The Internal Structure of Compounds: A phase account of Aphasia

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The internal representation of compounds has long been the subject of debate. One of the major points of contention is truly foundational: do compounds have an internal morphological structure? If so, what does the internal structure of compounds look like? The first question can be traced as far back as the fourth and third century BC of classical India. Panini was an ardent proponent of concrete morphology, words could be decomposed into morphemes, these morphemes had their own ontological status in the grammar. Panini represents what we could call: the atomist camp. Katyayana on the other hand saw words as 'seamless wholes', what he represents we could call: the holist camp (Bhattacharja 2006). The modern day holists such as Butterworth (1983), Bybee (2001), and Starosta (to appear) lie opposed to two groups: the atomist experimentalists (Taft & Forster 1975, 1979, Rastle et al. 2004, Fiorentino & Poeppel 2007), and the representational atomist morpho-phonologists (Kaye 1995, Scheer 2008, forth).

This study will definitively settle the debate. We will take the state of the art in morpho-phonological theory on compounds: our phase account, based on recent and forthcoming accounts of analytic morphology (Newell & Piggott 2006, Newell & Scheer 2007, Scheer 2008, forth.), and test its concrete and easily falsifiable predictions with an aphasic patient, RC.

RC produces errors in words of three or more syllables, but produces virtually no errors in words of two syllables (or less). This distribution of errors leads the holist and the atomist to clear and conflicting predictions regarding RC's production of errors in trisyllabic compounds (matched for phonological complexity). The holist's prediction: if the patient produces errors in trisyllabic simplex words, then he will also produce errors in trisyllabic compound words (matched for phonological complexity). The atomist's prediction, if the phase based account of compounds is correct: the trisyllabic compounds will pattern, not with the trisyllabic simplex words, but with the small words.

We will show the phase based account to be overwhelmingly supported by the results of the experiment. We will then discuss how the phase-based account and Harris' (1997) A-licensing, not only make the correct prediction, but also, explain the predominant error types we see in the patient's productions.

Part one presents the holistic and the atomist camps. We will show that although the former is a valid null hypothesis, previous experimental and morpho-phonological evidence from Dinka casts doubt on it. Part one will conclude with a phase based account of compounds drawn from the very latest in morpho-phonological theory. Part two sets up the different predictions the holist and the atomist will make with reference to the error production of our patient, RC. Part three, explains the experiment's methodology and materials. Part four, presents the experiment's results and analysis. Part five is a discussion of how the phase-based theory of compounds and A-licensing account, not only for the overall conclusions of the experiment, but also, the detail of the errors we gathered.