make an utterance more expressive is to make it more appropriate to the message, more iconic, in other words.

Even if phonetic iconism is acknowledged as a constitutive factor in the function of expressive sub-codes, the structural linguist will want to know whether to admit phonetic iconism to his ontology is to open the door to factors external to language, to make linguistics the study of external reality and violate its self-definition as the study of what is internally systematic in language. Will the linguist who allows for the place of phonetic iconism in language have to go out into the street and investigate the noise that a bus makes? Of course, the answer is no, for phonetic icons are made with reference to the phonemic systems of la langue.

Two kinds of phonetic icon-making may be discussed here. Both kinds are based on metaphors which the phonemic system provides. The first is related to the work on synaesthesia which was briefly surveyed above; it has also been discussed by Jakobson in lectures, but not, to the present writer's knowledge, explicitly with respect to his conception of subcodes. In this process acoustic oppositions from which the phonemic system of a language is constructed serve as metaphors for semantic oppositions. A familiar example is the opposition between the word "tiny" and its expressive variant "teeny". "Teeny" is iconic with respect to "tiny" by the exploitation of the opposition /iy/ vs. /ay/ (high vs. low, or more precisely, high tonality vs. neutral tonality) as a metaphor for "very small" vs. "small." If "tiny" and "teeny" are merely regarded as lexical entries in a single code, there is no way of expressing in a grammatical description the fact that the difference between them involves iconism, for, of

course, the opposition /a/ vs. /i/ is not necessarily iconic. For example, the words "trap" and "trip" have no iconic relation. Again, the pair "top" vs. "tip", is ~~xxx~~, in ordinary utterances, like trap/trip, not a pair at all, but two separate lexical entries. It is quite conceivable, however, that in an expressive context the difference between the vowels of "top" and "tip" can be taken as a metaphor for the difference between their meanings (cf. "the very tippy-top" -- "tip" means the same thing as "top", but littler and more precise). These limited examples are intended merely to indicate that the oppositions of a given phonemic system can be the basis of a phonetic icon used for expressive purposes; that this process can be used to create expressive variants for words already in existence (e.g., "teeny" for "tiny") and also to highlight in an expressive context the difference between two words already contained within the principal code. The examples given do not go beyond the findings of psychologists on synaesthesia; they merely relate these findings to the study of linguistic structure. A more extensive study of iconism in particular languages would be needed to show how other phonemic oppositions and combinations of oppositions are used iconically in expressive subcodes. (The opposition discussed here is probably common to all languages and is probably used in pretty much the same way linguistically and extra-linguistically by all human beings and not just the speakers of a particular language; hence the need for detailed studies which would show that icons of this sort -- i.e., based on the acoustic oppositions of phonemic structures -- are made differently by speakers of different languages according to the phonological oppositions available to them.)

Another process of iconism utilizes not the acoustic properties of the oppositions within a phonemic system, but the hierarchy of oppositions itself as a basis for metaphor. (This process does not seem to have been discussed elsewhere.) Within a phonemic system, certain combinations of features are marked with respect to other combinations. Thus a compact nasal consonant is marked with respect to a diffuse one; strident stops and mellow fricatives are marked with respect to mellow stops and strident fricatives, respectively. Such statements about the hierarchy within a phonemic structure are based partly on a consideration of the acoustic properties of phonemes, on, for example, answers to the question, what is the optimal consonant for purposes of communication (as in Preliminaries to Speech Analysis); partly they are based on typological surveys of the phonological systems of the world's languages and the induction of universal laws of implication, e.g. that if a language has a compact nasal consonant, it must have a diffuse one (cf. essays by Jakobson and Ferguson in Universals of Language). Perhaps such statements can also be based on considerations of the frequency or freedom with which certain phonemes of a system are used in comparison with other phonemes; that is, a marked phoneme is less frequently used or more restricted as to the positions which it can hold in the structure of a morpheme or word. In any case, there seems to be some inverse correlation between how heavily marked a phoneme is (in acoustic or typological terms) and how frequently and freely it is used, as study of a work such as Trnka's A Phonological Analysis of Present-Day Standard English will show. What is interesting for the purposes of this paper is that phonemes or groups of phonemes marked by infrequency or lack of

freedom seem to lend themselves especially to iconic processes; that is, in expressive contexts, the special or marked nature of certain phonemes can be used to make them iconic with respect to special or marked concepts. Thus, a phoneme (or group of phonemes) can be made to serve as an icon not only when its acoustic opposition to other phonemes can be seen to resemble the opposition between two signata, but also when its marked nature with respect to other unmarked phonemes can be taken as a metaphor for the marked nature of one signatum with respect to other non-marked signata.

To demonstrate the truth of the thesis just presented is not easy; The difficulty is in isolating marked phonemes which are the effective agents in the expressivity of words. It seems more likely that, for the most part, it is marked combinations of phonemes which make words expressive, but how to measure the markedness of phonemic combinations is problematic. A famous example of a single phoneme which is restricted in frequency and in the positions it can hold, and which is thereby capable of being associated with a certain marked signification, is the English phoneme /ð/, which appears in initial position only at the beginning of words which can, as a group, be roughly characterized as pronominal. This fact -- the association of a phoneme marked within the phonemic system with a special morphological category -- illustrates the kind of iconic process in question, but it is iconism within the grammar of a language rather than as a constitutive factor of an expressive sub-code. The question of how morphological hierarchy may be reinforced by the use of icons based on phonological hierarchy will not

In this paper it is the use of icons taken from the phonological hierarchy to reinforce, for expressive purposes, semantic oppositions which is of interest.

be discussed here. The example of English /ð/ was adduced to show abstractly how the iconic process in question works. What follows is a rather feeble attempt to show how this process works in expressive contexts.

If all monomorphemic, monosyllabic English words which end with a single consonant (excluding nasals, liquids, and all consonant clusters) are arranged in rhyming lists (i.e., rap, tap, strap, etc. in one list, bid kid, etc, in another), it will be seen that some lists are much longer than others and that some slots aren't filled at all (e.g., there are no monosyllabic words containing the vowel found in the word "pet" which end with /θ/ or /s/). Where few or no entries appear in a slot, it seem legitimate to say that the consonant in question is marked for that position. (Actually, it is probably the combination of vowel and consonant which is marked). In fact, the consonants which most often appear as marked in this sort of survey tend to be the ones which would be considered to be marked from an examination of a feature matrix depicting the phonological system of English.

If the lists of rhyming words are further examined, it will appear that at least two of the lists are dominated by a groups of words which bear a strong semantic relation to one another (e.g., the group ending in"-ash", 2/3 of which involve some sort of violent movement; the group ending in "-udge", almost all of which express a "stickiness" of matter, movement or feeling -- trudge, sludge, drudge, budge, grudge, smudge, and, perhaps, in the American sense, fudge). The O.E.D. reveals that most of these words are analogic creations or deformations. Their expressive grouping is not accidental; it is the result of expressive

sub-code creations and deformations tending toward greater iconism. The interesting thing is that both groups have final consonants (/š/ and /ǰ/) which must be considered as marked if the criterion for markedness is infrequency of usage (in final position of English monosyllabic words, /š/ and/ǰ/ outrank only /θ/, /ð/, and /ž/ in frequency of usage) and perhaps also if the criterion is more general (acoustic or typological). The fact that a certain marked phoneme occurs rarely in a certain position has made it possible for its presence in that position to be associated with a certain marked meaning; its special nature with respect to the phonology of the language serves as a metaphor for the special nature of the meaning in question.

Two kinds of phonetics icons have been discussed -- one well defined from the evidence of psychologists, the other more or less tentative, but perhaps capable of definition -- which can be studied with respect to the phonemic system of a language. (In view of this, perhaps such icons should be called phonological rather than phonetic icons.) The study of phonetic icons as constitutive factors in the formation of expressive sub-codes provides also a check of the sort which is needed if the work of the morpheme analysts cited above is to be useful in this connection; it can perhaps be determined which phonetic icons are actually part of an expressive subcode, and which, like /b/ as an icon for "container", are icons only to the linguist flipping through a dictionary.

Almost no single idea presented in this paper is original. It has been the purpose of this paper to try to understand how various notions bearing on the iconic aspects of language are related; also to try and point out the need to study iconism in language with respect to what is

systematic in language. This paper has confined itself to phonetic iconism (and within the subject of phonetic iconism, to metaphors between phonological and semantic oppositions, exluding metaphors between phonological and morphological oppositions). It is also possible to talk, as Jakobson has done, of morphological or syntactic iconism, e.g., the use, in an expressive context, of an unusual or variant order of words to make an utterance more diagrammatic with respect to its meaning.

At the beginning of this paper, two assertions of the non-arbitrariness of the linguistic sign were mentioned. They were declared to be independent of each other, and so they are, if language is seen as static. But if language is seen as dynamic (in a synchronic or diachronic study), then the relation between the two assertions emerges. For phonology, the first assertion means that a phoneme of a language is not varied or changed arbitrarily, but only with respect to the already existing phonemic system. The second assertion provides one of the reasons (expressivity through iconism) why variation or change occurs at all; but variations or changes for the sake of iconism are also made with respect to the phonemic system, are, in fact, based upon the oppositions and the hierarchy of oppositions of this system.

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