Introduction

Mark Aronoff & Livio Gaeta

The study of morphological productivity has been a furtive activity among linguists since its inception, for good reason. While the modern academic field of linguistics has always thrived on methods and phenomena that are discrete, all-or-none, rather than continuous, more-or-less, productivity is inherently continuous, and thus fundamentally incompatible with the basic methods of the field.

The simplest mechanism for dealing with phenomena that are incompatible with societal norms is denial. In linguistics, the denial of variable productivity has taken several forms. The most obvious of these has been to take advantage of the distinction between linguistic competence (grammar) and linguistic performance (language use) by declaring that productivity and other gradient matters are part of performance rather than part of competence. But when two matters are truly independent, then we predict that they should have no effect on one another. Especially if language itself (grammar) is conceptually prior to its use, then there should be no feedback from use to language. If we find feedback from productivity to grammar, then either grammar and use are not separable (the more radical conclusion) or (the more conservative conclusion) productivity is in fact not a matter of use and hence grammar includes at least some variable phenomena. But it has been shown time and again that differences in productivity are indeed reflected directly as differences in both meaning and form: the individual pieces of more productive processes are more easily identifiable both phonologically and semantically than those of less productive processes, all of which makes it difficult to deny that productivity is linguistic.

In order to isolate differences in productivity from other factors, we must find sets of what we call rivals, morphological processes that have the same function and differ primarily in productivity (The fact that such sets are quite easy to find is in and of itself a striking indicator that these sets must be serving some purpose.). The best-known example set of rival morphological processes is that comprising the three English suffixes -ness, -ity, and -th. Of the three, -ness is the most productive overall and is therefore often termed the general...
default, while -th is so unproductive that we might be tempted to dismiss it from consideration though, as we will show shortly, it is unwise to do so.

What is most remarkable about the first two suffixes is that they permit the formation of pairs of word tokens that differ precisely in the two suffixes: productivity and productiveness, for example. Let us call these forms Xity and Xness. It has been shown that, in general, for the set of all pairs xity and xness (where x is an adjective), there are more words of the form xness and, for any given pair xity and xness, the meaning of the latter is more directly predictable from the meaning of x. Also, given a large enough corpus, we will encounter more words of the form xness occurring only once in the corpus than words of the form xity. Finally, native speakers of English are more likely to accept a word of the form xness than one of the form xity and will do so more quickly. These and other findings point to the conclusion that -ness is more productive than -ity.

For a linguist raised on the all or none, it is very tempting to try to encode the difference between a more and a less productive process in absolute terms as one between a productive and an unproductive process, but the case at hand shows this strategy to be ill-advised. First, there is the problem of -th, which truly is unproductive. If we don't want to relegate -ity to the same status, then we have to define some status intermediate between productive and unproductive, which raises suspicions about our whole attempt to reduce the continuous to the discrete. Second, it turns out that -ity is not always less productive than -ness. Although -ness is the default process for forming abstract nouns from adjectives in English, after certain suffixes, notably the productive Latinate suffixes -al and -able or -ible, -ity is more productive, according to the criteria noted above. Thus, if we take the adjective computable, formed from compute, and want to further form an abstract noun from this adjective, we will almost certainly form computability instead of computableness. Similarly for other productively formed words ending in -able. Only if the base -able word is itself not productively derived can -ness ever be the preferred suffix, as it is, for example, with comfortable, which is not transparently relate to the verb comfort.

To return to our main point, if -ity is sometimes more productive than -ness, then it will not do to simply call -ity unproductive and -ness productive, since the relative ranking of the two sometimes goes one way and sometimes the other. But once we acknowledge that productivity can be gradient, then these facts are no longer puzzling.

More radically, it may even be useful to abandon the notion that
the two suffixes are rivals for the same slot, a notion that is rooted in
the Saussurean doctrine that language must always consist of oppo-
sitions (which is also most compatible with the realizational frame-
work that has dominated most approaches to inflection in the last
decade). Instead, we can view each of these suffixes as a separate
item, a lexeme of sorts, whose productivity varies depending on its
morphological environment, but entirely independently of what we
had previously treated as its rival. If -ness is a default, that is
because it happens to be productive when there is no specific morphol-
ogical environment. On such a view, two suffixes are rivals only sec-
ondarily, in those environments where both reach a sufficient level of
productivity to clash with one another.

But if we allow the continuous view to intrude to the point that
each morphological process may vary in productivity all by itself
along a completely continuous scale, are we not abandoning the
Saussurean enterprise entirely? This same question emerged over
thirty years ago, with the advent of William Labov’s variable rule.
One of us remembers simply refusing as a graduate student to admit
the possibility of such a concept, which has now also emerged in opti-
mality theory as the variably weighted constraint. We must under-
stand, though, that what varies continuously is not the rule or pro-
cess or constraint, but rather the probability of its application. In
general, we may still maintain the position that linguistic entities are
defined in terms of discrete oppositions, but that their contextual dis-
tribution is determined probabilistically. The acknowledgment of
probabilistic generalizations thus does no more harm to the discrete
aspects of language than statistical mechanics does to those aspects of
physics.

Once we admit that productivity is both part of language and
probabilistic in nature, then we must also admit new methods to the
study of language, some of which are admirably applied in the arti-
cles in this volumes. One can also hope that these methods will be
extendible to other aspects of language. Time will tell. In any case,
the study of productivity proves once again that when we overcome
denial or taboo, we learn that what we have feared so long is not rea-
lly frightening, indeed that it can lead to greater pleasure and knowl-
edge. As the articles in this volume all show, the acknowledgment of
the probabilistic nature of morphological productivity leads not into
perdition, but rather into a greater understanding of the wonders of
language. And that, after all, is what linguistics is about.
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