Mimicry in Natural Language⁰

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I. Physical Metaphors

Πολύ δέ μέγιστον τό μεταφορικόν είναι. 'By far the greatest thing is the use of metaphor' — Aristotle, *Poetics*

This is not a paper about mime or vocal impersonation; this is a paper about metaphor. In particular, it is about the metaphors linguists use in talking about language. I will try to characterize some of the axioms which underlie the metaphor systems of much of modern linguistics, which I will call 'Physical Metaphors' for reasons which will become clear shortly, and will provide some different metaphors in linguistics.

In criticizing physical metaphors, I do not wish to be understood as denigrating them. They are powerful metaphors and very satisfying in many ways. Nor do I believe that all modern linguistics uses such metaphors. I do think they are prevalent and need to be supplemented, not just extended. There are some areas of serious concern to linguists in which physical metaphors can do very little good, at least as they are currently used, and it is precisely those areas that need new metaphors.

Linguists certainly do use physical metaphors in talking about language; that fact is unarguable in a technical semantic sense, and is in fact well-known and much discussed, though more in personal communication than citation form. Some recent work, notably Morgan (1975), Reddy (1979), and Lakoff and Johnson (1979), has addressed this matter (among others) and I wish to associate myself and my remarks with this growing tradition of concern for the proper use of metaphor.

ble throughout this paper, and Ann Borkin, than whom no one could have a finer colleague. I would also like to thank my friends and students, who have sufferred through this with me for some time, and whose support and assistance have been invaluable.

Among the many people to whom I owe acknowledgement here (most of whom I suspect would prefer to remain anonymous), I wish to thank most especially Charles Pyle, whose ideas are audi-

In addressing this Society, which has been associated with the history of Generative Linguistics, I am well aware and fully intend that my remarks here will be interpreted within the context Linguistics = Generative Linguistics. There are plenty of other traditions in linguistics, however, and I have tried to frame the discussion in ways generalizable to any attempt to study human language and communication with serious purpose. For example, consider the implications of the physical metaphor of *slot/filler*, a tagmemic staple.

The literal meaning of most of the nouns we linguists use to refer to linguistic entities² is some physical entity; in fact, they are mostly images of artifacts, probably because we think of language as a product of human beings. This artifactual view of language is more limiting than a more natural physical metaphor would be, since the set of human physical artifacts is not a broad sample of the class of physical phenomena. A great many of the nouns we use are count nouns, and mass nouns, like *intonation*, *meaning*, or *function*, usually represent things we can't talk about very well yet; one gets the impression that progress in linguistics is achieved by making mass nouns into count nouns. The verbs we use are all verbs of physical motion, or of position, the adverbials temporal and spatial, all of which imply time and space dimensions.

This is a part of our heritage from language itself; such metaphorization is extremely common, particularly in American English, which after all exists in a highly mechanized, artifactually rich culture. Of course, **we** know these are just metaphors, and we are often careful to warn our readers and students that this is so.

However, this precaution speaks to only the most obvious danger of using metaphors: that of *concretization*, or mistaking the metaphor for reality. The less obvious danger lies in what we do not consider because we can't get it into our metaphor right. In order to make a compelling metaphor, one that illuminates a phenomenon, you are bound by its ground rules, and the more compelling the metaphor, the more the rules bind. Linguists, like other humans, are the prisoners of their metaphors, and have often limited themselves when they need not have done so.

Modern linguistic theory often seems to me to represent language as if it were constructed on some huge assembly line in the mind, turning out complex structures with flags, brackets, moving parts, spinning cycles, many optional features, and an engine that's much too powerful; not unlike an American car. These monstrosities are stuffed with just the right kind of meaning ore, then shuttled, whizzing and chugging, to the receiving department of another talk factory, where the vehicles are disassembled and the ore is carefully inspected, graded, and smelted down into understanding. In this form the metaphor sounds ridiculous, of course, but its basic principles govern a lot of thought and talk abou language.

To turn from this caricature to more reasoned criticism, I present below an incomplete list of axioms of the physical metaphor as used in linguistics. These may be thought of as counterfactual hypotheses which use of the metaphor necessitates. They are the boundary conditions on the metaphor as we use it and it is important to bear in mind that **each of them is false**.

² I use the phrase *linguistic entities* to mean those phenomena which constitute the data of linguistics, their parts, and the abstract entities and relations we invoke to explain them.

Axiom l Law of Completeness.

In the physical metaphor of linguistics, linguistic entities are complete.

We often allow ourselyes (and to the extent we concretize the metaphor, require ourselves) to think of such entities as sentences, phonemes, words, structures, etc., as if they had no temporal extension and existed complete and equally accessible in some 'place'. But it is obvious that a linguistic entity has its only physical extension (if any) in time, not space; language events are produced and interpreted sequentially by complex, diverse, and largely unknown processes, and there is no 'place' in anyone's mind where such entities exist in their pristine, complete state.

Unless of course you're a linguist. What we linguists appear to do is create such a metaphorical space in our minds and then swap stories about it. That this is possible at all is fascinating in the extreme, and a tribute to our powers of constructive memory, imagination, and analysis.³ Our mistake is to believe that because this is possible it represents the way other people use language to think and talk.

Axiom 2 Law of Discrete Presence.

In the physical metaphor, linguistic entities are discrete eleinents which are either totally present or totally absent.

This law addresses two aspects of discreteness that are assumed by our physical metaphors, though not strictly speaking necessary for any physical metaphor. The difference here is because linguists prefer metaphors of physical artifacts to more natural physical images, with the result that we admit only images of discrete elements like *nuts and bolts* instead of more continuous ones like *wind*, *fire*, or *water*. In addition, artifacts are either in one place or another and cannot be present in other than a physical way. One artifact of a given kind is effectively identical to any other of the same kind, so individual differences are ruled out from the start.

The sole natural simile widely used in the physical metaphor is *tree*, but it is clear that this is not used to mean trees that have buds, leaves, and birds' nests, bear fruit and give shade, but rather the aluminum kind you hang things on for special occasions.

The other aspect of discreteness addressed by this law is the idea that 'presence' of a linguistic entity is physical presence; something (e,g, a word, relation, or sound) is either **there** or not **there** in another thing.⁴ (The concept of *in* seems meta-

³ A good discussion of this phenomenon and its implications for the study of language and linguistics is contained in Pyle (1979a), which discusses other topics as well.

⁴ The hold that our discrete physical metaphors have over us is demonstrated well by the silence that has greeted proposals such as Ross's (1972, 1973, 1975) to the effect that nondiscrete degrees of 'nouniness', 'command', etc. must be recognized. We linguists seem much more comfortable with categories that have sharp edges, even when we get cut on them.

phoric as well.) The physicality of the image is undoubtable, and its extension into linguistic reality is dubious at best. Most of our theoretical ingenuity in linguistics goes into inventing new abstract entities that have to be **there** by our theories, and then making up new places for them to be **there** in, when they clearly aren't anywhere at all.⁵

Axioms 3a-d Laws of Contextual Independence.

These exclude from consideration in the physical metaphor a number of types of context, all on the same argument: basically, no room,

Axiom 3a Law of Paralinguistic⁶ Independence.

In the physical metaphor, linguistic entities are independent from paralinguistic and kinesic phenomena.

These phenomena have been conventionally excluded from consideration in linguistics; this is almost always done with considerable regret, since it is obvious that they are significant and interesting, but it is done, And it is done without noticing the loss so much by using a physical metaphor. Paralanguage and kinesics exist in spatial and temporal dimensions, but both spatial and temporal dimensions of the physical metaphor are already used for the purely temporal and organizational dimensions of actual and idealized segment able speech. There isn't any space left for the really spatial aspects of communication, so they're largely ignored.

Axiom 3b Law of Mental Independence.

In the physical metaphor, linguistic entities are independent from mental phenomena,

It has become more and more obvious that all aspects of language have reference to and interact with a vast number of other parts of the human mind, including most obviously emotions, sociocultural affiliations and expectations, behavioral scripts and frames, and beliefs or categorizations about the world in general, We have no way to talk about these things and their relation with language (except rarely and in plain language, e. g., Fillmore's *Deixis Lectures* (1971)), because they have no physical analogs that mesh well with our current metaphors. A common remark of linguists studying such phenomena and discussing such theories in the context of the whole of linguistics is:

(1) I can't see where that fits in.

Once again, see Morgan (1973), especially the paper's title. Here, of course, the physical metaphor is applied metalinguistically, to categorize the components of the grammar as *places* which *contain* the various rule types and elements. We treat our metalanguage the same as our language, just like other humans.

⁶ By this word, I intend to include not only paralanguage proper but also kinesics. I suspect both of these phenomena classes have more to do with each other than either has to do with segmental linguistic phenomena.

I suggest that (1) is exactly correct, in fact analytic, in that the limitations of the visual, spatial, locational, **physical** metaphor used in (1) prevent the speaker from relating the theoretical insights from one metaphor to those of another. I suspect the situation would be different if we used a different metaphor. Suppose we substituted the behavioral metaphor of learning for the visual metaphor in (1); then, whenever a linguist disagreed with another linguist's theory, instead of saying (1) to challenge a point, s/he would have to say:

(2) I can't learn what that means.

The pragmatic effect of linguists' having to confess unteachability in order to argue on these grounds might be beneficial.

Axiom 3c Law of Personal Independence.

In the physical metaphor, linguistic entities are independent from their speakers and listeners.

I am certainly not the first to complain about this, and new traditions in pragmatics, for example, have come from a recognition of this limitation of the metaphor. Yet there has been very little integration of this into the physical metaphor with any success. It is difficult for me to see how we can hope to make progress in understanding our subject matter without some understanding of the people involved in speech events and their feelings, intentions, role repertories, degrees of tolerance, etc. In short, their personalities. I suspect we are not going to be satisfied with our understanding of language until we have access to a decent personality theory as a base; satisfying candidates are few, however, and we will probably have to construct our own, or at least leave room for it in our theories, for there is certainly no room for it in the physical metaphor.

In addition, this law addresses the concept that linguists can play 'objective observer' with regard to the data of our science, an idea that is false in many ways, and which physics, to take just one example, had to dispense with altogether in order to achieve its modern synthesis.

Axiom 3d Law of Textual Independence.

In the physical metaphor, linguistic entities are independent from other linguistic context.

Even if we restrict ourselves to purely linguistic context, in a vastly oversimplified 'sentence-follows-sentence' account, we still cannot talk about texts coher-

⁷ A possible candidate is Kelly's (1955) 'Personal Construct Theory', which, though linguistically and culturally naive in many respects, has many of the properties of a satisfying theory of meaning.

ently in our physical metaphors, since the temporal dimension of the metaphor is preempted by part of our abstract-concrete dimension. Time, as expressed in linguistic usage, is used almost exclusively to refer to direction of derivation, or some other degree of distance from a basic abstract prototype. Use of tense and aspectual markers is consistent with such a metaphorization, as are such terms as *before*, *after*, *early*, *late*, *last*, *first*, etc. Sometimes we use separate still images arranged in order, and sometimes we speed them up and watch them move. Or *raise*, *lower*, *cycle*, *dislocate*, *merge*, *copy*, and *leave traces*. All of these predicates, being verbs of motion, describe actions with temporal extension, though that is of course not the appropriate demetaphorization.

In at least these ways, then, the physical metaphor of linguistics makes linguistic entities independent of their contexts. We are well aware of the results of this.

Axiom 4 Law of Functional Adaptation.

In the physical metaphor, linguistic entities are preadapted to their function.

A basic assumption of such an artifactual metaphor is that the forms, being artifacts, have been manufactured for some conventional purpose and therefore must fulfill it. Since most of our experience points to the extreme rarity of a perfect form/function match, there is something wrong here. The metaphor requires a one-to-one matching of form and function; since it would violate the assumption to consider this the exception rather than the rule, only those rather rigidly conventionalized types of function that we can expect to hew fairly close to their formal expectations are considered as 'function'. Everything else is more or less ignored, though again there is the distinct feeling of wistfulness.

The problem for the physical metaphor is to physicalize **function**, which, like meaning, can vary in unpredictable, context-dependent ways. The most common solution to this problem is the idea that words 'contain' meaning in some way, and anything that helps the listener unpack them in any way is 'function'. This is what Reddy (1979) calls the *conduit metaphor*, and it is false and inappropriate in some

⁸ But cf Rhodes and Tomlin (1979) for more realistic and productive ways to do text studies, outside a purely physical metaphor.

⁹ I have in mind here, for example, the prototypic association of interrogative syntactic form and intonation with the conversational function of signalling a desire for information. Even when the formal and functional levels are clearly and consistently distinguished, which is rare enough, there is almost always a presupposition present in analyses of these phenomena to the effect that the prototype function of an utterrance type **must be** the actual function of every real speech act it represents. On this view, deviations from the prototype call for explanation. It would be more reasonable, I believe, to presume that form usage **has reference to** prototype function conventions, but need not necessarily (or even usually) **have** such function, in the sense of being intended or interpreted in the conventional way. Cf. Pyle (1975) for elucidation.

very pernicious ways, though it is the most common metaphor in the metalanguage of English.

Axiom 5 Law of Universality.

In the physical metaphor, linguistic entities are universal for speakers of a given language.

The basic idea here is that linguistic competence is shared in detail within a speech community, ¹⁰ and individual differences are irrelevant, or at least not as important by orders of magnitude as the cultural differences that include different languages. This proceeds because of a curious inference that, since performance is shared, indeed negotiated, among the members of a speech community, so is competence. But there are two senses of *competence* being used here. In the abstract sense in which *competence* is merely the name of a purely explanatory principle, the one that is to explain how people can communicate with language, it is certainly true that competence is shared. ¹¹ It is equally true that this abstract sense is vacuous, having the same explanatory force as the celebrated account of opium's soporific effect as being due to the presence in it of a 'dormitive principle'.

In the more empirical sense in which *competence* is used to mean something like our individual knowledge of (our own) language, this is almost certainly false. This law leads to such tropes as our frequent use of generics like *The Speaker* and his younger relation, *The Child*.

This axiom is in fact a restatement of part of the counterfactual assumption underlying Chomsky's (1965) 'ideal speaker-listener in a homogeneous speech community', one of the great mythic prototypes of modern social science, ranking with the Entrepreneur in economics and the Subject in psychology. The undeniable theme of 'interchangeable parts' is certainly consistent with the physical artifact metaphor, though (again) is by no means necessary.

It also leads to such enterprises as the present volume, and the Parasession it reports, with their implication that there are (or can be) such things waiting to be discovered as a periodic table of linguistic elements. There aren't any, though, and it is folly to seek them. This is because language and linguistic entities are not physical, and do not support the kind of epistemology needed for a belief in the one right theory. There isn't any one right theory any more than there is one right metaphor. They all have their problems.

I come to praise metaphors, however, not to bury them. We have to use metaphors; we have no choice. What we should do is use them with some understanding of their limits and applicability. If it appears (as it does) that there are areas of con-

¹⁰ Cf. McCawley (1979) for further discussion of the unobviousness of this belief.

¹¹ Cf. Bateson (1972) for more discussion of explanatory principles, in particular *instinct*.

cern that cannot be treated satisfactorily, then we should look for other metaphors to complement the ones we already have.

There are many such available. For example, consider the social metaphors consistently employed in Relational Grammar: *promotion, demotion, hierarchy, sponsorship, succession*, kinship terms like *daughter* and *in-law, relation* itself in its primary social sense, and of course *upstairs/downstairs*. These are what one might call 'second-person' metaphors, having to do with social roles and scripts, by contrast with the 'third-person-inanimate' tropes that characterize the physical metaphors of linguistics. There are many such categories of metaphors, all useable, not all appropriate; and there are many ways of categorizing metaphors, but that is a subject well beyond the scope of this paper.

I will propose a 'third-person-animate' metaphor here; I would invite your consideration of the biological sciences, their subject matters and their theories, as a fertile source of linguistic metaphors. Biology is, after all, as prestigious as physics, as scientific, and as interesting. And biological metaphors avoid many of the restrictive difficulties inherent in the physical metaphor.

II. Biological Metaphors

'The whole of Nature is a metaphor of the human mind.'

— Emerson, Language

The idea that language is alive is anything but new. We canonize it when we speak, as we do, of *living* languages, of the phenomena of language *birth*, *growth*, *change*, and *death*, of verbal *aggression*, of *mother* and *daughter* languages, and of languages that are *genetically* related.¹³

Serious scientists have espoused this idea as a governing principle for research and understanding. Schleicher, for example, in the middle of the last century, and the Geneva school of linguists following Saussure, used biological metaphors. ¹⁴ They were, of course, limited by the varieties of biological knowledge available to them at the time. I think it is time for another look. ¹⁵

Linguistics, like other social sciences, has borrowed more than metaphors from academic physics, and references to the resemblances are commonplace. There are other models of science, however.

This is a good example of a bad metaphor. The lack of 'scare quotes' around *genetic* conveys the impression that there is a science of linguistic genetics that the word refers to. Nothing could be further from the truth, of course.

¹⁴ I am grateful to Victor Yngve and Gillian Sankoff for providing me with these examples.

¹⁵ For unfortunate reasons, the linguistic concept of 'language evolution' is firmly pre-Darwinian, and the concept of 'genetic relation' is pre-Mendelian. They are both more appropriately de-

A priori, linguistic phenomena and biological phenomena have a number of properties in common which are mostly not shared with physical or artifactual phenomena. These show up in the theories and working practices of the people who study biology and physics; biological theories tend to use far less mathematics than physical theories do, for example. The notorious inability of linguists to adopt and use productively highly mathematized models on a large scale, as physics has done, has often been seen as a serious failing of our field. This is a value judgement to which I do not subscribe, but if it is a fault, we share it with biology, and for similar reasons: our subject matters are similarly intractable, having to do with living organisms.

Some other similarities are:

- (a) Both linguistic phenomena and biological phenomena, and our understandings of them, are sloppy. People studying either have to contend with a vast amount of individual differences whose significance is not clear; in fact, it is the significance of just this kind of data that is often at issue in the respective sciences. The notion of 'individual differences' in physics, by way of comparison, is highly controversial and offers no hope of resolving linguists' problems in this area.
- (b) Biological and linguistic phenomena are both systematic and interactional. Biological entities live in homeostatic ecosystems; our human ecosystems are enriched with language, and it is no wonder we often think of language communities as ecologies. They **are** ecologies, and even if we consider only the linguistic aspects, we can expect significant resemblances if not identities in the structures of the systems. ¹⁶ This systematic account is not easily transferred from physics, however.
- (c) They are dynamic and adaptive. Both linguistic and biological entities and types of entity change with time and adapt to circumstances as they occur. Some succeed, some don't. Some are mistakes, some are dominant, some

scribed as *Linnaean*. We should be able to do better. One way might be to look seriously at the concepts of 'natural selection' and 'selectional advantage', which are cornerstones of modern evolutionary theory.

The metaphor of sociolinguistic variants (or any other cultural bits and pieces of variation) as viruses, moving epedemiologically through a community of hosts, infecting some and not others, spreading or dying out, eventually habituating to the genetic material of the hosts and becoming incorporated in it, has some attractions, for example. It identifies genetics metaphorically with syntax and phonology, which I believe is apt in a number of ways. It also points out a danger inherent in making syntax and phonology core disciplines and attempting to analyze everything in terms of them. A biologist cannot predict characteristics of an organism in any detail from only genetic information; still less can s/he describe behavior of the organism, and even less likely the niche the organism occupies from genetic data alone, however complete. This seems to be the task some linguists are setting for us, however.

recessive, some are highly specialized, and some aren't what they used to be.

- (d) They must be analyzed contextually, in terms of *form* and *function*. ¹⁷ Biological *form* is important however, not so much in the taxonomically descriptive sense of the physical metaphor, but in the senses both of explicating the internal system of the organism and of explicating its interaction with the environment, which is not a bad definition of *function*.
- (e) They are both relativistic. The nature of observed linguistic or biological phenomena depends completely on who (or what) is doing the observing, and for what purpose. The objective observer's position is no more available in biology than in physics, but in a biological metaphor this is more apparent and less avoidable than in physical metaphors. In the next section I will examine one such relativistic metaphor, the biological concept of *mimicry*, for signs of linguistic usefulness.

Theoretical linguists are in no position to deny that language has biological implications. If so, it behooves us to learn to think and talk about language in ways that may lead to some insight about these implications.

III. Mimicry

'What you see is what you get.'

— Flip Wilson

I will offer several relatively minor areas in linguistics in which I believe the metaphor of mimicry is apt; my belief is that it is widely applicable elsewhere as well. 18

The first example is a modest and obscure syntactic rule conspiracy, (3)-(5):

- (3) Leave the room (and shut the door).
- (4) Buy ten and save.
- (5) Win up to \$1000.

¹⁷ Systematic morphology is very much a part of biological science. *Systematic*, however, can refer to systems theory as well as taxonomy.

Though *mimicry* can be highly valuable to linguistics (being a semiotic trope borrowed in the first place by biologists, it's a good word to reclaim), I do not intend to try to "solve everything" with it here, or even do much more than indicate a few problems it might be useful for. In biology, it is only one among many significant theoretical entities, with perhaps the same degree of importance and intrinsic interest that (say) vowel harmony has for linguists. Such a scientific enterprise can only be properly appreciated (and used) in the context of its own discipline and its associations there. If mimicry can help provide satisfying accounts, so much the better; but the main points I wish to make here do not have to do with biological mimicry as such, nor even with biology, but with metaphors.

which I first brought to this Society's attention four years ago (Lawler (1975). There are at least three forms involved; imperatives proper like (3), which can be conjoined, and two types of pseudoimperatives, both derivable from *if-then* conditional expressions. (4) illustrates two types of verb phrase: the first, *buy ten*, sounds like an imperative but represents the predication in the *if-*clause of (6). The second, *save*, represents the predication in the *then-*clause in (6):

(6) If you buy ten X, you will save (money).

These must be derived by different rules and it is not necessary always to represent the entire expression, since (5) represents only the *then*-predication of (7):

(7) If you do S, you may win up to \$1000. (The modals involved in (4)-(7) are puzzling as usual.)

In a way, consideration of this conspiracy raises the question of what we mean by 'imperative'. Using a straightforward derivational account in which 'imperative' refers to a particular type of derivation, (4) and (5) are not imperatives. Using a functionally based definition involving conveyed meaning and similarities of form, they are imperative. What this means is that the pseudoimperatives resemble true imperatives much too closely to ascribe to coincidence, but also differ from them in significant ways that are in some sense criterial.

A linguist who discovers such a conspiracy is not unlike a biologist who discovers a number of essentially unrelated species of insect which resemble one another very closely. The difference is that the biologist has a convenient metaphor at hand: **mimicry**.

Similarity of form can only be selected for if there is some advantage in resemblances. And resemblances exist only in the perceptions of observers who (or which) notice them and base behavior on them. In a biosystem, the observers are the other organisms in the environment; predators are an example.

If a bird with experience of the unpalatability of Monarch butterflies learns to avoid them by recognizing their appearance, it will also tend to avoid the unrelated and palatable Viceroy, which resembles the Monarch closely. This obviously leads to selection for Viceroys that resemble the predators' prototypes of Monarchs most

Most linguistics raises such questions often, but they are rarely addressed directly, and almost never answered satisfactorily. These are questions about reference in our metalanguage, and they are not easy to resolve. A frequent solution has been to lower the criterial threshhold, producing such metaphors as 'adjectives as verbs', 'auxiliaries as main verbs', etc. Few of these have much staying power outside theories made to fit these criteria, since adjectives are not verbs, nor auxiliaries main verbs, any more than semivowels are vowels (which is to say, they share some similarities, but are not identical). A phonology that insisted that semivowels were the same as vowels would be in serious trouble.

closely. This is defensive mimicry, a common type, but not the one best suited to a discussion of rule conspiracies.

A different type is attractive mimicry, often employed by predators and parasites to get close to their prey and hosts. Numerous species of trematodes, for example, have larval forms which resemble small crustacean or mosquito larvae with the result that fish swallow them for food²⁰.

To quote Wickler (1968) on the subject:

"Research on these parasites is made much easier when one recognizes that these larval stages often mimic the food organisms of their respective hosts. In fact, by observing the parasite, one can predict which animal is likely to eat it, and therefore guess at the identity of the host." (p. 133, caption for fig. 28)²¹

In the case of (3)-(5), the host is the imperative processor. That is, that element in a theory of linguistic form recognition which has the function of deciding that a given perceived utterrance has the form of an imperative (probably by matching it sequentially with a form prototype). This type of theoretical entity is often called a 'mechanism'. I suggest it makes just as much (or as little) sense to call it an 'organism'.

The advantage of being recognized (if only incompletely or temporarily) by this mechanism (or organism) lies in the mechanisms (or organisms) aroused by the decision that the utterrance has imperative form. These have to do with social roles of dominance and submission, social space and familiarity, and the habitual emotional responses they evoke. These correspond in part with what we call 'conveyed force' (though I will call it 'aroused force' here and avoid the conduit metaphor), and in part to what Borkin (1979) calls 'grammatical meaning', that is, the contribution to the meaning of an utterrance that is made by its form and the conventional deviation of that form from the prototype.²³

Parasite species are highly host-specific. A species will commonly be able to live in only one species of host; such specialized adaptations are common in biology.

Wickler (1968) is a translation from German, and I have here corrected one lexical typo.

The original reads: "...one can predict which animal it is likely to eat", which makes no sense in context.

²² Or a 'demon', a trope common to the academic field of Artificial Intelligence. Cf. Selfridge (1959).

²³ 'Grammatical meaning' is, like Ross's (1977) 'phonological meaning', a logically different type of signification, which cannot be composed easily with 'literal meaning'. Both can be analyzed as effects produced by (grammatical or phonological) processor routines, with their characteristic (and highly personal) associations. Both involve comparison to prototypes and significant deviations from them.

Such forms as (4)-(5) clearly are used to intrude and impose (though with no guarantee of success) in such contexts as advertising. Whether the listener reacts to the language the way the advertiser wishes or not, it is evident that the listener recognizes the intrusion, at least in form. This provides a selectional advantage for mimic forms like (4)-(5); hence it is natural to find such resemblances, and the extra rules necessary in the derivations of (4)-(5) are the linguistic equivalent of the extra genetic coding that a mimic has to develop in order to enjoy the benefits of a mimic's niche.

- (8)-(12) present a congeries of form types widely represented in the literature. In (8)-(10), various subject mimicry processes can be observed. The dummy *there* in (8), for example, is snatched up by the subject organism, a demanding but stupid beast in English, but not by the more discerning and patient topic beast, which bides its time.
 - (8) There is a unicorn in the garden,
 - (9) Lenin seems to have been dead for some time.
 - (10) Lenin looks like he's been dead for some time,
- In (9) and (10) the topic beast pounces on *Lenin*, the first referential NP, arousing hypotheses about the type of experience of and information about Lenin that leads to the conclusions framed by the matrix predicates (which themselves indicate the nature of these hypotheses). This topical relevance is most apparent in (10), where the interaction of the topic *Lenin* and the physical perception predicate *look like* produces a distinct impression of a conclusion based on physical inspection of Lenin's body; this is, of course, merely further evidence of the power of the physical metaphor to structure our understandings of language.²⁴
 - (11)-(12), cases of Equi-NP-Deletion and Raising,
 - (11) I asked Bill to come.
 - (12) I wanted Bill to come.

(at least putatively) are both sentences in which the NP *Bill* bears grammatical relations of subject in the subordinate clause, and (some kind of) object in the matrix clause. It is obvious that the position:of *Bill* between the two predicates, appropriately positioned as the object of the first and the subject of the last, facilitates this identification. The arguments over Equi and Raising all have to do with the particular nature of the object relation in the matrix clause, which is not particularly important syntactically, since that is a function of verb subcategorization, like the fine structure of any verb-object relation (e.g, *eat/food, try/DO, ask/question*, etc.).

What is important syntactically is that the position of *Bill* will arouse both the object and subject organisms, for whatever reasons it appears in that position. This could be analyzed as a case of *Müllerian* mimicry, in which several species which

²⁴ Cf. Rogers (1972) for further discussion of sentences like (10).

share a common advantageous trait which involves communication (e.g, several types of unpalatable insects having the same shape and coloration patterns) resemble each other. The advantage is obvious; the form facilitates processing.

Finally, I will broach the subject of 'indirectness' here. As Pyle has pointed out (1974), this is a misnomer. Any form of speech, by comparison with direct action, is an indirect way to accomplish a goal. Once again, it is a physical metaphor, that of 'conveyed force', that has misled us. If the force is conveyed with the utterrance, where is it? Where does it come from? And when a force is conveyed that isn't supposed to be conveyed, where did it come from?

In a framework motivated by Pyle's analysis, the questions we should be asking are: what is the conventional force of the form of the 'indirect' utterrance, and what is its strategic value? In (13), for example,

(13) Did you remember to pick up your room?

an ostensible information question might be said to convey a (conditional) order. The divergence of form and function from their conventional match makes it difficult to give an account of understanding. The strategic significance of the form of (13), however, lies in the fact that it is **not** an imperative, and hence does not arouse the unpleasant associations of that form.

These associations, with their intrusive and aggressive nature, can interfere with the personal and conventional relations that allow communication in the first place. There is a great deal of survival value in relation maintenance; without it we cannot share contexts, and hence cannot communicate.²⁵ The type of syntactic euphemism illustrated in (13)-(15) is an

- (14) Would you mind taking off your shoes at the door?
- (15) Wow, it's eleven already. [to suggest leaving]

example of defensive mimicry; the forms do not arouse the imperative organism, but are processed without so much imposition. Like all euphemisms, of course, these have a short life; as soon as the strategy is detected, the imperative beast becomes suspicious.

Another type of indirectness is irony (cf Roy 1978 for more discussion on irony). One of the many mysteries of this topic is the common use of ostensible compliments to insult, with the corresponding rarity of the use of ostensible insults to compliment. (16), for example,

- (16) Bill is a real genius. (as insult)
- (17) Bill is a real bastard. (?as compliment)

²⁵ Cf. Goffman (1979) for a statement ot similar problems and discussion.

is easily usable in many contexts as an insult, and there are many conventional clues which make the intent unambiguous, though (17) is an extremely odd and unlikely type of compliment.

Some clue (conventional, contextual, or inferential) makes the compliment organism gag on (16), however, which arouses the associations of an insult. (17) arouses the insult beast directly, and it does not let go of its food without a struggle. (17) can only be used effectively as a compliment in a context in which the expectation of insult is minimal, as in a close friendship, or one in which it is conventionally displaced, as in a locker room. That is, (17) has a chance to count as a compliment only when the insult beast is not alert or when it is in a cage.

Everything said here can be translated back into appropriate (if not exclusively linguistic) physical metaphors involving such ideas as *processing*, *recognition*, *parsing*, *algorithms*, *memory lookup*, and *associational chaining*, among others. Which metaphors we use is largely dependent on the degree to which they can contribute to our satisfaction with the explanations they provide, and that is personal. What I suggest is that different metaphors raise and answer different questions, many of which are important.

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