PHONETICS, PHONOLOGY, AND THE NATURAL OF IT.

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ABSTRACT

This paper discusses the recent debate in phonology between formally-oriented and functionally-oriented approaches (generative phonology and natural phonology). It claims that both views have inspiring insights and drawbacks, pleading for a substantial neutrality of phoneticians with respect to the phonological research. In particular, it is stressed that phonology is a fundamentally abstract discipline: its proper goal is to avoid arbitrariness, rather than attain concreteness, according to the now prevailing (and much too ambiguous) wave. However, it is to be hoped that some recent developments both in phonology and phonetics might provide the ground for a fruitful convergence of these disciplines, within their own domains.

Yet, Bloomfield's approach does not represent the most extreme case of abstraction in structuralist phonology: for that matter, just think of such scholars as Hjelmslev or Z. Harris. Needless to say, not all structuralist phonologists show this extreme neglect for the phonetic substance: Jakobson is a very clear example of a phonologist with a sharp interest in the physical support of language. However, in some sense it can be said that GP yielded a substantial change in the orientation of phonological studies. Even the well-known Hallean paradox, concerning the absence of a level of autonomous phonemics in Russian (and in phonological theory), can be understood in this light: the intermediate level of autonomous phonemics is rejected in as much as it does not add any relevant piece of information on the link between the abstract morphophonemic level and the concrete allophonic level.

Curiously enough, then, the kind of objections which NP raises against GP are partly of the same kind as the objections which GP raised against structuralist phonology: namely, the undue neglect of the phonetic substance. There is ground to say, therefore, that GP and NP appear to be very different, or quite similar, to each other, according to the distance from which they are looked at. If compared to the most abstract among the structuralist approaches, they both look quite concrete: if compared to each other, NP looks much more substance-oriented than GP.

In what follows, I shall try to consider the topic of naturalness, and the confrontation of GP and NP, from the viewpoint of phonetics. Two questions are of particular interest in this context:

1) Who did prevail in the recent theoretical debate
   (the formally-oriented, or the substance-oriented)?
2) Is there any special lesson to be learned for phoneticians?

The answers to these questions will be tentatively given in sections 3 and 4 below; in section 2, I shall be concerned again with the topic of concreteness/functionality, claiming that too much of an emphasis has been put on this concept in recent works.

2. There is no doubt that the discussions which took place on the matter of naturalness were in the whole very instructive and fruitful. For one thing, it appears to me that these discussions forced the adhe-
In conclusion, the Turkish case provides a good example of the need to distinguish carefully between the term ‘functional’. A similar example is provided by Steenberger’s /12/ analysis of the non-compositional feature ‘functional’ as defining a property towards abstract analyses, provided, however, that the word ‘concreteness’ is not used to capture the essence of the difference between a word being a member of the verb category and a word being a member of the noun category. The latter definition is not only more natural but also more consistent with the fact that all words are either concretes or abstractions. It is not necessary to define concreteness as being an inherent property of words; rather, it is sufficient to define it as a property that is characteristic of words as a whole.

Let us now try to consider the first of the two proposals announced above. From what I said in the previous section, it is clear that the functional-oriented stream of phonology has not been very successful in dealing with the Theoretical Debate of the last decade. Indeed, as was noted, before we have such a pervasive acceptance of the concreteness notion. However, things are not as neat as they might appear. The overall acceptance of the notion of ‘concreteness’ is just the most recent manifestation of a general trend that has been widely discussed in the literature. While generalization has always been regarded as the most highly valued, and treated as a natural solution. The search for a set of distinctive features has largely motivated by the goal of capturing as many natural classes of examples as possible. Nevertheless, this categorization is not directly based on the assumption that some abstract positions, nor even the step of excluding its own results on the basis of fairly excellent in this field. Thus, the following linguistic theory, in a sense, does not result from a strong (i.e., functional) category, nor even from a strong functional category, nor even from a strong functional category.

The proposal is that what is involved here is a category of abstractness rather than a category of concreteness. And not only is that the case, but it is also precisely the tendency to make a distinction between abstract and concrete categories. Given this, we can see why a category of abstractness is more likely to be involved in this discussion.

In the case of the Turkish case, Zisserman’s solution is the simple one of using a new level of hierarchy. In the analysis of the French cases, the concept of concreteness (as a verb) is used, which corresponds to the idea that a verb can be a concrete or an abstract category, depending on whether it is used as a verb or as a noun. However, Zisserman’s proposal is not entirely accepted in the case of the Turkish case. Zisserman’s solution is less satisfactory in this case, as it is more abstract, as the more abstract approach consisting in postulating a lexically independent morpheme category such as ‘abstract’ and ‘concrete’ is not acceptable in the case of the Turkish case. In order to define concreteness, the Turkish cases are characterized by a new level of hierarchy, where the Turkish cases are defined as a concrete or an abstract category, depending on whether they are used as a verb or as a noun.

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A single line of derivation. And one could even say that the theoretical assumptions defended by GP enabled it to provide several inspiring and fully developed pieces of description of the phonological systems of many different languages.

As I said, there does not seem to be a neutral or pretheoretical point of view about these matters. Indeed, even if we were to consider the problem from the point of view of phonetics, it would appear that either answer is perfectly legitimate. The only question is why a phonetician should be bothered by the possibility that the phonological component is structured in such a way as to contain a fairly abstract set of rules, whereas, provided they do not suffer from arbitrariness, and provided of course that the output coincides with what is actually pronounced by the native speaker.

This last consideration might remind us of the position of those phonologists (adhering to GP) who defended the claim of the unattractiveness of phonology, in sharp contrast to NF (cf., e.g., Anderson /1/ or Hellberg /1/). However, I do not regard these as critical of the phonetically harmless to NF. Indeed, NF never claimed that every phonological process is natural, for one must take into consideration the often unpredictable development of human languages, subject to the contribution of many diverse factors, such as contact with other languages, or morphological patterning. In fact, a great deal of the sound structure of any language is under a control of morphology, rather than in phonology, and this has to be recognized as any phonological theory. This is not to deny, though, the importance of Anderson's contribution, and of those who made the same move. On the contrary, their warning seems to us that any attempt to squash phonology onto phonetics is bound to fail; and it is a fact that NF, admittedly, has but a weaker explanatory power: it does not tell us why a given phonological process occurs, rather it tells us whether that process is to be expected in phonetic grounds. Also, it is a fact that the first attempt to develop a comprehensive framework to motivate morphophonological patterns along the lines of NF in Dressler's /4/, which appeared long after the birth of NF.

4. With this caveat in mind, we can finally address the second question put forth in section 1. Let us recapitulate three of the observations which were advanced so far:

(i) phonology is an abstract domain of research;
(ii) in order to avoid the risk of arbitrariness in the analysis, some restriction must be imposed, the most reasonable one being a restriction of phatic naturalness (i.e. plausibility);
(iii) however, the pursuit of naturalness must not be carried out at the expense of possibility (1).

Now, at first glance, one might advance the view that the general trend of contemporary phonology towards the naturalness/concreteness issue goes very much in the same direction (despite the equivocal evidence); in section 1 towards which phonetics is intrinsically oriented. I would like to claim, though, that this is not the case. Indeed, phonetics is hardly conceivable; furthermore, it is a fact that a purely abstract (which means essentially arbitrary) phonology would be of no help to phonetic sciences. Nevertheless, I do not think that phoneticians (putting aside personal opinions) can reasonably claim to be be of no help to phonetic sciences. Nevertheless, I do not think that phoneticians (putting aside personal opinions) can reasonably claim to be.

The basic on-tradition of phonology to phonetics is to be sought in its propensity to provide theories which can be checked by being tested experimentally, or inspire the conception of new ideas about the production of speech. In this respect, a formally-minded phonology might even provide better material for phonetic speculation, just because of its more provocative character. The search for phonetic motivation for abstract phonological processes is, after all, the fundamental job of the phonetician. Indeed, from this point of view, non-linear phonologies might easily prove to be more challenging than any version of NF. An interesting example of this can be found in Clements /3/, who explicitly tries to develop a phonetically motivated theory of autosegmental phonology, where each articulatory dimension corresponds to an individual autosegment, all leading to a hierarchic conception of the feature content of phonemes. It is envisageable that this view of the phoneme will induce a new series of research in phonetics, just as the traditional view of the phoneme as an internally structured matrix of distinctive features inspired important works. And it might be that something of this sort will eventually be triggered by a specific branch of non-linear phonology I alluded to above, namely CV-phonology, although the experimental verification carried out by Steenbergen & McWhinney /1/ is far from successful. A much more successful one is Hayes' /4/ account of which accumulates empirical evidence (in terms of reactions to a number of phonological processes) for the existence of multiple vs. non-phonological matrices, which are distinctively different in the various languages) however, Hayes' approach is not experimental.

It is quite instructive, in any case, to see how often CV-phonologists try to provide a physical basis to the abstract entities they postulate: indeed, this is another way of saying that the concrete tree is now prevailing in phonological research (but recall the criticism put forth in section 2 above). CV phonologists for the concrete tree is now prevailing in phonological research (but recall the criticism put forth in section 2 above). CV phonologists for the concrete tree is now prevailing in phonological research (but recall the criticism put forth in section 2 above). CV phonologists for the concrete tree is now prevailing in phonological research (but recall the criticism put forth in section 2 above). CV phonologists for the concrete tree is now prevailing in phonological research (but recall the criticism put forth in section 2 above). CV phonologists for the concrete tree is now prevailing in phonological research (but recall the criticism put forth in section 2 above). 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