#### **DISCUSSION 2**

# ENIGMA VARIATIONS: RESPONSE TO SAMPSON **Daniel Silverman**<sup>\*</sup>

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Language has...manifold devices for carrying on its business of communication [and] distinctiveness lost at the phonological level might be assumed without interruption of communication by higher-level markers in morphology and syntax.

Robert King, 1967

The Chinese pattern discussed by Geoff Sampson is surely remarkable, but it's not enigmatic, and it's certainly not paradoxical. Morphological responses to natural phonetic tendencies are encountered quite frequently in language change. The linguistic system, with its myriad phonetic and semantic pressures effecting changes simultaneously and at times antagonistically, always emerges functionally unscathed, its semantic clarity intact. The crux of the matter is this: Sampson is casting his net too narrowly, focusing on the *morpheme* (very roughly, 字; tsu), rather than the lexeme (very roughly, 詞; tshǔ). In the ongoing history of Mandarin, it is predominantly the lexeme, rather than the morpheme, over which the phonetic and semantic pressures on language use and structure demonstrably exert their influence.

Consider a few comparable cases:

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1. In certain southern American English speech communities (and increasingly, elsewhere), the lax non-low front nasal vowels  $\tilde{i}$  and  $\tilde{\epsilon}$  have merged, rendering homophonous the previously heterophonic "pin" and "pen", for example. There are well-understood phonetic reasons for a general lack of discriminability of such vowels, and so their merger makes phonetic sense. But does it make semantic sense? After all, mightn't their merger culminate in lexical ambiguity hence listener confusion? Given the ultimate trajectory of this change, the answer is "no: listener confusion was averted." How can we conclude this? Well, in many of these same communities, "pin" has been replaced by "stickpin" and/or "pen" has been replaced by "inkpen". There would seem little motivation for these innovated compounds apart from their heterophonemaintaining character; otherwise, it would have to be attributed to lucky chance that these dialects innovated the compounds, whereas in other dialects, "pin" and "pen" remain contentedly ensconced in the lexicon as phonetically distinct entries. And while chance does indeed play a role in the particular sorts of speech variation that are ever-present as language is being used and re-used, it plays a far lesser role on the selectional pressures acting on this variation: the very spoken variants (chance variants) that are successfully communicated to listeners-in this case, the compounds-are also the very variants (selected variants) that are likely to be reproduced as these listeners become speakers. Successful speech propagates; failed speech dies out. The most plausible scenario, then, is this: just as the vowels in question began their natural tendency to merge, chance spoken variants that served a disambiguating function (compounds like "stickpin" and/or "inkpen") emerged as successful, and thus began to take hold, eventually supplanting the occasionally confusing monomorphemic words. Indeed, as the compounds began to gain ground, they likely served to "free up" the sound change, as there were fewer functional barriers to its phonetic and lexical progression. None of this is likely to have happened in sequence. The present day pattern would be inexplicable if first, the vowels merged, second, rampant confusion resulted, and finally, compounding came to the rescue: languages do not suffer confusion easily. Rather, the compounding innovation likely co-evolved with the vowel merger: the semantically clear compounds were naturally selected and conventionalized, and the

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language maintained its semantically unambiguous structure, as it always had, and as it always will.

2. In a small region of southern France, the lateral has merged towards the voiceless alveolar stop in final position. Where Standard French has **bel** "pretty", this dialect has **bet**; where the standard Southern French has **gal** "cock" ("chicken"), this dialect has **gat**. However, these southern speakers don't use **gat** anymore. Instead, they use a variety of other local terms, including *vicaire*, and the word for "chick" (**pul** in standard Southern French, but **put** here). Bloomfield (1933) considers an explanation suggested by Gilliéron (1910) for this lexical shift: **gat** meaning "chicken" was now homophonous with the local pronunciation for "cat". As Bloomfield notes, the isogloss for the sound change tellingly coincides *exactly* with the vocabulary change. Again, due to selectional pressures on language use and language structure, the most plausible scenario is that the two changes—the phonetic change and the lexical change—*co*-evolved.

3. In Hungarian, a proposed series of historically back non-low unrounded vowels has fronted, thus merging with their front counterparts (Kálmán 1972); such a diachronic fronting of non-low back vowels is well-attested (Labov 1994), though not yet fully understood in phonetic terms. In Hungarian, any roots that were previously distinct solely on the back/front dimension were now rendered homophonous. Can such a potentially counter-functional development be motivated? A positive answer emerges when we further consider the role of vowel harmony. While Hungarian's extensive suffix inventory usually consists of morphs that agree in backness/frontness with the roots with which they appear, the vowel merger has culminated in series of disharmonic roots: the root vocalism has fronted, but these roots' suffixes remained back. It is the disharmony itself that might explain the language's tolerance of the merger: the very roots that were rendered homophonous as a consequence of the vowel fronting maintained their back-vowel suffix-taking properties, thus rendering the consequent morphological complexes both

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*phonetically* and *semantically* distinct from any diachronically stable harmony-triggering homophonous roots.

4. Cross-linguistically, laryngeal neutralization is quite prevalent among lexically non-prevocalic stops, and virtually unattested among prevocalic ones; if a stop is not released into a more open gesture such as a vowel, it may lose the phonetic cues associated with this interval of the speech stream, among them, cues to the state of the larynx. Korean has taken and run with this tendency: when not followed by a vowel-initial suffix, two root-final values (**b p**<sup>h</sup>) neutralize to the labial aplosive **p**<sup>\*</sup>; seven values (**d**  $t^{h}$  d<sub>3</sub>  $tf^{h}$  s h s') neutralize to the coronal applosive t'; three values (q  $k^{h}$  k') neutralize to the velar aplosive  $\mathbf{k}$ . Altogether, twelve values neutralize to three. Has so-called aplosivization resulted in rampant homophony and listener confusion? The answer, as always, is "no": only 14 sets of nouns (30 nouns in all; less than .01% of the noun vocabulary) may be rendered homophonous as a consequence of neutralizing aplosivization (Silverman 2010, 2012). Indeed, the neutralization of so many values may be tolerated in Korean exactly because it has a negligible effect on the amount of derived homophony. How this came to pass requires a consideration of Korean's extensive borrowing from Middle Chinese, which served to supplant a significant portion of its noun vocabulary: Middle Chinese possessed a very limited set of consonants in root-final position (**p**' **t**' **k**' **m n n**), and Sino-Korean forms quickly entered into an extensive system of compounding. Moreover-and this is the main point-the huge influx of Sino-Korean compound nouns seems to have been broadly coincident with the onset of native root-final consonant attrition, both characteristics permeating the lexicon over a series of centuries following the initial era of contact. Although coincident, this development was not coincidental: compounding greatly increased the opportunity for nouns to contrast with each other, such that the number of consonants undergoing lexical non-prevocalic aplosivization could increase *exactly because* of the compounding that was introduced by the Sino-Korean vocabulary. Again, Sino-Korean compounding may be seen as playing a dual role here: it both offset the potential homophony that aplosivization might have otherwise induced in the noun system, and it may have sped the attrition of root-final values, as there were now fewer

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functional pressures that would inhibit this phonetically plausible development. The present-day pattern, then, is simply the passive consequence of *selectional pressures* acting on the *chance variation* inherent to speech. Homophony was minimal at the outset, and, despite an ever-increasing amount of root-final aplosivization, has remained minimal to the present day.

5. Duanmu (2000) questions the very possibility of large-scale innovative compounding in Chinese (and, presumably, elsewhere): "When ambiguities do arise, a speaker can resort to a variety of ways to clarify them. It is unlikely that the entire speech community would come to agree on a single way of disambiguating each of the many homophones". But if language is nothing else, it is a communication system of passively evolved conventionalized patterns of usage that arises from the minor and limited chance variations in which speakers naturally engage. The communicative success of certain spontaneous innovations over others—especially in the face of potentially confusing, homophonous forms—may very slowly drive the linguistic system in new directions. This is what seems to have happened in Mandarin.

Meanwhile, in Wu, compounding and homophone-deriving allotony seems to have diachronically interacted in a comparable fashion, such that any "homomorphy" is rendered functionally inert by "heterolexy"; In Min, phrasal allotony is almost always "heteromorphic" (Silverman 2006); in Yue, with its richer syllable inventory retained from Middle Chinese, no such functional response was triggered.

Sampson asserts that the sorts of arguments presented herein are "unfalsifiable...with no predictive power". On the contrary, the predictions of the anti-homophony proposal are crystal clear: if we can find a language in which communicative success has become genuinely eroded as a consequence of phonetically-based semantic ambiguity, the anti-homophony proposal would be shown incorrect. The incontestable fact that we will *never* find such a language means that we can table anti-homophony as a topic of controversy, and get on with the business of using it as a framework for linguistic inquiry. (Confused by the verb "to

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table"? Don't be! In my North American English "to table" means "to set aside". In British English by contrast, it has the opposite meaning, "to discuss"; in any given speech community the term is unambiguous. And after all, language evolves in service to *speaking*, not in service to writing in prestigious international linguistics journals.)

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