BALANCING FORMAL AND FUNCTIONAL EXPLANATIONS IN LANGUAGE CHANGE AND LANGUAGE CONTACT[1]

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1. INTRODUCTION

I begin with a history lesson. The debate between formalists and functionalists can in a sense be traced back to Greek philosophical debates over whether *phusis* and *thesis* were the dominant forces in the universe. These words can be translated as 'nature' and 'convention' respectively, with the former deriving from the root *phu-* for 'be' or 'become', thus in a nearly literal sense referring to "the way things are (by virtue of their simply being)", and the latter deriving from the root *thē-* for 'place' or 'set', thus in a nearly literal sense referring to "the way things have been placed or established (by some (social) action)". We can interpret this as a essentially a forerunner of the *form vs. use/function* debate, with form being the way something is *(phusis)* and use/function being the way human intervention acts on language *(thesis)*.

> As is well known, the ancient Greeks applied this key opposition to many domains. Vivien Law 2003, for instance, puts it this way:
> In trying to find some kind of basis for order in what looked like an increasingly chaotic world... Plato and his contemporaries examined

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> every aspect of life in a search for order. Order, they realised, was of two kinds: one kind is innate, inevitable, and intrinsic to the things or beings to which it applies; while the other kind is externally imposed by arbitrary human decision. The first type the Greeks called *phusis*,... denot[ing] what is intrinsic to things, their inner « nature ». The second type was called *nomos* 'law' or *thesis* 'convention', something arbitrarily imposed. The opposition between *phusis* and *nomos/thesis* was pursued by the Greeks through all spheres of life. In politics, they puzzled over whether states came into being by natural necessity, by *phusis*, or whether their existence was arbitrary, conventional and probably temporary. In ethics, they pondered the question of moral laws: were they natural, universal and inexorable, or were they likewise arbitrary and conventional?... Most tellingly, the Greeks found themselves asking whether the gods existed by *phusis*, or whether they were merely agreed to exist by human convention.

And, also as is well known, this issue was applied to language, most directly in Plato's *Cratylus*, where Socrates speculated on why words mean what they do. This is an etymological question, but also relevant here, since his approach is couched in terms of etymology being a matter of the form of a word, though he recognized a usage/function basis in some instances.

Thus, as Law reminds us, Socrates etymologized the proper name *Astyanax* as consisting of *astu* 'city' plus *anaks* 'lord' and took that as evidence for *phusis* playing a role in why words, in this case a name, mean what they do, since here "the name ... accords with the essence of the person who bears it" (p. 22). In some cases, though, Socrates proposed considerably more far-fetched explanations of words, though still in accordance with his *phusis*-based principle, such as *phronēsis* 'wisdom' as being from *noēsis* 'cognizance' plus *rhou* 'flowing', or *rhoē* 'current' containing an [r] because [r] expresses motion, and so on. As Law notes further (p. 22), "counter-examples are not far to seek" and Socrates himself points this out, i.e. cases where *thesis* must be at work, e.g. "if *r* indicates motion, how are we to explain the anomalous word *sklērotēs*, meaning 'rigidity'?"

In the end, as both Socrates and Law recognize, word meaning and etymology need both *phusis* and *thesis*, both form and function, in a certain sense. I return to this below.

The formalist *vs.* functionalist debate in modern linguistics has a somewhat different character but the same elements are

involved, and thus the same issues as well. Functional accounts necessarily start with the human side of language and language use, whereas formal accounts start with structure and work outwards.

My goal here is to survey a few areas in our field where form *vs.* function have played a role or can a role in the hopes of showing how one might strike a balance between formalist and functionalist approaches. I do this by identifying where one approach or the other is needed, where one provides insight that is complementary to what the other provides, thus suggesting that both are indeed needed. In offering various case studies towards this end, I draw on what I know best, namely language change and language contact, mostly in the Balkans.

2. NEOGRAMMARIAN SOUND CHANGE

A key issue in historical linguistics since approximately the middle of the 19th century, thus for some 150 years, is the status of Neogrammarian position regarding sound change. This issue has to do with whether sound change is *regular*, in the sense of affecting all candidate forms for a particular alteration in pronunciation, or not, and if so, why it is so.

Regularity would be seen if at a time when there was a sound change turning [p] into [b] in word-medial position, the sound [p] occurred in 100 lexical items and the change to [b] occurred in all those 100 items – not 98 or 99, but all 100. Regularity demands full participation of the candidate forms, not just a suitable majority. This is a rather stringent demand, but it is interesting that literally thousands of cases of Neogrammarian-style regular sound change have been documented, e.g. loss of [w] in early Greek; fronting of [u] to [y] in Attic Greek; loss of word-initial [h-] in post-Classical Greek; various changes between Old English and modern English including the loss of initial [h-] before sonorants, the change of [k] to [tʃ] before front vowels, and the diphthongization of [ū] and [ī] to [aw] and [aj]; the loss of initial [h] before

sonorants between Old High German and modern German; various changes between Latin and French, such as the loss of final vowels, the nasalization of vowels in vowel+nasal sequences, and the raising of accented [a] to [ɛ] in open syllables; and so on. Cases of non-regular, that is, *sporadic*, changes in the realization of certain sounds represent a challenge to Neogrammarian doctrine on sound change but settling that issue is beyond the scope of the present discussion (though I am a firm believer in the Neogrammarian view of sound change). Rather, in the context of discussing form and function and their interplay, I want to draw attention to how these notions play a role in this important area of concern in historical phonology.

It is important to consider that for the Neogrammarians, any given sound change involved a purely mechanical adjustment in certain articulatory patterns brought on by the surrounding phonetic environment. Defining sound change in terms of a phonetic context in which the articulatory adjustment took place was important, and is the key to understanding why sound change should be regular, and why the Neogrammarian characterization of sound change as "mechanical" makes sense. If the defining characteristics are **phonetic** contexts, then sound change is determined by the most elemental sort of environment, in the sense that every sound must occur in some phonetic context when it is uttered in connected speech, and when the phonetic context is the same across a collection of words, the sound essentially has no choice (so to speak) but to be changed in the manner that the adjustment in pronunciation calls for. The alteration is mechanically applied whenever its structural characteristics are met because the only thing that can condition a sound change is exactly and only those certain structural (i.e., phonetic) characteristics that are always present. Thus regularity of sound change can be derived from what one, siding with Neogrammarians, can call the « phoneticity » of sound change.

What is relevant for the matter at hand here is that the emphasis on these structural characteristics means that Neogrammarian sound change – what I have elsewhere called "sound change proper" to distinguish it from other

adjustments in pronunciation that have a nonphonetic basis (such as analogy, as discussed later on) – in essence focuses on *form*. The function that a word is put to has no bearing on how its sounds develop, at least not directly, in the Neogrammarian view.

A real question that arises is whether you can have sound changes that are implemented according to some aspect of use, *e.g. via* frequency of usage, as many linguists now, adopting a "usage-based framework", would have it. It is interesting to note that Leonard Bloomfield, in his 1933 work *Language*, following and elaborating on Neogrammarian doctrine about sound change, explicitly rules out frequency as a conditioning factor. He did recognize that there could be special sorts of abbreviatory phonological changes in very frequent forms, such as various types of greetings, e.g. *God be with you* => *Goodbye*, or terms of address, *e.g. Madam(e)* => *ma'am* ([mæm]), or emphatic or asseverative utterances, as with *No!* => *Nope*, or current American English *all right* => [aajt]. But in such cases, he invokes not frequency – thus in essence rejecting the view that phonetic "erosion" is somehow like geological erosion – but rather the particular intonational contour or voice quality that is associated with such phrases, that is, a *phonetic* factor. That is, for Bloomfield, the particular circumstances of *use* demanded a particular intonation or voice quality and that phonetic parameter played a role in the sound change.

Here, form would seem to prevail in that one can formulate such changes in terms of purely phonetic factors, that is, elements of form. And, as a true believer in Neogrammarian sound change, this is the approach that I would adopt for such developments.

However, especially in the spirit of seeking here a balance between form and function, I happily note that there is a connection with function here that is worth mentioning and worth paying attention to. That is, even though the change of *God be with ye* to *Goodbye* in Bloomfield's Neogrammarian-based account is dealt with in purely phonetic *(i.e., formal)* terms, *function* is indirectly involved in providing the context in which the purely phonetic terms can operate.

Thus there is actually a need here to recognize both form and function. Focusing on form alone seems to offer an evasive way of preserving the Neogrammarian claims, though I hasten to add that it is entirely justified from a methodological point of view, so that recognizing the role that function plays in setting the context in which a particular form can emerge so as to satisfy Neogrammarian constraints, we do not necessarily solve any of the still outstanding issues regarding the Neogrammarian view of sound change, but it helps us to achieve a realistic balance between the two opposing notions of form and function as far as sound change is concerned.

3. SPEAKERS AS AGENTS IN CHANGE – LANGUAGE-INTERNAL DEVELOPMENTS

The role of function in sound change leads to a consideration therefore of how particular words and phrases are used, what the formal correlates are to that use, and what signals accompany a given use. These all mean that function is indirectly involved. However, paying attention to function also means paying attention to what speakers do as they use their language, not just how that use might trigger a particular element of form. Thus I turn here to the question of how speakers actively and directly engage in acts of change, starting first with some language-internal developments.

I have elsewhere advocated (especially Joseph 1992) that it is necessary to put speakers into the equation when trying to understand language change. My reason for making an issue of this is that all too often we act as it language change occurs independent of speakers and their actions. Our glib use of phraseology like "the language then restores balance to its system by adding this sound" or "this language changes all its stop consonants into fricatives word-medially" or the like –a way of phrasing things that is very common in the historical linguistic literature– can certainly be understood as a short-hand way of saying "the speakers of this

language then restore balance…". Still, the use of such phraseology may actually reveal a view of language change that sees it as something autonomous and separate from use of the language by speakers. That is, it seems to suggest that language change just happens, without speakers being involved at all.

There are, to be sure, many studies in recent years, *e.g.* Tomasello 2003, Bybee 2010, among others, that emphasize a "usage-based approach" to the study of language with acquisition and change as the two main focal points. These studies have drawn attention to the role of frequency of usage as a determining factor in shaping the way speakers actively construct their grammars. I suggest that we need to go beyond that, and look to see speaker activity, that is to say speaker agentivity, in much of what occurs in language change; in this way, with a speaker-oriented approach to the study of language change in general, there is a suitable counterweight working against the rather glib characterizations of language change referred to above.

In Joseph 1992, I mostly looked at language-internal developments where speakers actively forged new forms and clearly must have been involved in the developments; the developments in question are odd enough that they could not just "happen" and they were not simply forced into the language by the nature of the existing system. I survey a few of those cases here and then move to another area where speaker agentivity is crucial, namely language external developments.

I have to emphasize here that although I am advocating that we pay attention to the role that speakers play in change, there is actually an interesting and sometimes subtle interplay between the language as a formal system that speakers essentially take as is and use, and the ways in which speakers deal with certain aspects of that formal system that present problems, as it were, in actual use. Just as in the earlier discussion about sound change, here too there is a balance between invoking form and invoking function in trying to understand linguistic phenomena.

3.1. Sanskrit Reduplication

The first case to examine is Sanskrit reduplication. For the most part Sanskrit reduplication involves copying of the initial consonant of a root along with its following vowel, as in simple root form *tap-* 'heat' => reduplicated form ***ta-tap-***, or *pat-* 'fly' => ***pa-pat-***, and so on. Given such a clear pattern when consonant-initial roots were concerned, it is perhaps not surprising to see evidence that Sanskrit had a "problem" so to speak, with reduplication of certain roots, in particular those that were vowel-initial, since there is no consonant to reduplicate. Put in terms of speakers and what they were faced with, we can contrast the ease with which one might create a reduplicated stem in the case of a consonant-initial root, the case which by far was the norm for a root, as opposed to the question of what to do with vowel-initial roots.

As it turns out, some such cases were handled pretty easily, in that the vowel is lengthened, which is really the result of simply copying the vowel and then contracting the two like vowels into a long vowel, *e.g.* the weak root form *uc-* 'speak' => the weak reduplicated form *ūc- (i.e. u-uc-).* But a real problem arose with roots beginning with syllabic *ṛ-*, *e.g.* *ṛdh-* 'thrive', as the "lengthening" strategy *via* copying just the vowel of the root is not a satisfactory option, since at one stage of its development, Sanskrit did not have a long counterpart to *ṛ*, so that an [ṝ] was not available[2]. Accordingly, the language presented speakers with a real dilemma.

What happened is not something that could be predicted from the system-internal (*i.e.*, formal) pressures that were available; rather, what happened must be attributed to speaker agency in seeking out and doing something about this situation. In a sense, this situation can be viewed as one that the system itself got the speaker into, rather like being painted into a corner by a team of painters that you hired to paint

2. I have to say "at one stage of its development" since in the earliest Sanskrit we have, Sanskrit of the Rig Veda, [ṝ] does occur. However, it is a secondary development that arose based on morphological patterning in certain paradigms, and is not a direct outcome, *via* sound change, of any earlier sequence. In that sense, its peculiar history allows us to say that there was a stage of pre-Sanskrit where [ṝ] was not found.

your house for you while you were relaxing in an armchair in a corner of a room.

What speakers did was to prefix *ān-* in instances where reduplication was called for with such roots, *e.g.* ***ān-ṝdh-*** for the root *ṛdh-*. Where did that come from? Clearly, the system itself, the formalized "grammar" (by which is meant here the "language producing mechanism"), with its copying rule for reduplication, would not produce a form like that. Rather we must look to a root where the *ān-* would have arisen *via* the rules, namely the root *āNś-* 'attain', where *āN-* stands for a nasalized long vowel – copying the vowel here would give ***āN-āNś-***, where the nasalized vowel in the reduplicated syllable, occurring before a vowel, would be realized as a full nasal consonant, thus ***ān-āNś-***. This is the only place in the system of reduplication where *ān-* would arise as a reduplication syllable, so clearly what must have happened is that speakers actively parsed ***ān-āNś-*** as involving not the copying reduplication rule but rather a special prefixing of *ān-* in contexts where reduplication was called for morphologically. Since both ***ān-āNś-*** and *ṛdh-* are vowel-initial, this special prefixing was extended to *ṛdh-*, giving ***ān-ṝdh-***. Interestingly, the system was adjusted, in that one finds the "reduplication" syllable *ān-* occurring with other roots that have an initial *ṛ-*, such as *ṛh-* 'deserve'; this happens as a rule, to be sure, but without the speaker agency in the parsing of ***āN-āNś-*** and the extension of the newly identified element to *ṛdh-* and other roots like it, there would have been no such special rule.

Thus, both form –in this case the rules of the language-producing mechanism ("grammar")– and function –in this case rather actually usage by speakers and, thereby, speaker agency– need to be invoked in order to make sense of these developments. Moreover, there is the added twist of the new usage feeding back into the grammar, as a new "rule" is created, resulting from speaker agency, from speaker usage.

3.2. English Sound-Symbolic [æg]

Another case like the Sanskrit case involves a small cluster of words in Middle English that shared an element of form,

namely a final sequence [–æg], and an element of function, namely meanings having to do with 'the results of slow, tedious, or tiring action'; they are given here in their modern forms:

drag	'lag behind'
fag	'exhaust; grow weary'
flag	'hang limply, droop'
lag	'fail to keep up, straggle'

There was in addition one word that entered English in the late Middle English or early Modern English period that was close in terms of how it fit in with the words in this small group:

sacke	'sink, droop'

Here, speakers had a problem in that *sacke* represented a word that on one dimension, namely its meaning, which, after all is an aspect of its function, seemed to belong to the group of four above, but on another dimension, namely its phonetic form, seemed to be an outsider, and thus not a good member of the group. There was thus a form-function mismatch here to reckon with, as well as an issue of how any change involving this word is accomplished.

This mismatch was "fixed", so to speak, in a way detailed below. It is fair to ask here if the mismatch was something that the system would "fix", more or less on its own, or whether instead it needed the involvement of speakers. The answer would seem to be the latter, since there is no real systemic value to changing the status quo: there is no systemic harmony or economy to be achieved; the word *sacke* has to be listed in the lexicon with a form and a meaning no matter what sort of "word classes" it might belong to. And since the word class in question is really one that derives from the way the word is used and the connotations that it has, this is not something that the system necessarily registers in any way; rather it is what speakers make of the words that is at issue here.

So, what did speakers do? At a later stage, the form that results from *sacke* is *sag*, with a –g#, just like the other members of its semantic comrades. Since this change of –k# > -g#

is not a regular phonetic adjustment of any period of English (note what is said above in section 2 about "regularity of sound change"), it is not just a matter of a sound change accidentally matching *sacke* to the form of its semantic set. Rather, it seems that speakers actively solved the problem by assimilating the form of the word to its function, and making it fit with the general shape that words of that class took.

Thus clearly, speakers must have been the agents here, and not the system; the formal system itself is neither richer nor poorer with this change to *sag* but speakers' aesthetics, that is their sense of how the word is supposed to function given its form, are much better served by the form *sag* than by its predecessor *sacke*. Once again, then, the interplay between form and function seems to be needed in order to make sense of a particular change.

4. SPEAKERS AS AGENTS IN CHANGE – DEVELOPMENTS IN LANGUAGE CONTACT

One area where speaker agentivity is perhaps very obviously at work is in language contact in the sense that language contact depends on speaker involvement – what we so blithely call "language contact" is really *speaker* contact, after all.

I survey a couple of areas in which developments in language contact can be shown to necessarily involve speaker agentivity, including a case where we can overtly contrast a purely formal account with a more functional one; the overall effect is to give greater weight to the usage/function side of things, as might be expected if speakers are crucial to what happens, but some room turns out to be needed in these accounts for a consideration of form as being involved to some extent.

4.1. On Phonological nativization

The phenomenon of phonological nativization, whereby foreign words that enter a language come to be pronounced

more in accordance with the borrowing language's phonological patterns, is a very common outcome in borrowing. Examples abound, and one need only consider Greek loan words from Turkish where a Turkish [tʃ] (spelled < ç >) comes out in Greek as [ts], since Greek does not independently have a [tʃ], at least not in the standard language nor in the dialects feeding into the standard language, or an [nt] ends up as [nd] for a similar reason. The Greek outcome of Turkish < çanta > 'bag' shows both of these nativizations, showing up as [tsanda] (τσάντα).

In such cases, it is easy to see speaker involvement, speaker agentivity, since someone in the borrowing language actively does something to alter the form of a borrowed word. At the same time, purely formal aspects could be argued to be at work, since native patterns of sound (part of the formal "grammar" or "language-producing mechanism") take precedence over donor language patterns.

But how about cases of non-nativization, that is cases where a word is borrowed with more or less its donor language phonology, even if the relevant elements of the donor language phonology are at odds with the borrowing language's phonological patterns? For instance, in the borrowing into Greek of the French word *champagne*, for some speakers at least, the French –and non-Greek– [mp] is retained and the word is pronounced [sampanja] (σαμπάνια) (though with a Greek [s] in place of the French [ʃ], interestingly).

It appears in such instances that nothing happens and no one does anything, so it would seem that neither form nor function need to be invoked. Still, I would like to argue that even in such cases, there is a considerable degree of speaker agentivity and involvement, and ultimately usage/function – as defined by what speakers do or intend to do with a given word – can be seen to play a role, and form takes a back seat.

The case I use to illustrate this involves dialectal Balkan Slavic adoption of Greek loanwords. Most Slavic languages, as far as their standard language varieties are concerned, do not have the spirants [ð] or [θ], and this includes the South Slavic languages. However, dialectally within South Slavic, one can find the adoption of loanwords containing these

sounds without alteration, i.e. with non-nativization. In the Macedonian dialect of Boboščica, in Albania, for instance, according to Mazon (1936: 46), [ð, θ] occur in loan words from both Albanian and Greek, and the same holds in the dialect of Nestram in Greece, as reported in Schmieger (1998:56-58), and of Gorno Kalenik and Popəlzani respectively (villages in the far northern part of Greece), according to Hill 1991 and Dvorák 1998; they also note instances in those dialects of [γ], occurring mostly in loans from Greek.

Mazon (1936: 46) makes an important observation about the Boboščica adoption of these Albanian words without any nativization of the phonology to Slavic patterns; he notes that this phenomenon is especially common among younger speakers, to whom, as he puts it, "le *dh* [*i.e.* the spirant] albanais est familier".

These examples therefore show speaker inaction here, in that they are just taking over loanwords without doing anything to them. Paradoxically, I would argue, this is actually a type of action, showing an agentivity in the borrowing process that goes beyond just allowing a foreign word into their language. In particular, speakers have to also actively, as it were, *fail* to do something that is very common and natural in borrowing.

The interesting question, then, is why they do this (or fail to do this). Here, I would suggest, the crucial element in this outcome is, as Mazon suggests, familiarity with the donor language. Speakers who have had long-term exposure to and who have developed some knowledge of the source language are comfortable with the sounds and do not alter them, whereas speakers who do not know the source language adapt the sounds to native patterns.

We see this also in the differential borrowing of Greek sounds in Aromanian (Vlach) dialects, in that dialects that have been in contact with different co-territorial other languages (Greek for Aromanian in Greece, Slavic for Aromanian in Slavophone territory) have different outcomes regarding *ð/θ* in loanwords. In particular, Aromanian in Greece shows Greek-like fricatives, /θ, ð/ in loanwords from Greek (Sandfeld 1930: 103-4; Marioteanu *et al.* 1977); that is, the loanwords are taken over without alteration, adopted without

adaptation, without nativization (at least as far as the fricatives are concerned). Some examples include:

θimél^{u} 'foundation' (< Grk. *θemélio*)
anaθima 'curse' (< Grk. *anáθema*)
ðáscal^{u} 'teacher' (< Grk. *ðáskalos*)
aðínat^{u} 'powerless' (< Grk. *aðínatos*)

The adoption of these loanwords without the nativization of these sounds can be attributed to bilingualism on the part of these Aromanian speakers in Greek, and even more specifically to their familiarity with Greek as a result of that bilingualism. That is, Greek was within their comfort zone, and that afforded them the ability to allow Greek sounds into their Aromanian without altering them at all. The role of familiarity comes through clearly when a comparison is made with Aromanian in Slavophone territory (Saramandu 1984: 432). In this area the ambient second language was different (Slavic), and, significantly, there is a different outcome with Greek loanwords in that stops /t d/ occur for the sounds in Greek loanwords that ended up with fricatives in the examples above, e.g.:

timél'^{u} 'foundation' (Grk. *θemélio*)
dáscal^{u} 'teacher' (Grk. *ðáskalos*)

Moreover, Friedman 2006 observes that among speakers of Aromanian who do not know Greek or Albanian, especially younger speakers in Slavic-speaking territory, these fricatives are often replaced by stops. The same explanation holds for these Aromanian facts as for the Slavic facts mentioned above. In the region, the second language that Aromanian speakers know and are more familiar with is Slavic, where the fricatives in question do not occur, Greek loanwords show adaptation, whereas in the Greek-speaking area, where there is familiarity with Greek, no phonological adaptation occurs.

Familiarity is therefore of importance here, and significantly, it is a quintessentially functional notion, driven by speaker experience and speaker usage, thus showing the importance of a function here.

Interestingly, too, once we have a good basis for the non-nativization that is based on function, we actually have a stronger case for speaker agentivity in that formal accounts that have

been suggested here become unnecessary: there *is* an explanation that makes sense in the social context. Thus in a sense, we can show that here at least, function triumphs over form.

In particular, Marioteanu *et al.* hint at a purely structural explanation for the phonological shape of these loan words, pointing to a way in which the the non-nativization can be explained entirely in structural, formal terms. That is, they point out (p. 47) that the occlusives of Aromanian form neat square-like oppositions involving correlations of sonority (voicing) and continuancy, e.g. for the labials and for the alveolars (so also for prepalatals and palatals):

p – f	t – s
| |	| |
b – v	d – z

Further, they note that /θ, ð, γ/ fit into these patterned squares of phonological oppositions perfectly in the dentals and the velars:

t – θ	k – h
| |	| |
d – ð	g – γ

Thus, they seem to be implying that one could argue that this system was ripe for the borrowing of these phonemes, in that these sounds had slots ready for them within the existing system. Under such a view, there is a structural reason for /θ, ð, γ/ not being altered in the course of the borrowing of these loanwords from Greek.

While an interesting viewpoint, I would say here that what we have seen about the role of familiarity means that the adoption of these sounds without nativization instead can be seen as socially and functionally motivated, and more precisely to have resulted from bilingualism on the part of these Aromanian speakers in Greek. That is, under this view, speakers' familiarity with Greek, and not anything structural in the phonological system, was behind their ability to allow Greek phones into their Aromanian without altering the sounds at all.

We can even go one step further here. "Familiarity" as a notion can be seen as an ideologically driven construct,

dependent on how far speakers extend their sense of the boundaries of their language; elements that are familiar are *as if* they are part of the borrowing language already, and thus do not need to be altered. Ideology is necessarily something that speakers add to the overall environment in which the borrowing takes place, and therefore, to the extent that it is operative here, it must be a matter of language function and language having a particular place in the social milieu in which the speakers find themselves.

Moreover, familiarity explains why in these situations, one can find the "foreign" sounds spreading into words other than the loanwords in which they first enter the language. In the contact between Slavic and Greek described above, native Slavic words are reported to be pronounced in some of the dialects with Greek-like fricatives, e.g. [grað-o] 'the city' (*vs.* more usual Slavic [grad-o…], and in the Aromanian-Greek contact, [ð] is reported in Latin-derived words in Aromanian, such as [ðimtu] 'wind' (from Latin *ventus*). One interpretation to this entry of etymologically foreign sounds in native words is that the sounds are so familiar that they can be used in a wider range of vocabulary.

Ideology requires speaker involvement on a plane or along a dimension that is not just mechanical; rather it requires a higher level of consciousness about the borrowing act the speakers are engaged in and about the way the sounds function for them. Thus speaker agentivity and functionality are intertwined here, and form, while not unimportant, is not the driving force in regard to how these loanwords are treated in the borrowing language.

4.2. Conversationally Based Loans

As a final case-study, also involving loanwords, I turn to a way in which loanwords can be used to figure out details about the interactions of the speakers involved in the contact. Not coincidentally, there is a whole host of loans that depend on speakers being involved, not just on the receiving end, taking foreign forms into one's native language, but in the more global sense of the interaction; that is, one can see that there are many loans that depend on use in mundane day-to-day conversation with

others. These are loanwords that totally depend on function, that is to say on actual use, and could not be transmitted in any other medium; in particular, they are not part of learned or literary usage, and are absent typically from written language (except for writing that is mimicking speech). They are thus clear indicators that function matters in language contact.

What I have in mind are the following types of forms that function in discourse as the "glue" that hold conversational interactions together. What follows is just a very sparse sampling, but it gives an idea of just how widespread this phenomenon is in the Balkans[3]:

• attitudinal markers:

- Greek *de* (ντε) expressing impatience with an imperative, e.g. *ela de* 'C' mon already!' (presumably from Turkish *de* 'too, also')
- Albanian *de* expressing intensity with an imperative (from Turkish *de* 'too, also')
- Macedonian *zar* strengthening yes-no questions (from Turkish *zira* 'because')
- Bulgarian *zer* strengthening yes-no questions (from Turkish *zira* 'because')

• adversative/contrastive 'but' (maybe ultimately from Greek, but certainly widespread):

- Albanian *ama*
- Macedonian *ama*
- Bulgarian *ama*
- Greek *ama*

• unceremonious term of address or marker of solidarity (all ultimately from Greek *moré* (μωρέ) with its vast number of dialect variants, as represented only partially here; cf. Joseph 1997):

- Turkish: *bre, bire, be*
- Albanian: *o, ore, or, mor, more, moj, ori, mori, moré, mre, voré, bre*
- Romanian: *bre, mă, mări*

3. See Friedman and Joseph (2012: Ch. 4) for more details on these conversationally based loans in the Balkans.

- Aromanian: *bre, móre, óre, oré*
- Bulgarian: *more, mori, bre*
- Macedonian: *more, mori, bre*
- Serbian: *more, mori, bre*
- Romani: *bre, be*

• negation and affirmation (various sources):

- Romanian: *da* 'yes' (from Slavic)
- Aromanian: *po* 'yes' (from Albanian)
- Aromanian: *malista* 'yes (indeed)' (from Greek)
- Greek: *yok* (γιοκ) 'no way!' (from Turkish)
- Turkish: *ba* 'no' (from Greek)

These loans show function at work, so to speak, as it is virtually impossible to imagine how they could have been transmitted except through real use by real speakers in real conversational interactions. The forms are of course important, since they are generally preserved across the languages, but the function is key to understanding how they would have been transferred between languages. And presumably, with a functional basis like this, the reasonable inference can be drawn that speakers of different languages in the Balkans, presumably during the Ottoman period but perhaps earlier as well, were indeed talking to one another in ways that point to regular day-to-day sorts of interactions.

The functionality of these conversationally based loans thus gives a basis for important insights into the social history of the region. An extended example of such a conversationally based loan and what it reveals about interactions within the Balkans serves as a suitable closing case study.

There is an expression known to at least some Greeks that is used, or at least has been used, in the game of "peek-a-boo" that adults and older children play with young children[4]. The expression is *buli buli buli buli… dza* (μπούλι μπούλι μπούλι μπούλι... τζα), and the *buli* part (repeated four times) comes when the face is covered up by one's hands and the *dza* part comes when the hands open up to reveal the face. It is not a

4. This discussion is based on Joseph 2010.

particularly common expression now but has been reported to me by some Greeks.

Where does this come from? As far as Greek is concerned, *buli* is just a nonsense word. *dza* does have a use as an interjection marking surprise or indicating something like "here I am (somewhat unexpectedly)"; there is a variant of it with a voiceless initial, *tsa* (τσα).

But where does that *dza* come from? The only dictionary to comment on its source (ΙΚΝ 1998: s.v. τζα) says it is a "nursery word" (λέξη νηπιακή), and certainly its use and form make sense in that regard, based on the "allolinguistic" status –a marked functional status for linguistic elements involving being on the margins of "core" information-oriented communication– posited for the sounds [ts] and [dz] by Joseph (1984, 1994, and elsewhere). Still, even with an allolinguistic rationale for τζα/τσα, one has to ask why, if the word has a nursery-related origin, it has the particular form that it does.

It turns out that there is a compelling source for τζα/τσα if one looks outside of Greek. In particular, Albanian has an interjectional word spelled < xa > (phonetically [dza]) that, as listed in Mann 1948, has a meaning 'here you are'. This presentational meaning makes it especially appropriate for use in the game of peek-a-boo as the sound that accompanies the revealing of the face, since the face is being presented to the baby at that point. Presumably, then, if this source of the Greek utterance is accepted, this form would have entered Greek through Arvanitika, the Albanian dialects spoken mainly in Central Greece, the Peloponnesos, and Attica.

But what about the rest, the *buli* part? That too has a compelling source in Albanian, since the [buli] can be taken to be from the Albanian verb *mbyll* 'close, shut', as a third person singular past tense form. This phrase would thus in its etymological meaning be "[when the hands are over the face] (It-has-)closed, (it-has-)closed, (it-has-)closed, (it-has-)closed … [when the hands open up to reveal the face] Here-it-is!". Phonetically the Greek [buli] would be an expected rendering of Albanian *mbyll*: the initial *b-* for Albanian [mb] conforms to prevailing Greek phonotactics at the likely time of

borrowing (with voiced stops without a nasal "prop" being allowed in word-initial position) and the [u] for the Albanian front rounded [y] vowel[5].

Being able to relate the Greek expression to an Albanian (Arvanitika) source on the one hand gives an etymology for the expression, but really just for the form of the expression. On the other hand, it actually further gives yet another example where it matters to pay attention to both form and function. That is, connecting *buli* and *dza* with Albanian *mbylli* and *xa* explains the form that the words in the Greek expression have, but there is more that can be said about it. In particular, one has to wonder just how the expression might have moved from Albanian into Greek, and here the function is illuminating, since it allows for the reconstruction of the social context in which the borrowing must have taken place, just as was apparent with the other conversationally based loans. That is, what is the function of *buli buli buli buli dza*? It is a way that adults play with very little children, so a likely scenario here is that Albanian-speaking adults encountering Greek parents, most likely Greek mothers, with their little babies, surely engaged in peek-a-boo play, and said *mbylli mbylli mbylli mbylli xa* in the hearing of the Greek mothers, who then must have picked up the expression and hellenized it somewhat to *buli buli*.... Alternatively, one can imagine Greek mothers hearing Albanian speakers playing this with their own children, and that could have been the path of diffusion from Albanian into Greek.

Still, for this sort of contact to occur, there must have been relatively amicable sustained contact of a fairly mundane sort between Greek speakers and Albanian speakers, exactly the sort of on-going day-to-day contact that leads to convergence of the sort seen in the Balkans[6]. Thus this relatively minor detail of recent Greek cultural history turns out to give a very telling picture of Balkan language contact, and

5. Most likely through [i], which is the Arvanitika outcome of Common Albanian [y]; for Greek to round and back the [i]-vowel to [u] in a labial environment, especially with sonorant [l] following, is not at all unusual (note, for instance, *musmulo* « medlar » from earlier *mespilon*).

6. Even though I have suggested Arvanitika as the source, it is certainly possible to think of contact between Greek speakers and Albanian (not Arvanitika) speakers in Corfu or even southern Albania as the basis for the entry of the phrase into Greek.

all because it is essential to attend to both form and function in doing etymology[7].

5. CONCLUSION

For the most part, in the cases of language change examined here, there is function involved, to be sure, but also a system in which the function serves a purpose. To have a function, an element must fit into a system, and cannot just be a random element. Although the function is related to use, at the same time, speakers do seem to exploit the system and pay attention to form, so there has to be a balance between form and function, at least from the point of view of understanding language change. Both can play a role, perhaps individually, but also both together play a role as well.

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7. One might say here that Socrates would have been advised to have done exactly this in his etymological attempts.

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