages", *Lingua*, 1:86-101, 1948 (a major part of the Indonesian vocabulary shows morphological effects of semantics). There are also unpublished studies by Fred W. Householder, Jr., of Indiana University.

Another test in Spanish: The feminine names *Teresa* and *Alicia* were offered to two groups, one of nine persons working at the Caro y Cuervo Institute in Bogotá and the other of twenty-five students in upper-level secondary school in the same city. They were asked to write the name that seemed to them more 'deleitoso'. In the first group, *Alicia* was favored by six to three, and in the second *Alicia* was also favored, twenty-one to four. This probably shows the influence of *delicia*, perhaps supported by *primicias* and *albricias*. Compare, in English, the creation of *delovely* about ten years ago from the word-family *delicious*, *delightful*, *delectable*, *delirious* (*with joy*). A similar test with nonsense-words *sabo* and *saba*, to show an assumed relationship between gender and size, failed of effect, possibly because the "feminine augmentative" is no longer productive in Spanish, or possibly because the sonic element is too small — much smaller than any others tested.

maintain a clandestine existence for a time or indefinitely; but the forms are not openly heard, and consequently disappear from the vocabulary of the more innocent.

Taboo that is not connected with metaphor begins with the prohibition of larger units and ends with the prohibition of a recurrent partial. Thus *belly* as an anatomical term is inoffensive, but *belly* is also appropriate to all the situations in which the part of the body that it names might figure (*He groveled on his belly* — besides many unprintable contexts — where *abdomen* will hardly do). Some of these situations are forbidden, and *belly*, now impregnated with them, is replaced with *abdomen* or *stomach*. The partial is usually a word, but now and then is something less: English *spissed* was probably helped to oblivion by its rime.

4. *A phonemic shape keeps or destroys a meaning.*—The conspicuous examples are those of “conflict of homonyms”. Contexts employing Spanish *veneficio* ‘maleficio’ clashed with those using the identical antonym *beneficio*, and the first gave way. Similarly with English *let* ‘hinder’ and *let* ‘allow’. We cannot explain the disappearance of one meaning simply as an intellectual choice made to avoid confusion, for languages do not evolve intellectually. The reason is again the bond between a meaning and a form, resolved in favor of the stronger bond when two are in conflict.

Less conspicuous are examples where a prior meaning is lost by attraction of the form to similar forms with different meanings. English *callow* means ‘beardless’, and, by extension, ‘immature’. As used by fledgling writers, however, it has so fallen under the influence of *sallow* (reinforced perhaps by *pallor* and *hollow*) that it is made to refer to the complexion.

CONCLUSIONS

Maurice Bloomfield wrote in 1895, “The question as to how much plasticity may have been imparted to the lexical value of words by the cloud of formally assonant words, with meanings not too far removed, that hover about them, would form one of the most fruitful and profound investigations in

linguistic history”⁶. My brief study makes no pretense of being profound, but it does attempt to dignify such an inquiry by proving its absolute relevance to anything that linguists may attempt to do with meaning—as they increasingly must as they go beyond phonemic analysis.

While I have attempted to prove the vast importance of cross-influences, I have not aimed at demonstrating their omnipotence. We can be singularly deaf at times to an assonance that seems as if it ought to clamor for attention. The existence of a constellation in *blob, gob, cob, knob, daub, bob, job, hob*, and *job* implying ‘compactness’ reflects little upon *snob*. *Toilet water* remains a delicacy despite the unfavorable implications of *toilet*. This is not fatal to my thesis, which was that a given form is physiologically tied to a given meaning. Any discriminable form, however similar (and discrimination here includes non-linguistic context), may be tied to a totally different meaning. It is sufficient evidence if we find that a large part of the time similar forms will tend in the direction of similar meanings. We are in the position of a doctor who proves the existence of a disease by pointing to an infallible symptom, but does not disprove the disease by the symptom’s absence. Language, like health and like disease, is systemic.

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⁶ *American Journal of Philology*, 16:413, 1895. I owe this citation to Professor Allen Walker Read of Columbia University.