The Element |L| and Why We Need to Talk About Heads

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From the inception of Government Phonology (GP; KLV 1985), headedness has been an important ingredient in the mechanisms for deriving melodic content. In early GP, non-commutative Element Calculus (EC) used headedness to express the order of operands. However, EC was later abandoned and headedness became reconceptualised as dependency (cf. Anderson & Ewen 1987).

Most post-EC incarnations of Element Theory (ET; e.g. Harris 1994) allow a single optional head, what can be referred to as the Single Optional Headedness Condition (SOHC; cf. Breit 2013a). The head, if present, asserts a dependency relationship over the remaining primes. This is understood to be reflected in the acoustic expression of the primes, with arguments mainly coming from colour elements in nuclear position. For instance headless |I, A| is interpreted as mid /e/, while in headed |I, A| the head |A| is not only phonologically stronger, but also receives greater acoustic salience in the signal, being interpreted as /æ/ (Harris & Lindsey 1995, 2000).

Introducing headedness massively increases generative capacity (Breit 2013a) and the SOHC plays an important role in restricting the potential for overgeneration. Proposals without the SOHC (e.g. Backley 2011) can be shown to be not restrictive enough regarding generative capacity. Moreover, they fail to adequately capture phonological strength behaviour and are insufficiently explicit about the phonetic expression of headedness.

Primarily taking |L| as an example (though applicably more widely), this paper will highlight a number of such issues raising related questions that are rarely explicitly addressed in ET.

I first discuss the interpretation of unified |L|, which represents voicing as headed |L| and nasality as dependent |L| (Botma 2004, Nasukawa 2005). With saliency as a sole criterion we would expect the reverse, since voicing introduces limited low-frequency energy, but nasality introduces significantly more low-frequency energy into the signal (Breit 2013b). This situation raises the question of whether the asymmetry of dependency is truly correlated to saliency at interpretation, and whether the mechanism of expressing headedness differs between resonant |A, I, U| and non-resonant |L, H, ʔ|.

While many phonological facts fit an analysis where headed |L| is voicing and dependent |L| is nasality, such as the ability of a vowel like [æ̃] with a resonant head to be nasalized, I will show that in at least some cases the opposite assumption is advantageous. This raises the question in how far elements' substance and the phonetic manifestation of headedness are subject to cross-linguistic variation.

Lastly I will turn to the SOHC, which some recent versions of ET abandon (e.g. Backley 2011), allowing expressions with multiple heads. I show that this leads to a problem in terms of overgeneration and poses pressing questions regarding the phonological function of headship. For example whether there are phonological processes which are sensitive to the SOHC. I will argue that such cases exist, e.g. in spirantising mutations where the SOHC creates competition for the head position. I will also discuss a few cases where the SOHC may be problematic, but conclude that retaining it is worthwhile to maintain restrictiveness and avoid overgeneration.

Word Count: 500

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