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Multiple sources
and multiple causes multiply explored*

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Multiple sources abound in language, at all levels of linguistic analysis (phonology, syntax, semantics, etc.), and in a range of historical pursuits, including etymology and variationist investigations. From a methodological standpoint, moreover, recognizing multiple sources is often good historical linguistic practice (contrary to inclinations towards neat and elegant solutions that satisfy Occam's Razor). That is, if we can identify multiple pressures on some part of a language system, it cannot always readily be excluded that some or even all might have played a role in shaping a particular development; if all of the factors represent reasonable pressures that speakers could have been aware of and influenced by, excluding any could simply be arbitrary. In this paper, accordingly, I survey the breadth of multiple sources in a variety of areas of language change, and advance one particular consequence that multiple sources can lead to, namely the hypothesis that recognizing multiple sources can be a basis for positing proto-language variation that is realized in variation within single languages and across related languages.

Keywords: multiple causation, etymology, borrowing, proto-language variation, drift, suppletion, enantioseme

1.   Introduction

Things in language are rarely simple, so that for any given linguistic phenomenon, a multiplicity of explanations generally needs to be considered. This multiplicity may take many forms, in part because the relevant notion of "explanation" can itself be varied. In one sense, "explanation" here can mean accounting for some synchronic entity by reference to the causal factors that have led it to be the way it is and to have the particular realization it has in the synchronic stage in question. These causal factors can be system-internal pressures, such as configurations of forms or occurrences of processes that "conspire", as it were, to lead to a particular

outcome, or system-external pressures, such as contact with speakers of a different dialect or language, or even a combination of internal and external pressures. In another sense, "explanation" can mean accounting for synchronic entities that are similar in some way by reference to multiple diachronic sources, where "diachronic source" should be taken to mean an etymological starting point; these sources can be system-internal elements, or, when borrowing is involved, system-external elements. In both senses, "explanation" refers to the invoking of logically or chronologically prior states that provide a rationale for why the synchronic entity to be explained, the *explicandum*, is as it is and takes the form that it takes. In this way, whether one is talking about multiple sources, multiple causes, multiple pressures, or multiple factors, they all add up to the same thing: some synchronic state of affairs has a multi-dimensional history.

There is as well a purely synchronic side to multiplicity and explanation. Superficial similarities among distinct synchronic entities, whether phonological or syntactic or semantic, can sometimes be accounted for, but also appropriately differentiated, by reference to multiple synchronic underlying forms, where "underlying form" can be thought of as a synchronic starting point (in an atemporal sense). For instance, one and the same surface form may reflect more than one underlying (semantic and immediate-constituent) structure; that is what structural ambiguity, as in *Robin looked up the dress in a catalogue* (verb plus movable particle) versus *Robin looked up the dress with a leer* (verb plus prepositional phrase), and phonological neutralization, as between word-final /t/ and /d/ in German, e.g., [bunt] 'variegated' (plural [bunt-ə]) versus [bunt] 'union' (plural [bünd-ə]), are all about, after all.

Another dimension to the issue of multiplicity of form is synchronic variation, where the same entity — that is to say, the same source element — takes on different forms in different contexts; in that way, a given element is merely being responsive to different causal factors or pressures present in the different contexts. Whether this is a matter of linguistic conditioning, as in such allophonic variation as the occurrence of English aspirated [pʰ tʰ kʰ] in syllable-initial position versus unaspirated [p t k] when preceded by [s], or social conditioning, as in the famous case of Martha's Vineyarders' variable centralization of diphthongs (varying between [aw aj] and [əw əj]) documented by Labov (1963), the situation is the same: a single source element has different realizations, multiple forms, when subjected to different environmental circumstances. In the same way, though a matter of multiple meanings rather than multiple forms, a word can take on new semantics when used in novel contexts; this is the essence of metaphor, as seen for instance when a concrete noun like *window* 'opening in a wall to let in light or air' gains an extended sense of 'period of time opportune for action', i.e. an opening of an abstract nature, in a context like *window of opportunity*.[1] And this synchronic

multiplicity of form or meaning can lead to diachronic differentiation, in particular if the conditioning context is lost.

As the foregoing suggests, recognizing multiplicity plays a role as well in historical investigations. For instance, from a methodological standpoint, identifying multiple sources is often good historical linguistic practice, even though doing so runs contrary to analysts' inclinations towards neat and elegant solutions that satisfy the injunction of Occam's Razor (*entia non sunt multiplicanda praeter necessitatem* 'entities [in a solution] are not to be multiplied beyond necessity'). That is, if multiple causal pressures on some part of a language system can be recognized, then rather than having to simply choose one, arbitrarily, as the single cause explaining why a change happened as it did, we can perhaps come closer to a true understanding of the developments in question by considering multiple causes acting in concert or even independently. That is, if all of the possible causal factors identified represent reasonable pressures that speakers could have been aware of and influenced by, then all may have played a role; to exclude any from consideration would be an arbitrary move.

There are other ways in which multiple sources occur in historical linguistics and, accordingly, the breadth of multiple sources in a variety of areas of language change is explored here. Ultimately, one particular way in which multiple sources can be manifested is brought into focus. I advance the view that, in a situation where there appear to be independent developments in related languages of the sort that might simply be called "drift" and not examined more closely, these developments may turn out to be better analyzed as the separate generalization in different individual languages of one of two or more variants of a form that were present in the proto-language linking the two languages or even the inheritance of both variants into each language. As noted above, synchronic variation is a type of multiplicity in that a single (underlying) element is realized in multiple ways; thus conditioned variants present in a proto-language would constitute multiple sources for forms (or meanings) found in later stages, i.e. in individual languages descended from that proto-language. Proto-language variation would be, therefore, another way in which multiple sources could play a role in the development of particular constructs and forms in a given language. And, I claim, a recognition of multiple sources in a proto-language for these various languages — that is to say, positing proto-language variation — can be of further assistance to historical linguists in that it can help to explain "drift"-like developments within a family.

2.   Suppletion

A natural phenomenon to think of in regard to multiple sources is suppletion,[2] and starting with this is reasonable, since it focuses attention on synchrony, which is crucial to the consideration of variation. In suppletion, two (or more) diachronic sources come to be integrated into a single synchronic paradigm, showing that disparate forms can come together to function as a paradigmatic unit. Functioning as a unit is important, since the most compelling cases of suppletion involve instances where it can be shown that there really is synchronic unity, despite diachronic multiplicity, true cases of *e pluribus unum*. English provides two classic cases of such demonstrably unified suppletion from different historical sources.

In particular, English *go* and *went*, as present and past tense of the common verb of motion, are known to derive from different sources, the former from Old English *gān* and the latter from Old English *wendan*.[3] Interestingly, though, these distinct elements demonstrate synchronic unity despite the formal and historical differences: idiomatic uses of present tense *go* immediately allow for parallel idiomatic uses of the past *went*; for instance, with the phrase *to go bananas* in the sense of 'to become crazy', the idiomatic meaning is found with both the present and the past tense forms, even though they have different origins:

(1) a.   I go bananas 'I become crazy'
     b.   I went bananas 'I became crazy'

A similar argument can be made for the suppletion seen in the verb *be*, in particular for the first person singular present form *am* and the form *are* that occurs in all other personal forms except the third person singular. The forms *am* and *are* are etymologically distinct yet certain aspects of their behavior reveal that they are synchronically united. In particular, in tag-questions, where an auxiliary or modal verb is repeated at the end of an utterance as a way of seeking confirmation, the usual copying pattern seen in (2a) is altered when *am* is involved, and instead it is "copied" by *are*, as in (2b):

(2) a.   I was a clever lad then, wasn't I?
     b.   I am a clever lad now, aren't /*amn't I?[4]

Thus in each case, there is paradigmatic unity, with the originally quite different forms behaving as if they are part of the same paradigm.[5]

3. Multiple sources in historical phonology

As noted in Section 1, contextually determined neutralization of contrast, as in German word-final *t*/*d*-neutralization, is a clear way in which a multiplicity of explanations, in this case in the form of multiple sources, can be manifested in phonology. This neutralization, as presented, is synchronic in nature, but it arose via an historical event, a final-devoicing sound change,[6] that thus tells us that diachrony can play a role in synchronic multiplicity. In this case, there are two synchronic, and two diachronic, segmental sources for word-final voiceless stops in German, earlier -*d* and earlier -*t*, but seemingly only one diachronic cause, the final devoicing. Still, another type of multiplicity can be argued to be involved here, namely multiple causation. That is, even though most linguists would probably ignore it, the historical event of the preservation of earlier final -*t* also played a role in the multiple sourcing of the synchronic neutralization; if final -*t* had been eliminated before the final devoicing, there would have been no neutralization.[7] Thus, in this case, multiple sources and multiple causes combine to give the present situation with neutralization. A multiplicity of causes can be recognized in other cases as well, with different circumstances. Malkiel (1976), for instance, in a consideration of Spanish historical phonology, discusses "multi-conditioned" sound change. The case in question is the long controversial Old Spanish asymmetric monophthongizations *ie* > *i* and *ue* > *e*, and Malkiel argued that they can be best understood as originating in morphological pressures from verbal inflection and various derivational suffixes, with the monophthongization enhanced by, but demonstrably not fully conditioned by, the phonological effects of some neighboring consonants, including *s* and labials, that had apparent, even if phonetically somewhat unusual, "promoting" powers.

Further, the "Big Bang" model of sound change, proposed by Janda & Joseph 2003, is built on the recognition of multiple dimensions to a particular development. In this model, the starting point for sound change (the "big bang") is a very localized and highly restricted phonetic environment that determines the initiation of the change; that phonetic context can be maintained in its original form or extended along further phonetically determined lines. However, that original phonetic core trajectory can also be abandoned, and if that happens, in this approach, there are multiple ways in which the change can be generalized, e.g. along phonological lines that are not strictly phonetic in nature, along grammatical lines, giving what has been called "grammatical conditioning of sound change",[8] or along social lines. These multiple paths of development, representing multiply potential ways in which sounds can develop, allow for changes in sounds to generalize and spread even if they are not purely phonetically determined sound change.[9]

4.   Multiple sources in historical semantics

Even when one moves away from mere sound in language in the direction of meaning, multiple explanations, and in particular, multiple sources need to be recognized. An interesting reflection of this is words that can be called *enantiosemes*, where a single word ostensibly has opposite meanings.[10] In some instances, such words represent different starting points, i.e. multiple sources, converging due to regular sound changes, as with *cleave* in English, with its 'split' meaning from OE *clēofan* but its opposite, 'adhere', meaning from OE *cleofian*;[11] multiple sources give what appears to be a single word synchronically with opposite meanings. Of course, not all enantiosemes have distinct sources for each meaning, but in some instances, the multiplicity of sources refers to the contexts in which a word is used, as with the verb *dust* in American English which, in combination with the object *crops* means 'put dust (i.e., insecticide) on' but when the object is *furniture* means 'take dust off'; in this case, both meanings are derivable from a basic denominal meaning of "do something involving dust and this other object", so that the pragmatics of doing something with *dust* to different kinds of objects give different senses to the verb.[12] The social contexts of use can also be the multiple sources giving opposite meanings, as with *could care less* coming to mean the same as *could not care less*, thus having the same semantic effect even with a difference in the presence/absence of negation. Most likely this arose via sarcastic usage, at least originally, since sarcastic talk is a sort of "opposite talk". And, with slang, where "disguised" talk is useful, opposite meanings for a word can arise from multiple social contexts; an example is *bad* in American English slang coming to have the meaning 'good', with possible origins in Black English (in the late 1960s, perhaps) as a conscious differentiation from mainstream 'white' usage.

5.   Multiple sources in scholarship: Etymology

Tracking down the source of the enantiosemes of Section 4 is a type of etymological exercise, aimed at working out the paths by which a particular meaning or word came about. But the etymology of a word is not always clear, not always with a single obvious answer; thus, one area of historical linguistic investigation where multiple sources have always been recognized, at least as far as the collective opinions of scholars examining a given word are concerned, is the exploration of etymology. That is, the etymological literature is filled with cases of disagreement among experts as to the source of a word; one need only cast an eye at any etymological dictionary to see example after example of multiple hypotheses on the part

of scholars as to the source of a given word in some language or other, involving lexical items, phraseological combinations, and even grammatical elements.

To take an example from my own attempts at etymologizing, multiple etymological connections were at issue in my discussion, in Joseph (1982a), of the source of the Ancient Greek word *tolupē* 'ball of wool'. I ultimately argued it was a loanword from an Anatolian language, but there were some who had proposed a Greek-internal etymology, e.g. connecting it with the root of *tulos* 'knot'. And even establishing an Anatolian connection led to etymological tangles, for the Anatolian word that I saw *tolupē* as connected with in some way, namely the Hittite verb *tarupp-* 'assemble, wind (thread)', was itself the subject of considerable debate etymologically, with at least four different etymologies proposed in the literature.

As with words, so also with phrases, so that at the phraseological level, one finds multiple scholarly offerings of differing opinions as to a source. For instance, the Modern Greek phrase *vasilevei o ilios* for 'the sun sets', literally "the sun reigns (as king)", has spawned a huge explanatory literature over the years. Some scholars, e.g. Hesseling (1920) and Kriaras (1937), have argued for a Greek-internal development based on the majesty of the sun at sunset, as it lights up the sky, while others have seen outside influence as the cause, but even there, arguments have been made for different external sources, with Jokl (1914) looking to an Albanian phrase as the basis and Papahagi (1923) arguing that Aromanian played a role in the development of the Greek phrase.

The important thing to realize about such disagreements is that although scholars often act as if only one etymological hypothesis can be correct, in principle more than one could be right, with different constructs in an earlier stage converging or external sources influencing the direction of development of a particular internal etymon. Further, it is also important to realize that *speakers* are not necessarily aware of multiple etymologies, though different speakers might make different connections in their "synchronic etymologizing", i.e. in the connections that they make among forms as they set about constructing their own mental grammars.

Still, a caveat about recognizing multiple etymological sources is essential. The suggestion of multiple sources all being viable surely breaks down in the case of words like Oscan *slaagí-* 'boundary', for which I confidently and optimistically claimed (Joseph 1982b) to have found *the* etymology, but for which there are some ten or more reasonable suggestions in the etymological literature. It is hard to imagine that all ten or so could be right and that this constitutes a massive case of multiple sources for the single Oscan word; most likely, just one of the proposed etymologies is right, and maybe a couple could be right, but surely not all of them are.

Nonetheless, it is not unreasonable to think in terms of multiple pressures, and as a consequence, multiple sources, playing a role in such developments, especially where what is involved is the influence of one form over another, what is generally referred to as "analogical change". And while some may look to children learning their language as a source of such changes, since speakers are subject to pressures ("analogy") caused by a network of related linguistic forms, a case can be made that adult speakers are more susceptible to such multiple source pressures. That is, by virtue of knowing so many words, adults have the potential for greater susceptibility to analogical pressure on particular forms. With adults, too, one has to factor memory issues into the mix, as the retrieval of infrequent and/or irregular forms may simply be a harder task for adults, allowing analogical formations to slip into their usage. Adults also have social pressures associated with the use of particular forms — recall the examples above involving different *social* contexts — that can affect their production, and adults in general have great awareness of other dialects, as well as, in the typical case, considerable exposure to a wide range of styles and varieties.

Thus, while one simply cannot escape differences of opinion in etymological investigations, these different opinions may well reflect the reality of varied — and multiple — pressures that speakers feel on their usage.

6. Multiple sources in contact — borrowing and re-borrowing

In some instances, as suggested in the examples in the previous sections, contact with speakers of other languages can be one of the multiplicity of sources. But there are also cases where a word enters the language from outside and there is as well a related native word. In such a case, the resulting synchronic situation is somewhat like the reverse of polysemy, in that there are multiple forms with a single — or at least related — meaning. And, when the source of the foreign word is the native word itself, leading to a situation that can be called "reborrowing", then multiple *proximate* sources need to be recognized even if there is just a single *ultimate* source.

For instance, Modern Greek *susámi* is the normal colloquial form for 'sesame', but there is also the form *sisámi* as a less preferred variant, associated with higher style, but still part of the recognizable lexicon for Greek speakers. Both forms derive in some way from Ancient Greek *sēsamon*, but the question is how exactly the multiple forms arose. In particular, this situation looks like it might be a case of a *single* source for multiple forms (*e uno plures*), and in a sense it is, but in another sense, it reflects multiple sources. That is, the best answer is that *sisámi* reflects the expected outcome of the unattested diminutive derivative *sēsámion** while *susámi*

is a borrowing from Turkish *susam*, but actually a reborrowing since *susam* is itself a borrowing from Greek *sisami* with a Turkish-particular sound shift of *–i-* in the initial syllable to *–u-*. Thus, there are multiple sources for the multiple forms of 'sesame' in Modern Greek, but since these Greek forms both derive from the same starting point, they can be viewed as a lexemic unit, meaning that the historical accident of re-borrowing from Turkish gives the multiplicity of sources.

7.   Multiple sources and causation

Recognizing multiplicity — both of sources and of potential pressures — is especially important when trying to determine causation for a particular development. Edward Sapir is an instance of an influential linguist who embraced looking at multiple causal factors acting in concert to bring about a change. In discussing the demise of the *who*/*whom* case distinction in English, Sapir (1921:161) recognized four factors here: a) the lack of a formal distinction between subjective and objectives uses for other interrogative and relative words (*what*, *which*, and *that*); b) the inflectional ending *–m* potentially acting as a "drag upon the rhetorical effectiveness of the word", especially inasmuch as all the other interrogative words (*what*, *when*, *how*, etc.) are "invariable and generally emphatic"; c) the conflict that arises between the tendency in English for the selection of subjective and objective pronominal forms to be associated with a difference of position (*I saw John* / *John saw me* / **Me saw John* / **John saw I*) and the consistent positioning of the interrogative word sentence-initially; d) the phonetic "clumsiness" of *whom*, especially when there is a transition to a nasal or stop (as in *Whom did you see?* versus *Who did you see?*) . Moreover, for Sapir (p. 161),

> the four restraining factors do not operate independently. Their separate energies, if we may make bold to use a mechanical concept, are 'canalized' into a single force. This force or minute embodiment of the general drift of the language is psychologically registered as a slight hesitation in using the word *whom*.

And, following Sapir's lead, and looking at a development that depended on language contact, I offered a multi-faceted account of the loss of the infinitive in the Balkan languages (Joseph 1983/2009), in which at least three factors were identified as contributing to these developments. First, in most of the Balkan languages there were at an early stage some verbs that allowed for both finite and nonfinite complementation, much as English allows both *I hope to win* and *I hope that I will win*; the availability of this finite/nonfinite variation was a necessary precondition for the ultimate loss of the infinitive, i.e. the generalization of finite complementation at the expense of nonfinite complementation, but other factors were needed.

One additional such factor was the communicative efficacy that finite complements, with full encoding of the subordinate clause subject for instance, offered in the multilingual environment of language contact in the central Balkans during the Ottoman period (roughly 15th century to 19th century) involving Greek, Albanian, Balkan Slavic, and Balkan Romance. Speakers of the different languages had some command of other languages, and accommodated their interlocutors by selecting the variant that provided the greatest amount of information in itself. Aiding as well were various language-particular — and, in a certain sense, totally "accidental" — sound changes that led some finite forms in some of the languages to converge in form with nonfinite forms, so that choosing the finite variant became that much easier. Thus each of the resulting finite-only complementation structures was the result of multiple factors acting on multiple sources.

A variant on such a multiply-sourced multi-factor approach in language contact is the situation in which contact with another language promotes and hastens the enhancement and spread of a development which is emergent on internal grounds in a language. In such a case, the language-internal and the language-external factors — the multiple sources bringing about a change — converge to drive the language in a particular direction. Friedman (2003) gives such an account for the emergence of evidentiality in Balkan Slavic (Bulgarian and Macedonian), involving pre-existing Slavic tendencies catalyzed by contact with Turkish.

8. Multiple sources in all change

Based on all these ways in which there can be a multiplicity of factors/causes/sources in language change, it should be no surprise, then, that changes happen,[13] and it perhaps should be considered remarkable that there can be instances where change does not occur. Moreover, importantly, such multiplicities may in fact be lurking behind every change, and in a certain sense then would be ubiquitous. That is, based on the reasonable view that in *all* changes there are two stages, innovation and spread, there will always be multiple sources playing a role in the realization and actuation of any change.[14] While this observation may have the effect of trivializing the notion of "multiple sources", there can still be considerable interest in the question of whether there are multiple sources for given *innovations*. Variation is an issue too, as speakers could have different interpretations of a given form or construction and both would be "right" in a certain sense (as suggested above regarding etymology)

9.   Variation and multiple sources

Recognizing variation offers another way in which there can be multiple sources. That is, while most of the multiple sources discussed so far have involved entirely distinct starting points — the exception being reborrowings, but even in that case the proximate sources are distinct — when variation is taken into consideration, a further possibility emerges. Since "variation" in its baldest sense refers to a situation where there are different ways of saying the same thing, it thus gives the potential for multiple starting points, as each variant could in principle spawn its own offspring in later stages of the language. And, I would argue, just as variation in attested languages can be seen as a basis for multiple outcomes, so too can variation in a proto-language be a source of multiplicity in the development of later constructs.

     This approach has been explored in Joseph (2006, 2012, 2013), based on evidence from West Germanic and from Indo-Iranian. All of these studies focus on developments in two or more related languages that are strikingly parallel in nature but cannot, under usual methodological assumptions,[15] be connected to one another since they each occur late in the respective traditions. The first study gave suggestive evidence from various recurring changes in English and German, closely related West Germanic languages: *s*-retraction in clusters with following stops in Modern English, e.g. giving [ʃtrijt] for *street*, [ʃkrijn] for *screen*, etc., a change which is strikingly comparable in some ways to developments in German dialects (including the standard language) in similar clusters and yet it is a late development that seems to have been absent from Old and Middle English; parallel vowel developments between English and German, as in, respectively, *house* and *Haus* from earlier *hūs* or *ice* and *Eis* from earlier [īs], etc., which show the effects of regular sound changes in each language, but again, though, ones that were post-Old English and post-Old High German; and the parallel loss of *h-* before resonants (sonorants mainly) in later English[16] and later German, as in *loud* and *laut*, where the #h- was preserved in earlier stages of the languages, cf. OE *hlūd*, OHG *hlūt*. The second and third studies offer a similar sort of evidence from two different but (closely) related language branches within Indo-European, namely Indic and Iranian, of various parallel developments at different levels of grammar. In regard to phonology, the variety of developments with word-final *-s was discussed in this light, and in regard to morphology, the functional merger of genitive and dative cases and the marking of first-person verb forms were discussed. In each case, the developments were somewhat late in the respective branches, i.e. in Classical Sanskrit but not Vedic Sanskrit and in Younger Avestan but not Gathic Avestan. Nonetheless, I argue that the parallel developments, when taken in the aggregate, can be explained — as opposed to merely being described — as

originating in variation in the particular proto-languages for the languages in-
volved, since otherwise the accumulated parallels become nothing more than one
huge coincidence; one such parallel in itself may lend itself to being accounted for
in other ways, e.g. an appeal to naturalness, but such accounts begin to ring hol-
low when invoked again and again. Thus, in the proto-language variation account,
each relevant proto-language offered multiple competing sources for its offspring
languages to choose from; that is, both [ū] and [aw] were present in Proto-West
Germanic and inherited into English and German and both a first person ending
simply in *-ā and another extended ending in *-ā- plus an additional ending *-mi
or particle *-ni, were available in Proto-Indo-Iranian and inherited into Sanskrit
and Avestan. Further, I suggest that it was this multiplicity of realizations that un-
derlay the emergence of [aw] in later English and later German and generalization
of *-ā-mi in later Indic and later Iranian. Each language underwent its own reso-
lution of the variation, but the starting point was a multiplicity of sources in the
proto-language.

Besides its value for understanding how multiple sources can ultimately be in-
stantiated in later stages, the recognition of multiple sources in the starting point,
a proto-language as here or even an attested language, can be a way of explaining
"drift", the notion introduced by Sapir (1921) for the occurrence of similar devel-
opments and processes in related languages at different points in their chrono-
logical unfolding. In this view, drift is simply the result of two different related
languages coincidentally resolving in the same direction instances of variation
inherited from their common proto-language.[17] As the outline of the examples
in West Germanic and Indo-Iranian show, when the variation is resolved in the
same direction in each line of development, one might be tempted to talk in terms
of "drift", as if the languages' later developments were somehow predetermined
by their starting point. But the direction of the resolution to the variation is a
language-particular phenomenon and thus need not be the same in each language.
Thus, recognizing multiplicity in the form of proto-language variation is also a
way of seeing what is unified in seemingly disparate developments across different
related languages.

To illustrate this idea with the *h*-loss development discussed above for West
Germanic, it is striking to note that there is a similar development in other branch-
es of Germanic. North Germanic, as illustrated for instance by Danish *rå* 'raw' and
lyd 'sound' compared to English *raw* and *loud*, shows loss of #h- before resonants,
from Proto-Germanic *hrew- and *hlud- respectively. Moreover, East Germanic
too gives relevant evidence from Crimean Gothic, as recorded in the 16th century.
Admittedly, there are problems with this later instantiation of Gothic, since there
is the possibility of second-language interference,[18] but it is interesting that in the
one word in the Crimean Gothic corpus that derives from an initial cluster of

h- with a resonant, we find the loss of the *h-*; in particular, Crimean Gothic has *Rinck* for 'ring', from Proto-Germanic *hringaz, with the same sonorant onset as in English (*ring*), German (*Ring*), and Danish (*ring*). Thus this *h-*loss is not just a West Germanic development, and it is tempting as a result to assign to Proto-Germanic the *#h-/#Ø- variation posited above for Proto-West Germanic. If so, then the Danish development would be a reflection of its resolution of the Proto-North Germanic variation inherited from Proto-Germanic. But importantly, North Germanic is not completely uniform in this regard, for Icelandic *hrar* and *hljóð* show that it has retained the initial *h-* in these clusters. In this view, then, the Icelandic development — the seeming lack of a change from Proto-Germanic *hr-/hl- in these words — is that language's resolution of the earlier variation and in that way it reflects the same process of resolving variation as does the Danish loss of *h-, despite the different outcomes; in each case, the speakers of a language were reacting to the same stimulus, namely variation inherited from their proto-language. Thus there is some unity to the Icelandic and Danish developments in this view, even though the ultimate outcomes differed.

In and of itself, invoking "drift" does not seem to be very explanatory, without the further difficult step of taking "drift" to be an actual process of change, parallel to such processes as sound change proper, analogical change (including perhaps metaphorical extension on the semantic side), and change due to language contact. But relating these developments to the resolution of inherited proto-language variation draws on a known process of change, and thus gives a basis for understanding drift. Since variation involves a multiplicity of forms that speakers of a language have to deal with, this view of drift represents a way in which multiple sources play a role in these sorts of developments too.

Accounts like this are admittedly hard to prove, but, as noted above, when there are several developments that lend themselves well to this interpretation, the collective weight of the various and the many otherwise accidental parallelisms adds up to give the drift-as-resolution-of-proto-language-variation a certain degree of plausibility.

10. Conclusion

The preceding sections have surveyed the ways in which multiple sources, multiple causes, and multiple pressures abound in language, at all levels of analysis — from phonology up through semantics — and in both synchronic and diachronic dimensions. Given the inherent complexity of language, of the creatures who use language, and of the social networks in which that use takes place, it should come as no surprise that it is rare to find single-factor answers to why aspects of

language are as they are or to find single sources for synchronic phenomena in a language. Methodologically, therefore, multiplicity should always be entertained as a possible mode of explanation, and should perhaps be taken to be the default mode, even, as the last cases involving proto-language variation would suggest, when we are looking to understand the prehistory of seemingly independent but parallel developments in related languages.

Notes

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1. See Section 4, below, for more striking examples where context determines the meaning of a word, leading to what synchronically seem like two distinct words.

2. As noted, for instance, in the workshop organizers' call for papers (and the introduction to this volume).

3. The modern *go*/*went* suppletion must be viewed against a historical *suppletive* backdrop, in that the past tense to Old English *gān* (present tense only) was *ēode* (past tense, from a different root).

4. The judgment reported here is valid for most dialects of English, where *amn't* is unacceptable; it does occur, though, in some dialects, e.g. Irish English.

5. I am purposely leaving aside here Comrie (1978), where a joking analysis is given to demonstrate how one might synchronically derive *go*/*went* from the same underlying phonological representation, (roughly) /gwVn-/, with Vn => nasalized vowel => oral vowel and loss of *w* in initial #gw- (since that sequence occurs only in obviously foreign words like *guano* or proper names like *Gwen*) giving *go,* and a different solution to the initial *gw-* "problem" before a different vowel giving the *wen-* allomorph.

6. I actually believe, following Hock (1976), that such a change, with its reference to a word-boundary, represents not so much a sound change in the strict sense ("sound change proper" in the terminology of Joseph 2008, Anderson, Dawson & Joseph 2010, and see footnote 9), but rather the analogical generalization to word-final position of a change originally triggered by utterance-finality. See also Joseph (1999) regarding the rationale for such a view.

7. By way of showing that the nonoccurrence of *-t#*-loss before *-d#*-devoicing mattered for the German neutralization, consider that Proto-Indo-European *-t underwent voicing to [d] word-finally in Old Latin but, because original final *-d# was lost after long vowels, there was no neutralization of the original *-t / -d distinction in that position.

8. Following Hock (1976), I reject the idea that sound change can be grammatically conditioned; almost always, in apparent cases of sound changes with grammatical conditioning, a

combination of phonetically conditioned sound change plus analogical change (e.g., of a morphological nature) is at work.

9. This is the basis for the distinction alluded to in footnote 6 between the more inclusive term "change in sound" and the more restrictive "sound change proper"; the latter term is to be used only for purely phonetically conditioned changes, and it is the type of change that was recognized by the Neogrammarians as regular (exceptionless).

10. My source for this term is Jim Matisoff of University of California, Berkeley, from a discussion we had in April 2008 at a conference; as best I can tell, he coined the term. A search for it on the internet turned up a single "hit": Finkin (2005), the author of which was also at University of California, Berkeley, and actually thanks Matisoff in a footnote "for much of the vocabulary" in his article. A similar term, *enantiomorph*, with essentially the same meaning, appears, as an apparent coinage, in Norrman (1999).

11. There does not appear to be, with these forms, the sort of evidence discussed in Section 1 for *go/went* and *am/are* that we are really dealing with a single polysemous word at the modern stage. Thus I am taking the phonological form alone as evidence of unity.

12. I thank Martha Ratliff for this example.

13. As Hans Henrich Hock has informally put it, "shift happens".

14. Some linguists (e.g. Hale 2007) would locate change *only* in the innovation part and say that "spread" is just a sociological phenomenon, not a linguistic one.

15. These assumptions include the matter of whether or not the changes in question are natural and/or respond to the same functional pressures. This is a tricky proposition, to be sure, since "naturalness" is not always easy to define; some linguists might say frequency defines naturalness while others might say that whatever occurs is natural even if infrequent. Dealing with sound change, as opposed to change in other domains, adds an additional layer of trickiness, since all sound changes are shaped by the physical constraints of the vocal tract, so that in a sense, all sound changes (or at least those that are instances of "sound change proper" — see footnote 6) are natural.

16. Present-day American English does show on-going variation between [hw] and [w] in words like *what*, *when*, etc., and between [hj] and [j] in words like *human* and *humor*. This variation shows that the impetus for the resolution process continues.

17. Trudgill (2004) also takes this approach to drift, treating parallel developments in various southern hemisphere Englishes as the result of variation present in the dialects that fed into these later varieties. See also Joseph (2013) for a detailed presentation of this account of drift in the Indo-Iranian case.

18. Both of the informants for Crimean Gothic who provided information for the Flemish traveller Busbecq, were also speakers of Greek, so that most Crimean Gothic data needs to be treated with caution due to the possibility of interference from their Greek. However since Greek allows for initial [xr] clusters, such interference is unlikely in this case. It could well be, of course, that Busbecq's Flemish ear could not hear an #hr- onset. Still, taking the data at face value as showing an initial [r-] in this word is reasonable and the path of least resistance.

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