AGAINST ARBITRARINESS: IMITATION AND MOTIVATION REVIVED, WITH CONSEQUENCES FOR TEXTUAL MEANING

LINDA R. WAUGH

One of the *idées reçues* of all the disciplines that study language is the assumption that the relation between sound and meaning is arbitrary. And this is so whether language is at the center of concern or is one among a number of topics of study. That is, textbooks in linguistics, handbooks of semiotics, manuals of literary and critical theory, discussions of structuralism and poststructuralism all cite as a first principle for language the arbitrariness of the connection between form and meaning. Any aspect of language that goes against this assumption is considered to be only a minor exception to the general rule.

Out of this has arisen a further principle, namely that form and meaning are quite separate, quite autonomous from each other. Many linguists, for example, those inspired by Chomskian generative grammar, see language in terms of compartments or modules and claim, for instance, that phonology and syntax are related in only indirect ways to semantics. The path from a given sound to a given meaning is a highly circuitous one. And while in literature many assume that there is a tight connection between form and meaning in theory, in the practice of many current forms of literary criticism—deconstruction, psychoanalytic approaches, reception theory, and the various forms of cultural and political criticism—the connection between form and meaning is loosened. It is common to see the study of textual form yield the impossibility of meaning in principle or the location of meaning not at the manifest, surface level of the text, but rather at the latent level, behind or beneath the text. Or meaning is seen in terms of the reception of the text by its readers or its audience. That is, the location of meaning is in interpretation, not in the text. In other words, in some types of linguistic and literary theory, phonological form or textual form is quite separate from semantic interpretation.

As a consequence, then, the only place where sound and meaning are seen consistently as directly tied to each other is the lexicon (vocabulary): words like *tree* or *sister* combine a sound-form with a meaning. But the lexicon is also assumed to be the repository of all that is unpredictable and idiosyncratic—and arbitrary. Indeed, the canonical example of arbitrariness—from Ferdinand de Saussure's *Cours de linguistique générale* [67]—is a lexical one: that *tree* begins with *t* or *sister* ends with *-er,* it is claimed, seems not to be motivated by the meaning, and thus it doesn't really make any difference

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whether it is these sounds or any others that are included in the signifiers of these words [see Culler, *Saussure*; Holdcroft].

This unanimity of opinion is surprising, for it is a commonplace of American academic life—and perhaps intellectual life more generally—that linguistic and literary theory have diverged significantly, especially in the last fifteen to twenty years. One example of this divergence is the issue of the relation between meaning and reference, that is, the relation between the signified and the external world, between the conceptualizations of language and the extralinguistic (but nonetheless semiotic) world to which we refer in using language.

On the one hand, a good deal of literary theory has assumed the strict separation of meaning and reference. That is, insofar as the most recent approaches to literary texts question how we define textual meaning, they owe a debt to the deconstructive critics, who put into doubt authorial intention and coherent meanings of texts and who argue for the strict separation of signifier and signified [see Culler, *On Deconstruction*; Norris; Lewis]. Deconstruction in its turn is indebted to Saussure [see also Culler, *Saussure*], who called for the separation of signified and reference. Thus, the historical and intellectual base of much of literary theory today, however social or political its orientation, is the often unacknowledged but nevertheless strict separation of meaning and reference. On the other hand, in linguistics there has been a tendency to see meaning and reference as tightly connected to each other, and meaning is investigated through the truth value of sentences, which is assumed to be tied to the truth or falsity of the referential situations that those sentences denote [see Chierchia and McConnell-Ginet]. Thus, a good deal of modern linguistic theory is based on the close interconnection of meaning and reference.

These differences in theory lead to quite autonomous intellectual worlds and to a striking contrast between their intellectual discourses. Of course, there are many important areas of origin, contact, and overlap between linguistic study and literary study. But there seems to be no center of gravity to pull the debates together. What I would like to do here is to suggest that a redefinition of the theoretical underpinnings of the two disciplines could help in rethinking how language and texts are viewed; in so doing, perhaps better insight can be gained into what the two areas have in common. In particular, I will argue for the importance of iconicity in language, and for imitation and motivation more specifically insofar as they are examples of iconicity. That is, I will be arguing for the closeness of the tie between sound and meaning and will be providing evidence against the strict separation of the two.

My argument will rest on two basic assumptions. First, meaning is not the same as reference: I will be showing that similarity is a crucial aspect of the close tie between sound and meaning—*not* sound and reference—and the evidence will be language-internal. Second, iconicity is an overlay onto the conventional relation between sound and meaning: the pairing of a given form with a given meaning is conventional, that is, established by a particular linguistic system. The question is whether a given conventional association is iconic or not. This assumption is crucial, since in the arbitrariness literature (and in introductory linguistics textbooks and readers in poststructuralism), there is often an erroneous conflation of conventionality and arbitrariness [see, on this conflation, the discussion in Waugh and Newfield]. However, in conformity with the work of Roman Jakobson [see references under Jakobson in the works cited; see also Waugh and Monville-Burston], with much of the semiotics literature [see, for example, Nöth], and with, in particular, the writings of Charles Sanders Peirce, I consider conventionality and arbitrariness to be two separate theoretical issues: what is conventional may or may not be arbitrary.

This point of view is also reflected in linguistics, where in the last fifteen years or so, there has been a large amount of research, inspired by functional theories of language [see Nichols], showing that some of the conventional rules of inflectional morphology and

syntax are iconic in nature. So, for example, syntactic patterns like word order, relative distance of one element from another, longer vs. shorter syntactic constituents, symmetrical and asymmetrical structures—and many others—all exhibit iconicity. But, even this work claims, the lexicon is arbitrary [for example, Haiman 10; Haiman is just one among many]. In other words, the relation between form and meaning in individual words is arbitrary, even if in some cases the way in which they are related to each other through the grammar of the sentence is iconic. We have thus come to the crux of the issue: is the lexicon the first and last (and perhaps only) refuge where arbitrariness resides?

In order to provide an answer to this question, I will put the English lexicon under the iconic lens and show that there is much more iconicity in the lexicon than is generally believed: there are many cues for the meanings of English words in the specific sounds used to form those words.[1] I will argue, however, that there are serious constraints on iconicity in the lexicon, constraints due to the nature of lexical meaning. These constraints are *not* the ones that have been the focus of discussion about arbitrariness, and yet they are, I think, crucial if we are to understand the basic issues in this area, since they will also lead us to reflect more generally not only on lexical meaning but also on textual meaning.

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Evidence for Iconicity

In a discussion that, characteristically, is as pithy as it is startlingly original, Peirce shows that there are three general types of icons: images, diagrams, and metaphors. In image iconicity there are qualities of the form that resemble qualities of the meaning; a photograph is a nonlinguistic example; onomatopoeia and sound symbolism are the linguistic examples we will discuss here. Diagrammatic iconicity is relational in nature; in Peirce's own words, "diagrammatic icons represent the relations of the parts of one thing by analogous relations in their own parts.... [M]any diagrams resemble their objects not at all in looks; it is only in respect to the relations of their parts that their likeness consists" [105]. A bar graph depicting the relation between the higher value of the dollar in 1960 vs. its lower value in 1990 is a nonlinguistic example; what has sometimes been called motivation is the linguistic example we will discuss here. As for metaphor, it is obviously an important part of the lexicon but will not be treated here.

Images

The first type of image iconicity is exemplified by onomatopoeia, a domain that is much vaster than is generally believed but that has gotten a very bad press in arbitrariness debates. In studying onomatopoeia, several things must be remembered:

that it encompasses imitation of our conceptualization of animal sounds, natural sounds, mechanical sounds and other types of sounds;

that the composition of onomatopoeic words is determined by the system of the language to which they belong (that is, that onomatopoeia, like any other part of language, is conventionalized);

that onomatopoeic words run the gamut from those where the whole word is onomatopoeic to those in which only part of the word is (that is, that a word is onomatopoeic even if only part of it is imitative);

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1. That is, I will be dealing here with the manifestation of concrete sound form and its potential iconic nature. I will be leaving aside the iconic nature of the more configurational and schematic characteristics of the structure of words.

and that onomatopoeia may be more subtle, as in *cough, rap, knock, ring, honk, sniff, splash, tap, click, crash,* or more overt, as in *thwack, plink, klunk, thunk, thump, hiss, woosh, slurp, meow.*

There seems to be a crowd of onomatopoeic verbs in English beginning with *g* and ending with some consonant plus *l,* such as *gabble, gaggle, garble, gargle, guzzle, gobble, grumble, gurgle, giggle,* as well as other consonant-plus-*l* words such as *fizzle, sizzle, cackle, tattle, mumble, chortle, chuckle, babble, rattle* [Malkiel, "English Verbs" 194–96]. And these are just the consonant-plus-*l* words! Determined and unbiased studies of the lexicon have found many more examples of hidden—or not so hidden—onomatopoeia.

But onomatopoeia is actually part of the more general question of sound-symbolism proper,[2] in which sound is related to a host of perceptual and conceptual phenomena associated synesthetically with sound. There are many such associations discussed in the rich and in many cases quite rigorous literature on this topic [see Jakobson and Waugh for a discussion of some of the literature]—and here again we have to leave aside dogmatic pronouncements denigrating sound symbolism. I will mention here only one conclusion of this research, namely the nearly universal correlation between the inherently higher-pitched front vowels (like English [i], [ɪ], [e], [ɛ]) and smallness and brightness (vs. the lower-pitched back vowels like [u], [ɑ], [o], [ɔ], commonly associated with bigness and darkness). Such relations form part of the lexical fabric of English. This is perhaps best exemplified with diminutives, in which the higher-pitched sound is correlated with smallness. A well-known example includes words ending with the sound pronounced as /-i/ and spelled *-ie* or *-y,* as in *sweetie, cutie, dolly, baby, honey.* I find myself using words of this type often these days: my five-year-old son is nicknamed *Davie*; we are *Mummy* and *Daddy*; his favorite stuffed animals are *teddy bears* and *Cornie,* a unicorn; he takes a bath with his rubber *Duckie,* eats *Rice Krispies* in the morning; I ask him if he's *comfy* in bed, give him a *drinkie,* wish him *nightie-night*; and so the list goes on.

But such examples are not only for use with children; in fact, the most comprehensive study of English word formation [Marchand] shows that virtually all English diminutive suffixes are based on front vowels or the dental consonants [t], [s], [n], and [l], which are also higher-pitched. These diminutives encompass the *-ette* of *kitchenette* (and *novelette, sermonette, balconette, dinette, luncheonette*), the *-et* of *midget* (and *grovet, riveret, tablet*), the *-let* of *droplet* (likewise *brooklet, riverlet, streamlet, ringlet, eyelet*), the *-kin(s)* of *bumpkin(s), thumpkin, babykins,* the *-ling* of *duckling* (cf. *squireling, steerling, hireling, underling, fledgeling, sapling, seedling, yearling*), and so forth [Marchand 222–67].

Many of the onomatopoeic examples mentioned earlier may also have sound-symbolic characteristics (in fact, we find here a phenomenon that is quite common: very often, there may be more than one iconic basis for a given word). "*[C]link* is a smaller sound, *clank* (and *clunk*) are bigger; we *chip* a small piece but *chop* a large one" [Bolinger and Sears 24]. These examples are also correlated with what has sometimes been called vowel ablaut: "a *slip* is smaller than a *slab* and a *nib* is smaller than a *knob.* Examples creep up spontaneously—'A *freep* is a baby *frope,*' said a popular entertainer in a game of Scrabble" [Bolinger and Sears 24].

Such synesthetic connections also have their influence in diachrony, as when sound change is blocked to maintain a more iconic formal shape. In *peep,* referring to the high-pitched sound of little birds, /i/ did not change to /ay/ as it should have after the Great Vowel Shift. This example combines onomatopoeia with sound symbolism proper, since

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2. *There is a great diversity of terminology in this area. Sound symbolism has also been called* mots expressifs, symboles spontanés, phonétique impressive, *intense forms,* Lautbedeutsamkeit, *foregrounding,* voces naturales, *phonosymbolism, and so forth. See Pharies [88], among others.*

the birds at issue are usually small. Or the sounds of a word, through their potential iconic value, may cue the reinterpretation of the meaning. *Eke out* used to mean "to make larger or longer, to increase." But, due to the sound symbolism of the /i/ vowel, it has come to be associated with a small income, with getting along on a meager amount [Justice 485].

However, it should be added that sound symbolism is not effective everywhere. Indeed, not all words in a language will have such sound-symbolic associations. They are actualized only if the sounds are appropriate to the meaning [see Whorf 267]. If the sounds do not fit, the relation between sound and meaning is more neutral, and the lack of motivation or even, in some cases, the incongruity is not noticed. So, for example, *big* and *immense* have front vowels, and *small* has a back vowel, despite their meanings. Moreover, speakers of a language differ widely in how salient the associations are for them. There seems to be a continuum all the way from those who find such associations to be quite strong and important to those for whom they are negligible, with many subtle differences in between.

Some language users are poets, while others turn a deaf ear to the music of language.

Diagrams

In the preceding discussion, we strayed somewhat from the typical image: for example, diminutives are based not only on inherent qualities of sounds but also on their systematic recurrence in sets of words—for example, the suffix *-ie* recurs in *cutie* and *sweetie* with the same meaning. This is one example of diagrammatic icons, which are based on the relations between words, in particular on the fact that across words there are recurrences of form coupled with recurrences of meaning. This consistency of form-meaning relations across words is known in the linguistic literature as the principle of isomorphism, or isomorphic iconicity,[3] which is a specific type of diagrammatic iconicity.

The major way in which isomorphism has been discussed is in terms of the one form-one meaning principle:[4] it means that sameness of form signals sameness of meaning, and difference of form signals difference of meaning. Put in this simplistic way, isomorphic iconicity conforms to the expectations of ordinary speakers and hearers: if there are two different words in a language, we expect them to be different in meaning; if we hear a familiar word in a new context, we expect its meaning to have some relation to its meaning in other contexts; if we hear an unfamiliar word, we expect it to have a meaning through which we can use it in another context and which will differentiate it from every other word.

Isomorphic iconicity is also the basis of the analysis of words into their smaller components, called morphemes. So, if we take the words *rain, rainy, raindrop, snow, snowy,* and *snowshoe, rainy* is diagrammatically related on the one hand to *raindrop* because of the common root *rain* and on the other hand to *snowy* because of the common suffix *-y*. This of course is (relative) motivation in Saussure's *Cours* [131–34; see also Culler, *Saussure* 30; Holdcroft], where he cites examples of compound words like *twenty-eight,* arguing that *twenty-eight* is motivated because of being made up of *twenty* and *eight.* There are many morphemes in the lexicon of English—in fact, a conservative estimate would list hundreds of prefixes and suffixes found in thousands of words—and the

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3. The term isomorphism comes from Haiman; it has also been called the requirement of optimality, economy of expression, the canon of singularity (1923), univocability (1925), and so forth—see also Anttila.

*4. Also known as form-meaning biuniqueness and the one form–one meaning principle; Bolinger states: "the natural condition of language is to preserve one form for one meaning, and one meaning for one form" [*Meaning and Form *x].*

number of compound words also runs into the many thousands [see Marchand; Adams; Bauer].

However, there is much more motivation in the lexicon than is shown by traditional studies of morphemes and compound words. Words that are totally divisible into morphemes are simply a more specific case of the general principle that words may have some internal structure. Just as onomatopoeia and sound symbolism may affect parts of words, so motivation may affect parts of words. An iconic field trip in the lexicon reveals many examples of such partial structure. One type is what have sometimes been called submorphemes, with many examples in English [see Jakobson, "Quest for the Essence of Language" 354]. The number system evidences several: for example, *tw* in *two, twelve, twenty, twin, twice*; *th-r* in *three, third, thirteen, thirty*; *t* plus front vowel in *ten, -ty,* and *(-)teen*; and so forth. So, in an example like *twenty-eight,* not only are *twenty* and *eight* each motivated, but so is the *tw* of *twenty.* That is, there are layers of motivation. Another example is the diagrammatic relation between the kin terms with *-ther*: *mother, father,* and *brother.* In addition, it is also known that the *th* of *mother* and *father* is not historically regular (it should be *d*); it seems as if the semantic similarity between the three kin terms led to the reshaping of *father* and *mother.* One can also go further and notice that *sister* and *daughter* share *-er* with these words. So, as Jakobson has pointed out ["Quest" 354], *sister,* in fact, is partially motivated—by its formal relation to these kin of the nuclear family.

Those who have done a close analysis of English and other lexicons have identified a large number of such types of partial diagrammatic relations.

But there are other diagrammatic relations that are characteristic of more far-reaching families of words. The most widely studied are based on what have been called phonesthemes,[5] small parts of words associated with some general meaning. The best-known examples are English initials such as /fl-/, which is expressive of movement and characterizes a family of words such as *flap, flare, flee, flick, flicker, fling, flip, flit, flitter, flow, flutter, fly, flurry*, and so forth [Bolinger, "Rime, Assonance and Morpheme Analysis" 207]. Compare /sn-/, found in words dealing with the nose: *snore, snorkel, sniff, sniffle, snuffle, snuff, snivel, snout, snoot, snub, snot, sneeze, snoop* [Bolinger, "Word Affinities" 197].

Often, phonesthemes are combined as well with onomatopoeia or sound symbolism, as with *sn,* where the *n* is also sound-symbolic. Another example is a cartoon published in *The New Yorker,* in which one tiger says to another: "griping, greedy, grasping, grotesque, gruesome, grisly—do you know of any other good grr words?" Well, in fact, I do, because *gr-* has been analyzed into three loosely connected phonesthemes:

(1) relating to something unpleasant (*grim, grisly, gritty, grotty, grotesque, greedy, gruesome, gruff*),

(2) relating to complaint (*grumble, groan, grunt, grieve, grudge, gripe, grumpy,* and even *disgruntled*),

(3) relating to undesirable rubbing (*grind, grate, grovel, grub*) [Bernard and Delbridge 151].

Actually, the list of phonesthemes in English is a long one and is expanding since there has been a flurry of interest recently in this area. However, I want to hasten to point out that not all words with a particular sound combination evidence a given phonestheme—or a given morpheme, for that matter. The diagrammatic iconicity is always limited by

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5. Again, the terminology in this area is also rather wide-ranging and encompasses root-forming morphemes, associative etymology, sound suggestiveness, champs morphosémantiques, *secondary associations, psychomorph, homonemes, expressive vocabulary, morphosemantics,* rapports associatifs, *phonosemantic correlations, phonosemantic units, assonance classes, and so forth.*

homonymy, that is, the same form with different meanings. So, for example, the prefixal morpheme *in* of *income* and *input* is not the same as the *in* of *incident*; the phonesthemic *fl* of movement in *flow* is not the same as in *flask* and *flat*; it's easy to find the nose in *snore* but hard to find it in *snow*; tigers might say *growl,* but they probably don't say *grin* and especially not *gratify.* Homonymy always limits how far motivation goes.

But, while word families characterized by phonesthemes, submorphemes, and morphemes are one result of the workings of isomorphic iconicity in the lexicon, they are not the only basis for form-meaning relations between words. In fact, analysts have discerned sometimes quite far-flung form-meaning recurrences across sets of words. Many such word-affinity relations, as they are called, have been depicted by diagrams showing multiple and crosscutting relations, such that a word may share one identity with one word and another, crosscutting identity with another word. So, *flutter* and *flitter* (which contain the phonestheme *fl*) partially share both form and meaning, as do *flitter, titter,* and *tatter*; but *flitter* is also related to *jitter, fritter,* and *glitter* (another phonestheme); and *tatter* is related to *scatter, batter, shatter*; *shatter* in its turn is related to *shiver* and *quiver,* which are related to *shake* and *quake* [Bolinger, "Rime, Assonance, and Morpheme Analysis" 220]. Some of this is no doubt a *reductio ad absurdum* [Bolinger, *Forms of English* 203], but the fact remains that many of the couplings shown here are not artificial; among other evidence for their association we have phrases like *shiver and shake, quiver and quake.*

Word-affinity relations are also a major factor in child language learning; witness the delight children show in rhyming and tongue twisters and playing with language. "Children sense these associative possibilities and coin words with them: *if the house is as old as that it's raggy, shaggy, and daggy,* remarked one seven-year-old; and referring to the muck at the bottom of an excavation the same speaker said: *It's all gushy-it's like mushy dushy*" [Bolinger and Sears 219]. It is interesting that in these examples children use both words they have heard from adults and words they make up on the basis of iconicity. And they use the made-up words in ways that suggest they believe that adults will understand. It seems that at this stage they are assuming that isomorphic iconicity is a powerful force in the lexicon.

But language play is not unique to children; adults indulge in puns and playful language of all sorts. Many residents of Ithaca proudly have bumper stickers announcing that "Ithaca is Gorges"; a headline in the 12 August 1992 issue of *USA Today* proclaimed "Free Trade Link: Yukon to Yucatan"; I have my hair cut at "Shear Impact." (In fact, the punning names of stores is a recent epidemic in America, and beauty shops seem to be quite susceptible; from the Ithaca Yellow Pages, I have gleaned other beauty salon puns: "A Cut Above," "The Cutting Edge," "Hair Express," "Hair Impressions," "Hair it is," "The Hair-Loom," "Hairy Canary Clip Joint," "Shear Country," "Shear Design.") And of course advertising discourse abounds with such puns.

We all know that such language play has entered even the relatively staid context of academic discourse [see, among others, the articles collected in Culler, *On Puns*]: a chapter is titled "Rules and Roles," a talk, "Was Freud a Fraud?" Recent literary theory offers an abundance of examples. Derrida, for instance, has shown that he can soak a *sponge/Ponge/éponge* for levels of meaning that leave the rest of us dazzled [*Signéponge*]. However, this is often seen as a tour de force, not within the grasp of ordinary mortals, just as poets too are often praised for ferreting out potentials in words that none of us suspected were there. Actually, this wizardry is just an extreme example of the word-affinity relations that characterize the lexicons of ordinary speakers and hearers, writers and readers.

While there are many other types of examples of word-affinity relations that I have not discussed,[6] it should be obvious that image and diagrammatic iconicity characterize many words in the vocabulary of English. Thus, the lexicon seems to be directed by the extremely important functional principle that formal recurrences across words are a major clue to sharing of meaning by those words. Moreover, the word-internal structure and cross-word associations thus created allow us to amass a large lexicon and to make sense of it. In fact, it is easy to see why imitation and motivation exist: these iconic relations across words act as a mnemonic; they aid us in learning, memorizing, producing, recognizing, and understanding a vast number of words.

They are also crucial to vocabulary expansion both in children and in adults. Over our lifetimes we are constantly learning new words, we are adding technical jargons to our vocabulary, and we, and our lexicons, are responding to socio-cultural change. Iconicity is one of the founding principles upon which vocabulary expansion resides; the larger our cognitive lexicon grows, the more iconic associations there are and the more we depend on iconicity for giving structure to this vast storehouse of information.

There is much evidence for this in the new words of current-day English. For example, the fairly recently created morpheme *mini-*, meaning "small" [Bolinger, "The Sign Is Not Arbitrary" 238], based on word-affinity relations between *miniature, minimum, minion, minnow, 'minute, min'ute, minutia,* has enjoyed wide popularity in contemporary English, and so we have *mini-bike, mini-conference, mini-skirt, mini-camera, mini-computer,* and so forth, and it has even led to a change in the spelling and pronunciation of *minuscule* to *miniscule*. One could analyze also the technical lexicons of computers. Words like *diskette* (with the morphemic and sound-symbolic *-ette*) and the compound words *hard disk, data-base, e-mail, hardcard, hard copy, software, desktop, laptop*—here one could cite a vast number of words—are all motivated. And what about vocabulary related to political events? For example, the recently coined *-gate* from *Watergate* has combined with both common nouns and proper names to give *Irangate, Iraqgate, Koreagate, Quaylegate, filegate, passportgate,* and *Camillagate* (this last coined in the fall of 1992 in British tabloids on the basis of Camilla, the name of Prince Charles's alleged lover); Daniel Schor said in the fall of 1992 on National Public Radio when speaking of the American presidential election: "Gate-wise speaking, Iraqgate won't hurt Bush as much as Irangate" (notice the use of *-wise,* which has also enjoyed some popularity recently). That is, far from being an inert, static element of language, morphological motivation is functional and dynamic.

This is true not only of so-called ordinary vocabulary, but also—and perhaps even more so—of the specialized lexicons of particular groups, occupations, and discourse domains. Such specialized lexicons arise through oral discourse; speaking and hearing, production and comprehension in a variety of sociocultural domains increase our vocabulary. But, perhaps even more importantly, our lexicon also expands through the texts we read and write. Reading and writing, education in its formal and informal manifestations, and participation in literate and intellectual culture more generally, lead to a larger and richer lexicon.

Moreover, the larger and more complex and the more learnèd the lexical competence is, the more iconicity there is. Much of written vocabulary depends on the types of form-meaning associations we have been discussing, and it often uses roots, prefixes, and suffixes that are part of our learnèd, not our ordinary, vocabulary; witness the Greek and

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6. A full discussion would include blends, synchronic (folk) etymology, acronyms, haplology, back formation, ideophones, clipping, sound-symbolic ablaut, reanalysis, slips of the tongue, ideograms, binomial expressions, taboo words, malaproprisms, and so forth.

Latinate elements of words like *epiphenomenal, anthropomorphism, salinity, archiphoneme,* and so forth. Likewise, more sophisticated texts—in particular highly written texts, like literary ones, but these are not the only ones—depend on a more sophisticated lexical competence both quantitatively and qualitatively, that is, in terms of sheer numbers of words and of the iconic associations on which they are based. It is evident that in our linguistic and literary theories of texts and of lexical competence we must take account of this complexity and of the attendant iconicity. It is striking, for example, that much of literary theory takes as its point of departure the principle of arbitrariness but studies texts that contain so much iconicity.

Function of Sound in Language

All of this has serious repercussions for our understanding of the function of sound in language. In its primordial function, sound is used to differentiate words that are different in meaning [see Jakobson and Waugh]. If that function didn't exist, we wouldn't be able to keep words apart. In this function for differentiation, sound is in principle associated with any difference in meaning, that is, with any meaning whatsoever. But, eventually, of course, sounds have to be associated with some specific meanings in words. And what the evidence from imitation and motivation shows us is that not just any sound is associated with a given meaning; despite pronouncements to the contrary, it makes a difference whether a word begins with one consonant or another, has one vowel or another, employs one suffix or another. Not just differences between words but also identities are crucial to language structure. The function of sound is, first, to establish differences between words and, second, to create a myriad of form-meaning identity associations across words.

But just how important is identity? In a study of words with stressed short-vowel /^/, Householder claims that about 75% of standard English words and almost all dialect words are based on phonesthemes or have their "meaning colored or altered in varying degree by secondary association with phonesthemes" (that is, they belong to word-affinity relations more generally); another 16% "are capable of being associated" with phonesthemes; and only 9% are "clearly and completely arbitrary, their meaning unaffected by the sound" ["On the Problem of Sound and Meaning" 83].

We started out with the claim that almost every word is arbitrary, and now it seems that almost every word is *not* arbitrary. We have been able, I think, to avoid the Scylla of total arbitrariness, but we are now, I'm afraid, perilously close to the Charybdis of excessive iconicity. We have been too eager in our quest for iconicity.

So, let us turn now to the issue of constraints on iconicity—to lexical meaning and ultimately to textual meaning.

2

Constraints on Iconicity

There are several powerful forces that reduce the workings of the isomorphic principle in the lexicon, of which I will explore only one here.

The question we have been asking up to now is: is a particular word, or a part of a word, iconic or not? And the answer we have been searching for is either yes or no. But as we shall now see, this is much too categorical a way of framing the issue. In particular, lexical meaning is much less rigorously structured than the framing of this question would lead us to believe.

Polysemy

We have forgotten a major principle of the lexicon: namely, that the meanings of words are notoriously ill defined, messy, multiple; words typically have a variety of contextual meanings or, to put it another way, words are polysemous. This fact, which is well known to linguists who work on the lexicon, so much so that they deny that there is any unitary meaning to many lexical items [see, for example, Cruse], is also apparent to anyone who uses a good dictionary. *The American Heritage Dictionary,*[7] for example, lists three meanings for *brother,* including the less common uses for a fellow member of a fraternity and for members of men's religious orders. It gives fifteen meanings for *book,* of which its uses in collocations like *he ran the company by the book, the book of life, a book of matches, to be a bookie,* and *to make book in bridge* all attest to the extension of this word beyond the core meaning of "a volume made up of written or printed pages." The historical counterpart of this synchronic polysemy is also well known: namely, that over time words are subject to sometimes wide-ranging semantic development. Words can be extended to new situations and contexts, they can contract in meaning, they can take on figurative meanings, and so on. *Book,* for example, originally came from the word for a kind of tree; then meant the pieces of wood from the tree on which documents were composed; then the written document itself; then any written document; then the current polysemous situation [Jeffers and Lehiste 126].

Such extensions in meaning happen in people's lifetimes. For example, due to computers, we have all had to learn new meanings for *window, macro, file, merge, default, processor, chip,* and so forth. To cite another example, on Super Bowl Sunday, NPR gave a vocabulary lesson to the listeners of Weekend Edition and explained the special meanings of *bomb, bullet, coffin corner, submarine,* and *pull taffy* in football. These extensions and changes of meaning are among the reasons why the lexicon has gained the reputation of being the locus of all that is idiosyncratic and unpredictable in language. But this is going too far. Much of lexical polysemy is at least partially ordered: some meanings are core meanings, while others are special and more peripheral—we saw that with *book* and *brother.* Moreover, the contextual extensions of a word often make sense, especially with a knowledge of the sociocultural history of a language, of the types of figurative extensions of meaning it employs, of the typical collocations in which words find themselves, and so forth. Thus, once the difference in football between a *bomb* (a long pass) and a *bullet* (a short, fast, precisely thrown pass) is explained, the relation of the extension of the meaning in each to their core meanings is clear. However, it would have been hard to predict in advance what those extensions would be. And that's the point: extensions of meaning are most often understandable after the fact, but they are not predictable before the fact—and they may often lead far from the core meaning of a word.

When extensions of meaning go far enough, we assume that there are two distinct words (that is, homonymy): for example, *bank,* as in *grassy bank* and *savings bank* (these words originated from the same source but are treated by *The American Heritage Dictionary* as homonyms). But actually, homonymy is simply the limiting case of extensive and wide-ranging polysemy (either synchronically or diachronically). To put it another way, if we compare the words of a language with respect to the criterion of the relatedness of their contextual meanings, we can say that there is a continuum going from unitary meaning at one end, to ranges of meanings easily related to the unitary meaning, to more and more wide-ranging polysemy, to homonymy at the other end. And it is a

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7. Here, and below, I rely on The American Heritage Dictionary *to exemplify the lexical meanings of words under discussion. This is not because I think that this dictionary—or any other dictionary, for that matter—should supplant good linguistic analyses of lexical meaning (for I don't), but rather because there are no good, thorough linguistic analyses of the words I am discussing.*

notoriously difficult task to make a cut in the continuum such that one could say that there is one word with several meanings on the one side and two words with different meanings on the other. For example, is the body part *ear* the same word as in *ear of corn* or not? The answer is not obvious and not uniform. And this lack of uniformity is linked to the fact that we are dealing with a continuum, not a dichotomous situation.

All of this semantic differentiation and change happens to words that participate in word-affinity relations, even those where morphemes, submorphemes, or phonesthemes are present. That is, even if a word was transparently motivated when it was coined, once it is conventionalized, it can then start to lose whatever iconicity it had. And words that are part of word families may be polysemous in different ways; they do not all necessarily develop in the same way semantically. As the slogan goes, every word has its own history. Now, iconicity helps to slow down the rate of semantic divergence of words. But there are still idiosyncracies. Thus, for example, even so popular a suffix as *-ism* has five different submeanings, according to *The American Heritage Dictionary.* And knowing which *-ism* is used in a particular word still doesn't make the precise meaning of the word completely predictable. For example, although there are many words with *-ism* meaning "a doctrine, theory, system, or principle," such as *socialism, structuralism,* and *capitalism,* the meaning of the word as a whole is still not predictable: *socialism* is not about just any kind of social activity, nor is *structuralism* about just any kind of structure. This is in accord with what has been known about part-whole relations: the whole is not simply the sum of the parts. In this context, it means that the meaning of a word cannot always be predicted from its parts, that is, meaning is not always compositional, despite assumptions to the contrary in linguistics.

When the semantic divergence between words with common morphemes, submorphemes, or phonesthemes goes far enough, terms like lexicalization or lost motivation are used [see, for example, Bauer 42–61]—and examples like *understand* are given, since one can't understand *understand* by parsing it into *under* and *stand. Understand* is said to be lexicalized, or its motivation is said to be lost, and homonymy is claimed between the separate words *under* and *stand* and the seemingly complex word *understand.* A similar example is the compound expression *chicken pox*—an adult might well assume homonymy between this compound and the word *chicken.* But my son Davie said to me one night (when he had the chicken pox), "Mummy, why do they call it chicken pox?" I said, "Why do *you* think they do, Davie?" And he said, "Because there are chickens in it, silly!"

However, there are many words in which lexicalization is partial and thus motivation is also partial: for example, the meanings of the words *socialism* and *structuralism* have some relation to the meaning of their parts; they are at least partially motivated. So they are different from *rainy* on the one hand, which is fully motivated, and from *understand* on the other hand, with no motivation at all. There is a continuum of motivation (compositionality) going from full to various degrees to none at all. That is, while wholes are often not just the sum of their parts, they are related, but not completely or in a predictable manner, to their parts.

What all of this means is that it is difficult if not impossible to find an identity of meaning across words that are part of word-affinity relations. This would seem to deal a death blow to the quest for iconicity. Whereas earlier I cited Householder's claim that the lexicon is perfused with iconicity, now we find that this iconicity is everywhere subject to doubts, stricture, constraints. Are we to abandon our search and declare that it has yielded nothing but false icons?

The problem is that we have been looking for identity of meaning. The question we have been asking is, are the meanings identical or not? And the answer we have gotten from the lexicon is: well, more or less. The meanings of words in word families are more or less identical to each other, not strictly identical. This means that it is not identity of meaning that is relevant, but similarity of meaning. In Peirce's original definition of the icon and in the work of many "iconicity pioneers" [term from Givón, "Iconicity, Isomorphism, and Non-arbitrary Coding in Syntax"191] like Roman Jakobson, Émile Benveniste, and Dwight Bolinger [see works cited], iconicity was defined as a similarity relation. However, most linguists, including those working on lexical meaning and on form-meaning relations between words, have insisted on looking for sameness or identity—and then have been bothered when words that participate in word-affinity relations are not semantically well behaved; that is, they have been frustrated by finding that polysemy is the natural state of the meanings of words.[8]

To a certain extent, work on the lexicon has been led astray by the results of work on grammatical meaning, where identity of meaning is much more apparent: the lexical meanings of *walk* (present tense) and *walked* (past tense), which differ only in grammatical meaning, are substantially alike, and the grammatical meanings of the past tense of *walked* and *dropped* are basically identical. But the lexicon is different: where grammatical meaning is closer to identity, lexical meaning is much further away. Where grammatical paradigms exhibit more regularities of semantic structure across the words of a paradigm, word families and word-affinity relations exhibit all of the characteristics of families and social networks in general: certain similarities of character but not identity, idiosyncratic differences, closer vs. further relationships, stronger and weaker ties, and so forth.

To put it another way, similarity itself is gradient: there is more or less similarity. We have to do with another continuum, going from identity through various degrees of similarity to no similarity at all. Or, if we look at it in terms of lexical relations between words, there is a continuum going from full relatedness (where there is identity of meaning) through various degrees of partial relatedness (where there is similarity of meaning) to no relatedness (no similarity of meaning).

And what does this mean for iconicity? The answer should be obvious: iconicity itself is not an all-or-none; it is a question of degrees and also defines a continuum going from the fully iconic at one end, to the fully noniconic at the other end, with many degrees of iconicity in between. In other words, the question is not, is a particular word or subpart of a word iconic, but rather, how iconic is it—a little, a lot, somewhere in between? There is a clear theoretical conclusion to be drawn here: we will have to abandon the principle of all-or-none, categoriality, either-or that many linguists and literary theorists are so fond of and admit that the lexicon at least—and other areas of language as well—exhibit continua, degrees, both-and.

In fact, it is obvious that the majority of words in the lexicon exhibit partial iconicity. They manifest a delicate balance between full iconicity and total arbitrariness. On the one hand, there is full iconicity: formal associations across words carry strong iconic content and are the basis by which we build larger and more sophisticated lexicons. On the other hand, there is total arbitrariness: the meanings of words have autonomy from their forms and lexical polysemy is a major principle that allows for the creative dynamism of language and lexical meaning. And most words are in between these two extremes.

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8. See Cruse; see also Ruhl, who argues for monosemy but spends many pages discussing the issue of polysemy.

In other words, the continua we have been discussing are the result of the dynamic interplay of two powerful but opposite forces in language—one toward iconicity and the other toward noniconicity.[9] The iconic force leads to a direct and intimate tie between form and meaning, an internal pressure to make sense of the fact that we use form to convey meaning. From this perspective, far from being separate, phonology and semantics are simply two sides of the same coin. As for the lexicon, it is iconicity that, so to speak, keeps lexical meaning in line. Thus, the result of the iconic force for lexical meaning is the tendency towards invariability, homogeneity, unity, determinacy, predictability, precision—all of which are absolutely crucial to the workings of lexical meaning and of language structure more generally. Interestingly enough, it is these traits that current-day linguistics tends to emphasize, all the while assuming that they stem from arbitrariness. But actually, not only are they intertwined with iconicity, they depend crucially on the system(at)ic nature of language, as have seen. That is, contrary to assumptions from Saussure on, system/structure and iconicity (*not* arbitrariness) are inextricably intertwined with each other.

But we know that language is characterized not just by these traits. What then about the noniconic force? More generally, one could say that the noniconic force emphasizes the pure conventionality of the tie between form and meaning, and thus a certain autonomy of each. In this respect, phonology and semantics are somewhat autonomous, and lexical meaning is free to follow its own course. The consequences for lexical meaning are variability, heterogeneity, diversity, indeterminacy, uncertainty, ambiguity—all of which we also know to be inalienable traits of language and without which language could not function. These traits, of course, have been the focus of contemporary literary theory and have been correlated with the separation of meaning and reference and the arbitrariness of the linguistic sign.

The nature of language—the fact that language is the powerful communicative instrument it is—lies in the pushes and pulls of these two opposing forces, in the interplay between iconicity and noniconicity, that is, between invariance and variability, homogeneity and heterogeneity, unity and diversity, and so forth. In other words, the nature of language lies in between linguistic theory and literary theory.

Textual Isomorphism

The forces of iconicity and noniconicity (pure conventionality) are at work at all levels of language, from the smallest units of sound to the largest texts and discourses. So far, we have explored their workings at the level of the word. Let us reflect, in closing, on texts.

In general, linguists have assumed that the principle of compositionality applies at all levels of linguistic structure. Thus, they have claimed, the meaning of a text is a function of the meaning of its parts—meaning is compositional, and compositionality is the reason why a text can be understood. This claim that textual meaning is unitary, determinate, and predictable has rested on texts that do not present major problems of interpretation, that is, texts that are referentially based, that strive for clarity, and that do little to exploit the potentiality of words for contextual polysemy and ambiguity. These texts range from the scientific and journalistic to the legal and didactic to simple narratives to some ordinary conversations—in other words, they are either oral or written, but typically not literary, aesthetic, belletristic, or poetic.

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9. Actually, it is more complex than this, since, as Peirce and Jakobson ["Shifters, Verbal Categories, and Russian Verb" and "Quest for the Essence of Language"] have both shown, the "nonarbitrary" side of language includes not only icons but also indexes (the latter exemplified by deictic categories, shifters). In the discussion that follows, I am assuming that the noniconic is also nonindexical.

But it is exactly the latter types of texts that are little tied to extralinguistic reference. And indeed it is on the basis of such texts that some literary theorists have abandoned entirely the principle of compositionality and have claimed, as I said earlier, that textual meaning is indeterminate and that meaning resides in interpretation, not in texts.

The problem is that each group is looking at the two extremes of the total range of text types. Linguists tend to study those texts that are most heavily influenced by the tendency toward determinacy of meaning, and literary theorists those texts influenced by the tendency toward indeterminacy. And each group claims, implicitly or explicitly, that *their* text type should be the exemplar for textual analysis in general—and for how we understand (or don't understand) each other. But just as lexical meaning is subject to the pushes and pulls of iconicity vs. noniconicity, so texts are subject to the same forces. And this means that we have to do, again, with a series of continua. Just as there is a continuum of compositionality going from full to various degrees to none at all in the lexicon, so text types range from those that are the most compositional to those with only some compositionality to those with none at all.

In other words, texts range from the most referential to the least referential, from the most unitary to the least unitary, from the most determinate to the least determinate, and so forth.[10] This means that there are many texts in between the two extremes—perhaps the majority. In any case, the number of texts with highly determinate meaning is less than many linguists think, and the number of texts with highly indeterminate meaning is less than many literary theorists think. Most texts are related to some smaller or larger number of interpretations—that is, they are polysemic to greater or lesser degrees, just as much of lexical meaning offers smaller or greater ranges of polysemy. But not enough work is being done on these texts. Linguistics and literary theorists alike should be turning their analytic powers to a scrutiny of these intermediate types.

In addition, given the parallelism between lexical meaning and textual meaning, we should be able to relate some of the polysemy of texts to the polysemic potential of the words of the texts. Textual polysemy may in some cases be related, directly and indirectly, to the lexical surface of the text and to the potential for ambiguity and play of meaning that the lexicon affords.

This also has consequences for the poetic function. In our search for the ways in which texts are based on the similarity between form and meaning—that is, the ways in which iconicity is part of the constructional principle of the poetic or literary text—we will have to be more attuned to the complex associative possibilities set up by lexical form and of their extensions and even partial disruptions by lexical meaning. Where the *grammar* of poetry is more fixed, the *lexical meaning* of poetry is less stable—and thus more open to multiplicity of meaning.

* * *

I hope that I have been able to show you why it is time to slay the dragon of arbitrariness and to proclaim, if not the remarriage of form and meaning, then at least their partial reconciliation. Our linguistic and literary work should be based on the fact that there is no form completely without meaning and no meaning completely without form, that the path from a given sound to a given meaning is in some cases quite direct, and that phonological form and textual form are often inextricably tied to semantic interpretation. And whether we study the nature of language in general or the composition of the lexicon

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10. For similar claims, related to Jakobson's metaphor/metonymy distinction, see Lodge.

or the structure of grammar or the principles of interpretation or the qualities of texts, we should all join together in investigating how language, lexicon, grammar, interpretation, and texts are shaped by the delicate balance between two fundamental dynamic forces of language, one toward iconicity and the other toward noniconicity.

WORKS CITED

Adams, Valerie. *An Introduction to Modern English Word Formation.* Longman: London, 1973.

Anttila, Raimo. *Analogy.* The Hague: Mouton, 1977.

Bauer, Laurie. *English Word Formation.* Cambridge: Cambridge UP, 1983.

Benveniste, Émile. "La nature du signe linguistique." *Problèmes de linguistique générale.* Paris: Gallimard, 1939. 1: 49–55.

Bernard, John, and Arthur Delbridge. *Introduction to Linguistics: An Australian Perspective.* Sydney: Prentice-Hall of Australia, 1980.

Bolinger, Dwight. *Forms of English.* Ed. Isamu Abe and Tetsuya Kanekiyo. Cambridge: Harvard UP, 1965.

———. *Meaning and Form.* London: Longman, 1977.

———. "Rime, Assonance, and Morpheme Analysis." *Word* 6 (1950): 117–36. Rpt. *Forms of English* 203–26.

———. "The Sign Is Not Arbitrary." *Boletin del Instituto Caro y Cuervo* 5 (1949): 52–62. Rpt. *Forms of English* 231–39.

———. "Word Affinities." *American Speech* 15 (1940): 62–73. Rpt. *Forms of English* 191–202.

Bolinger, Dwight L., and Donald A. Sears. *Aspects of Language.* 2nd ed. New York: Harcourt Brace Jovanovich, 1975.

Chierchia, Gennaro, and Sally McConnell-Ginet. *Meaning and Grammar: An Introduction to Semantics.* Cambridge: MIT P, 1990..

Cruse, D. A. *Lexical Semantics.* Cambridge: Cambridge UP, 1986.

Culler, Jonathan. *On Deconstruction.* Ithaca, NY: Cornell UP, 1982.

———. *On Puns: The Foundation of Letters.* Oxford: Basil Blackwell, 1988.

———. *Saussure.* 2nd ed. Ithaca, NY: Cornell UP, 1986.

Derrida, Jacques. *Signéponge.* Part 1 in *Francis Ponge: Colloque de Cérisy.* Paris: Union générale d'éditions, 1977. 115–51. Part 2 in *Digraphe* 8 (1976): 17–39.

Givón, Talmy. "Iconicity, Isomorphism, and Non-arbitrary Coding in Syntax." *Iconicity in Syntax.* Ed. John Haiman. Amsterdam: Benjamins, 1985. 187–220.

Haiman, John. *Natural syntax: Iconicity and Erosion.* Cambridge: Cambridge UP, 1985.

Holdcroft, David. *Saussure: Signs, System, and Arbitrariness.* Cambridge: Cambridge UP, 1991.

Householder, Fred. "On the Problem of Sound and Meaning, an English Phonestheme." *Word* 2 (1946): 83–84.

Jakobson, Roman. "Linguistics and Poetics." 1960. Rpt. in *Selected Writings.* Vol. 3: *Poetry of Grammar and Grammar of Poetry* 18–51. The Hague: Mouton, 1981.

———. "Quest for the Essence of Language." 1966. Rpt. in *Selected Writings.* Vol. 2: *Word and Language* 345–59.

———. *Selected Writings.* Vol. 2. *Word and Language.* The Hague: Mouton, 1971.

———. "Shifters, Verbal Categories, and the Russian Verb." 1957. Rpt. in *Selected Writings.* Vol. 2: *Word and Language* 130–47.

Jakobson, Roman, and Linda R. Waugh. *The Sound Shape of Language.* 2nd ed. Berlin: Mouton de Gruyter, 1987.

Jeffers, Robert, and Ilse Lehiste. *Principles and Methods of Historical Linguistics.* Cambridge: MIT P, 1979.

Justice, David. "Iconicity and Association in Phonology, Morphology, and Syntax." *Romance Philology* 33.4 (1980): 480–89.
Lewis, Philip. "The Post-structuralist Condition." *Diacritics* 12 (1982): 2–24.
Lodge, David. *The Modes of Modern Writing: Metaphor, Metonymy, and the Typology of Modern Literature.* Ithaca, NY: Cornell UP, 1977.
Malkiel, Yakov. "English Verbs Ending in (Nasal, r+) Consonant + l." *Edita and inedita 1979–1988.* Vol. 1 of *Diachronic Problems in Phonosymbolism.* Amsterdam: Benjamins, 1990. 179–98.
Marchand, Hans. *The Categories and Types of Present-Day English Word-Formation.* Munich: Beck, 1969.
Nichols, Johanna. "Functional Theories of Grammar." *Annual Review of Anthropology* 13 (1984): 97–117.
Norris, Christopher. *Deconstruction: Theory and Practice.* London: Methuen, 1982.
Nöth, Winfried. *Handbook of Semiotics.* Bloomington: Indiana UP, 1990.
Peirce, Charles S. "Logic As Semiotic: The Theory of Signs." 1902. Rpt. in *Philosophical Writings.* Ed. J. Buchler. New York: Dover, 1955. 98–119.
Pharies, David. *Charles S. Peirce and the Linguistic Sign.* Amsterdam: Benjamins, 1985.
Ruhl, Charles. *On Monosemy.* Albany, NY: SUNY P, 1989.
Saussure, Ferdinand de. *Course in General Linguistics.* New York: McGraw-Hill, 1959.
Waugh, Linda R. "The Poetic Function and the Nature of Language." *Poetics Today* 2.1a (1980): 25–39.
———. "Presidential Address: Let's Take the Con Out of Iconicity: Constraints on Iconicity in the Lexicon." *American Journal of Semiotics* 9 (1992): 7–48.
Waugh, Linda R., and Monique Monville-Burston. "Introduction: The Life, Work and Influence of Roman Jakobson." *On Language.* By Roman Jakobson. Ed. Linda R. Waugh and Monique Monville-Burston. Cambridge: Harvard UP, 1990. 1–45.
Waugh, Linda R., and Madeleine Newfield. "Iconicity in the Lexicon and Its Relevance for a Theory of Morphology." *Iconicity in Syntax.* Ed. Marge Landsberg. Berlin: Mouton de Gruyter, [in press].
Whorf, Benjamin L. *Language, Thought, and Reality.* Ed. John Carroll. Cambridge: MIT P, 1956.