ON PHONICALLY BASED ANALOGY*

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Abstract

In this paper I examine the role sound alone can play as the basis for analogical connections among forms, as opposed to more conventionally discussed factors such as paradigmatic structure, grammatical category, or meaning. Examples are presented here, mainly from English, that show sound effects in analogy at various levels of linguistic analysis, including phonetics, morphology, syntax, semantics, and the lexicon.

1 Introduction

Analogy, understood here in a broad sense to refer to any change in a given form due to the influence of another form, has a venerable history of study within linguistics, dating back to the Greek and Roman grammarians and their interest in the relationship between analogy and the origin of words and the origin of language itself. It is not surprising, therefore, that various textbooks on historical linguistics, perhaps most notably Anttila 1972/1989, have made clear the prominent role that analogy plays in the understanding of

* The material in this contribution is drawn from a presentation I have made in numerous venues since 2001 under various titles — too many to list — but beginning when I was a fellow at the Research Centre for Linguistic Typology at La Trobe University in July and August of 2001, at the kind invitation of R. M. W. Dixon and Alexandra Aikhenvald. I gratefully acknowledge the invaluable support of my residence there to this work, and thank the various audiences over the past few years who have contributed important insights to my thinking on the examples discussed herein.
language change. Anttila’s work, elaborated upon in Anttila 1977, established (perhaps, re-established) the semiotic underpinnings of analogical change.¹

Still, even with so much attention to the topic, questions remain about analogy. One such question, given that analogy depends on a connection being made between two forms (the influencer and the influencee, so to speak), is just what sorts of connections can serve as the basis for analogical pressures and ultimately for analogical re-formations.

In this brief piece, I present a number of examples I have collected over the years that address this key question by demonstrating that one type of linkage between forms that must be recognized is a purely phonic one, based on sound alone. This is so even though sound is not generally thought of as a basis for analogical connections; most discussions of analogy in historical linguistics textbooks focus only on grammatical connections between forms, e.g. forms that are in the same paradigm (traditional "leveling" or "internal analogy") or forms that are members of the same grammatical category ("form class analogy" or "external analogy").

The general neglect² of a phonic basis for analogy is perhaps somewhat surprising, given that a phonic basis can be found in other aspects of language use. For instance, sound is critical in many types of language play, among them counting rhymes, such as *eeny, meeny, miny, mo* with its assonance and alliteration. Moreover, sound plays an important role, beyond simple rhyming patterns, in various sorts of literary expression; for instance, Miller 1982 has demonstrated complex phonic echoing within lines in Homeric epics, Watkins 1995 has shown the importance of phonic devices linked to thematic parallels throughout several ancient Indo-European poetic traditions, and Dawson 2005 draws attention to the effects of homoioteleuton, a phonically based poetic (and rhetorical) device, in the selection of certain dual and locative allomorphs in Vedic Sanskrit.³ Further, even within recognized types of analogy, a phonic basis often is lurking. For instance, classic cases of ‘contamination’, which in one sense can be viewed as leveling within a ‘semantic paradigm’, can involve a phonic link. A relevant example is Late Latin *grevis*, which is generally believed to have developed from Classical Latin *gravis* “heavy” through ‘contamination’ with its semantic opposite *levis* “light”, plus some influence likely from the semantically related (as a dimension adjective) *brevis* “short; brief”; however, even if the semantic links were important here — and I have no doubt that they were — there is a phonic link as well with *gravis/grevis, levis, brevis*, in

¹ Note also the excellent bibliography on analogy, Anttila & Brewer 1977, and various recent handbook-style treatments of analogy, especially Anttila 2003 and Hock 2003.
² There are exceptions; Vennemann 1972, for instance, with its discussion of ‘phonetic analogy’, clearly emphasizes that the notion of analogy must be extended to include connections made at the level of sound and not of grammar proper. Claims concerning the purely grammatical basis of analogy are to be found in work done within the framework of Optimality Theory, on ‘correspondence theory’, in that the typical basis for correspondence relations is grammatical outputs, forms being considered by the evaluation mechanism of the grammar.
³ Relevant here too is what Hock and Joseph (1996: 293), drawing on the fine work of Samuels 1972, call ‘phonesthesmatheic attraction’ to describe cases where sound symbolic elements attract other forms into taking on some aspect of their shape (as with early Modern English *sacke* “sink, droop” turning into *sag* through the influence of other words in [-æg] with meanings pertaining to “slow, tiring, tedious action”); since sound symbols can potentially be considered morphemic in nature, the influence in such cases is not just phonic but involves some semantic basis as well.
that they all share the phoneme sequence -VOWEL–vis (of which the –vi- can be considered a shared stem-forming morpheme).

2 Case Studies in Phonically Based Analogy

The examples presented here range over changes in pronunciation (2.1-2.5), changes in meaning (2.6-2.8), including an example from language contact/bilingualism, changes in lexicon and morphology (2.9-2.10), and changes in syntax (2.11-2.12). In many, perhaps most, of these cases, it is not possible to demonstrate conclusively that sound alone is responsible for the change (though 2.5 comes close), but the aggregate effect of so many examples in which sound seems to have been a relevant dimension to the analogical linkage, I would claim, is to show that a phonic basis for analogy is a distinct possibility that cannot simply be dismissed and thus must be taken into consideration whenever analogy is invoked.

All of the forms cited here are ones that I have heard over the past 30 or so years of collecting interesting examples of language change in action. Although I cannot give precise information about the speakers or the circumstances under which the form was uttered, I vouch for the accuracy of my noting of the forms and note that none is based on a unique instance, and some may even represent longer-standing variation that has been maintained. In each case, I present the facts along with my interpretation of a phonic basis for the analogy, offered without an extensive justification at this stage, in hopes of sparking the necessary weighing of alternative interpretations. Also, where the examples provide the basis for some observations of a more general kind about the nature of analogy, some further comments are included.

2.1 Modern English <memento>

A common pronunciation for the word memento “a reminder of the past” in modern American English is [momento] with [o] in the first syllable instead of the ‘correct’, i.e. historically prior and otherwise expected (note the spelling, for instance) mid-vowel [e]. No similar change is observed in the word pimento nor, perhaps more importantly since it involves the same morpheme, in memorial, suggesting that the change in memento cannot be a regular sound change affecting [e] or [I] between labials, for instance. Presumably, the [o] is based on the word moment, which is strongly linked phonically with memento due to their sharing the onset of mVm and to their both having the sequence –nt- following later in the word. Admittedly, there is also a weak semantic link via the phrase of great moment and the adjective momentous, both of which mean “memorable” to some extent. More interestingly, one effect of the phonic analogy that leads to [momento] is a severing — or at least weakening — of the once-phonetically compatible linkage between memento and memorial and other derivatives, or to put it in a different way, the

4 Note that changes in pronunciation are not the same as sound change, as they may have a variety of causes, including nonphonetic ones, and they need not be regular; I take regularity and purely phonetic conditioning to be the hallmarks of sound change in the strict sense, what may be called ‘Neogrammariann sound change’ or ‘sound change proper’ (see Joseph 2008 and Anderson, Dawson, and Joseph 2010: 267 on this latter term).

5 Such is the case with 2.6 (flaunt vs. flout), as Henning Andersen (personal communication, 5 October 2004) has brought to my attention (and cf. the OED’s citation of flaunt in the sense of ‘flout’ from as early as 1923); so also with 2.3 (nuclear) and 2.11 (the as far as construction), and possibly others.
morphemic linkage with *memorial, remember*, etc. was not strong enough to counteract the effect of the phonic linkage with *moment*.

2.2 Modern English <consonantal>

The adjective associated with the noun *consonant is consonantal*, meaning “having to do with a consonant”, and while it is generally pronounced, as would be expected from the spelling, [kənsənəntəl], there are speakers, such as myself, who regularly say instead [kənsənəntəl]. The source of this innovative pronunciation is obscure, to be sure, but it is presumably based on near-rhyme *continental*; there is here some morphological link in that both *consonantal and continental* are denominal adjectives in –al, but the main connection between the two is sound-based, via shared onset, shared syllable-count, and shared syllable structure. Moreover, as with *grevis* discussed above, even a morphemic link gives a phonic link, here with respect to the final element –al.

2.3 Modern American English <nuclear>

One relevant case that has gotten a fair bit of play over the years in the popular press due to its being, it seems, the pronunciation of choice among American presidents, including Dwight D. Eisenhower, Jimmy Carter, and George W. Bush, is the adjective *nuclear* “having to do with a nucleus” pronounced as [nukyələr], for etymologically correct [nukliər]. Here the influence seems to be the class of adjectives like *popular, particular, insular*, etc., with *nuclear* in essence ‘assimilating’ to, i.e. being attracted into, the class of adjectives in –lar. However, even if the end-point is a morphological type with a suffixal –lar, the starting point has to be the phonic form, with no strong morphemic basis. That is, even though *nucleus* has an –l in it, its –l has a different placement and morphemic status from that seen in *people/populace, particle*, etc., i.e. in the base words for *popular, particular, etc.* The phonic form that gives a starting point for the attraction is ...lər in both the attractor and attractee, discontinuous in the case of *nuclear* (thus ...l...ər), and the end result is ...(yu)lər in both.

2.4 Modern American English <extraterrestrial>

The adjective *extraterrestrial* “from outer space” is innovatively pronounced by some speakers as ending in [...]stiyəl as opposed to the etymologically correct [...]striyəl]; the basis here seems to be attraction to, that is to say influence from, *celestial* ‘heavenly’, with the phonic link being the shared sounds [–ɛst...iyəl], though admittedly there is a semantic connection as well between these words.

2.5 Modern American English <academia>

One particularly intriguing case is the pronunciation of *academia* as [ækədəjmiə] (at least in American English) as opposed to the more usual [ækədɪjmıə]. In talking about this case over the years, in classes or in presentations, I have been told that it is a pseudo-

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6 Dr. Tom Stewart (personal communication, Spring 2001) has told me that the noun *nucleus* can be heard as [nukjulas], and I have personally verified that since. Though this could be the basis for the adjectival pronunciation discussed here, I am inclined to think — since there is no obvious (to me) basis for [nukjulas] in and of itself — that the noun here is a back-formation derived from the innovative pronunciation of the adjective.
learnedism, affecting a Latin-like style of pronunciation or an Italian- or a Spanish-like one, but that ignores the basic point of why this word out of other possible words would have been affected, and why that particular affectation as opposed to other possible alterations occurred with this word. That is, there are other learned words that do not undergo a similar fate, such as anemia, for which there is no variant [ənɛmjə]. Or even epidemiology, with the same surrounding environment as academia (i.e., with d and m flanking the affected vowel), for which there is no [ɛpɪdɛmi...] Nor can influence from a morphologically or semantically related word be responsible; in fact, one does hear on occasion [əkədəmiə], based on the pronunciation of academic, but there is no obviously related word with [-ej-]. But when one looks to less obvious (but, I would argue, no less relevant) forms, a solution awaits; thus, I suggest that this innovative pronunciation of academia is based on the influence of macadamia (nut) where the basis for the connection is purely phonic in nature – the relevant phonic links are the large number of shared segments in the same order, in particular, [əkədəmiə] and the shared rhythmic stress pattern. This influence seems to be felt even though there is no semantic connection whatsoever; phonetic form alone seems to matter here.

2.6 American English <flaunt>

The verb flaunt, canonically having the meaning “show off; display ostentatiously”, can now be used as well quite commonly (though prescriptively ‘incorrectly’) in meaning of “show contempt for; scorn”. This innovative meaning is exactly the meaning of flout, which, not coincidentally I would argue, is phonically similar to flaunt in that both share [flənt]. Thus, with this innovative meaning, flaunt has assimilated in meaning to flout, where the link between the two, the basis for the analogical influence of flout over flaunt, is a shared aspect of their phonic shape.

2.7 American English <diffident>

Somewhat similar to flaunt is the situation with diffident ‘shy, lacking in self-confidence”, in that it is now used by some speakers in the meaning of “having no interest in or concern for”. Presumably what has happened here is that diffident has been ‘attracted’ by the phonically similar indifferent, which has that very meaning; crucial here to the attraction is the fact that the two words share the syllable [...dif...]), which is

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7 My good friend and many-time collaborator Richard Janda and I independently came up with this idea about the source of the innovative pronunciation of academia, at some point in the mid-to-late 1980s, and we have each since used it in classes and in presentations. My including it here in print is with Rich’s permission, and in fact, I must acknowledge his input through enlightening discussion we have had on this example, including the particular point about anemia; I have benefited greatly too from the many general discussions Rich and I have had over the years concerning not just academia but the whole overall line of reasoning adopted herein as well.

8 Henning Andersen (personal communication, 5 October 2004) tells me that the word schizophrenia, widely pronounced as ending in [...ijnia], can be heard also as ending in [...ejnia], suggesting that there may indeed be a ‘learnèd word’ pronunciation coming to be associated with [e] in certain items. I am inclined however to think of possible influence from semantically (and somewhat phonically) connected mania in this case, though the nature of this sort of variation in general is such that one cannot rule out any of the possible pressures.

9 One is inevitably led to make a quip about academics being nuts, and indeed, I even own a T-shirt, a gift from a former student, Dr. Halyna Sydorenko of Toronto, that says “Academia Nut”. Such a connection seems unlikely to have played a role here, however. (To see a photo of me in the shirt, go to http://osu.academia.edu/BrianDJoseph.)
stressed in each, as well as having the same end segments and, except for the prefix *in-*,
the same rhythmic structure.

2.8 American Norwegian <brand>

The same effect as that seen in 2.6 and 2.7 can be observed in language contact, where
the ‘attraction’ takes place across languages whose speakers are in contact and are bilingual. In particular, Haugen 1969 has noted what he calls ‘homophonous extensions’,
exemplified by American Norwegian *brand*, which has the meaning “bran”, as opposed
to the meaning “fire” in Standard Norwegian, due, in his account, to the influence of
American English *bran*. Haugen’s use of the descriptor ‘homophonous’ signals his
recognition of the relevance of the phonic link between the attractor and the attractee.

2.9 American English <as of yet>

Although meaning can be affected by phonically based analogical attraction, as the
examples in 2.6-2.8 show, the results of such analogical pressure need not always make
sense. Rather, it can effect changes in the form alone even if aspects of the meaning are
altered in unusual ways. A case in point is the expression *as of yet*, which seems to be an
innovative crossing, a contamination that is, between two phrases, *as yet* and *as of now*,
that were already present in the language. The emergence of *as of yet* means that either *as yet* has taken on *of* due to influence from *as of now*, or else *as of* has taken on *yet* as a
possible complement due to influence from *as yet*. In either case, there is a shared phonic
link through the word *as*, but there is as well a semantic link in that both are time
expressions. Nonetheless, along with the analogical assimilation that leads one of these
expressions in the direction of the other with regard to form, there is either a complication
of or a shift in the semantics of the relevant pieces.

In particular, in the phrase *as of X*, the complement *X* generally has a definite and
fixed time reference of some sort (e.g. *as of December*, *as of now*, *as of 3:33PM*, etc.); however, in the innovative *as of yet*, the complement has a very different kind of time
reference, certainly not anything that could be characterized as definite in any sense, and
thus a complication. Alternatively, one could say that the meaning of *yet* has shifted to
accommodate its use in a new expression or that the requirements of *as of* have changed
so as to allow a referentially vague term like *yet* as a complement. Either way there is a
change beyond the new form, and the analogy leading to *as of yet*, with its phonic basis,
is in large part responsible.

2.10 Latin <queō, nequeō>

The Latin verbs *queō* “I am able” and *nequeō* “I am not able” may well show
morphological developments that under one account of their etymology would be a case
of phonically based analogy. The standard etymology\(^\text{10}\) treats *nequeō* as the older form,
deriving from *neque* “and not” plus *eō* “go”, originally in an impersonal passive
formation *nequitur* “it does not go”, with *queō* then a back formation created by slicing
off the clear negative morpheme *ne*-.. This suggestion fits the facts formally and may well
be right, but it is not necessarily the most satisfying possibility on the semantic side. As
an alternative, one might look to a different root as underlying these verbs, in particular

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\(^\text{10}\) See Ernout & Meillet (1939: s.v.).
Proto-Indo-European *kʷey- “make, do” (as seen in Greek poiēō), so that the sense “be unable” would stem from “not to be done” (that is, “not doable”). While admittedly speculative (as is often the case with root etymologizing), in that case, these verbs would show ‘assimilation’ in their inflection to the form of eō “I go”, in the following ways: from a preform 1PL.PRES *kʷey-o-mos, one would expect either Latin queumus* (with the phonetic development of *-eyo- seen in *ey-ont- “going” => eunt-) or quēmus* (with the analogical development seen in forms like monēmus “we warn”). Instead what occurs for these verbs is (ne)quēmus, with the same root form as īmus “we go”, from *ey-mos. Similarly, the infinitive is (ne)quīre, just like īre “to go”, even though the expected outcome would be something like (ne)quère*. This cannot be proven conclusively, and it may well be that Ernout and Meillet are right in linking these verbs etymologically with eō from the start, but if the semantic connection is considered suspect, so that an alternative etymology is sought, then the later issue of how (ne)quēō came to be linked with eō would have to be based not on their semantics but on the fact that they rhyme. That is, what would link the verbs, in this interpretation, and make the analogical influence possible, therefore, would be a phonetic connection.

2.11 English <as far as…>

An example involving phonetic analogy that affects syntax can be seen in the changes discussed by Rickford et al. 1995 with regard to the English construction beginning with as far as and signalling a focalized element. In particular, they note that a clear old construction in Modern English is that illustrated in (1), in which following the focalized element preceded by as far as, there is a verbal coda, usually be concerned though others such as go can also be found:

(1)  a. As far as John is concerned, forget about him!
    b. As far as John goes, forget about him!

In addition to this construction, there is another one, which Rickford et al. quite appropriately take to be innovative, in which as far as occurs but the verbal coda is lacking, as in (2):

(2) As far as John, forget about him!

Their main concern is the spread of the innovative construction in the past 200 years and especially in the later half of the 20th century, but they discuss various possible explanations for the appearance of the innovative pattern in the first place. One that they consider to be possible, but which in my view they pass over a bit too hastily (p. 115), is that given by Faris 1962 concerning possible involvement of another focalizing construction with as for, as in (3), which has no verbal coda:

(3)  a. As for John, forget about him!
    b. *As for John is concerned, forget about him!

The absence of the verbal coda in the as for construction would provide a model for its analogical absence in the as far as construction. But what is the basis for a connection between the two constructions? They are functionally linked, of course, in that both mark focused elements, but alongside this functional connection, there is another that cannot be ruled out, namely what Faris may have been hinting at when he referred to the influence
of ‘the closely resembling as for’ (p. 238): a phonic link. That is, one could claim that as for provided a suitable model for as far as based on the shared phonic form between the two of as and f-V-r. In this way, the innovative verbless construction would be a contamination or crossing (as seen above), an analogical creation with a phonic basis.

2.12 American English <being that>

My final example also is a case of syntax being affected by a phonically based analogy, and is quite parallel to the as far as example in 2.11. In this instance, the two older constructions that play a role, in my account, are the subordinate clauses (underlined) exemplified in (4):

(4)  
   a. Seeing that John is here, we can start.  
   b. It being the case that John is here, we can start.

and the innovative construction is that illustrated in (5):

(5)  
   Being that John is here, we can start.

All of these represent ways of stating the circumstances under which the action of the main clause occurs, (4a) with a gerund (or participle) that ostensibly is linked to the main clause subject and (4b) with an absolute construction containing an expletive it serving as subject to being. In the case of (5), there is as well a ‘dangling’ participle, in that being is not linked to any main clause argument, but also the syntactic anomaly of the suppression of the expletive subject of being, even though English in general is not a pro-Drop language. How did the innovative construction in (5) arise? It is my contention that it is the result of a crossing of the two older constructions seen in (4), where the connection between the two is on the one hand functionally based in that both indicate attendant circumstances, but further, that it is aided by the phonic link between the two as well, essentially the rhyming of seeing with being, and thus due to the same sort of pressures that gave rise to the innovative as far as construction, and indeed the other innovative forms throughout section 2.

3 Conclusion

There is more that can be said about these examples and their collective effect. For instance, in some cases, the analogy results in a new form that is far from regular or simplified, far from ‘optimal’, as with the being that construction in 2.12, with its odd suppression of a pronoun that runs counter to otherwise quite general English subject requirements, or as of yet with its odd semantics or selectional anomaly. The suggestion that these anomalies emerge by analogical pressures means that analogy cannot be taken as an optimizing or regularizing force per se, except perhaps when applied to individual cases; that is, rather than leading to system-wide regularization and simplification (“system optimization” in the sense of Kiparsky 2000), analogy can introduce

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11 Admittedly, most treatments of pro-Drop refer to the suppression of subject pronouns in finite clauses (as in Modern Greek τρέχω “I am-running” (literally, “am-running”). However, English has the free suppression of subject pronouns only in imperatives, and gerund/participial forms normally lack a subject only under circumstances of control from a main clause nominal (as in (4a)). Thus the absence of it here is innovative from a syntactic point of view.
complication into the system – the regularization would seem to be just on a very localized basis (in the sense of Joseph & Janda 1988), in that, as here, there is an ‘inner logic’, as it were, to the creation of as of yet because of the presence of as yet and as of now, at least in terms of its surface form; so also with being that.\(^\text{12}\)

Finally, it must be emphasized that even though phonic effects, based on these examples, seem to be capable of playing an important role in establishing analogical links among forms, it is not the case that phonic effects hold sway every time one of these forms is uttered. Rather, as with any change, once a new form takes hold, the path by which it arrived at that particular shape is largely irrelevant. For instance, even though the currently widespread American English pronunciation of often with medial –t- has its origins in a spelling-based pronunciation, it is not the case that every time it is uttered now, speakers have the spelled form in mind inducing them into pronouncing the –t-; rather for most such speakers, often is simply learned with a t and thus always pronounced that way. So too in the examples discussed here: it is not the case that every innovative utterance of academia has a macadamia lurking behind it, so to speak. However, as the need to separate the impetus of an innovation from its spread is necessary in most accounts of language change in general, this aspect of the discussion merely places these examples in conformity with what is known about language change more generally.

References

Faris, Paul. 1962. ‘As far as halfbacks, we’re all right’. American Speech 37.236-38.

\(^{12}\) This line of reasoning is pursued further in Joseph 2012.


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