

## Dial A for Adjunction

In Government Phonology, the special status of the element **A** (to be found in non-low vowels and in coronals) has long been noted (Cobb 1995, 1997; Kaye 2000). In this talk we will suggest that **A** is not melodic (*i. e.* not an element), but structural, and that this is the reason for its oddness. We will illustrate the thrust of the argument (mostly) with examples from English, but the implications are assumed to be universal. We will consider two major clues (**C1–C2**).

English has monosyllables of the type  $V:C_1C_2$ , such as *paint*, *feast* or *weird*. In such structures both members of the cluster must be coronal (Fudge 1969), *i. e.* contain **A**, with a proviso for *a* (as in *task* or *draft*). The systematicity does not end there, however: There is a clear connection between vowel height and the voicing of  $C_2$ , as noted in Pöchtrager (2006). This will be our first clue (**C1**).

(i) i: (I)	(ii) u: (U)	(iii) e:/eɪ (A·I)	(iv) o:/ou (A·U)	(v) ɔ: (U·A)	(vi) a: (A)
<i>fiend</i>	<i>wound</i>	*	*	*	<i>command</i> , <i>demand</i> ...
*	*	<i>paint</i> , <i>saint</i> ...	<i>wont</i> , <i>don't</i> ...	<i>taunt</i> , <i>haunt</i> ...	<i>aunt</i> , <i>grant</i> ...

After vowels with no **A** we only find *nd*, after vowels with **A** and some other element only *nt*, after vowels with only **A** both. The pattern of interdependency varies with the cluster; but again, **A** plays a crucial role:

(i) i: (I)	(ii) u: (U)	(iii) e:/eɪ (A·I)	(iv) o:/ou (A·U)	(v) ɔ: (U·A)	(vi) a: (A)
<i>weird</i>	(*)	*	*	<i>board</i> ...	<i>card</i> ...
*	*	*	*	<i>court</i> ...	<i>cart</i> ...

Long **A**-headed vowels can be followed by *rt* and *rd*, long vowels with **A** as a non-head cannot be followed by either and long vowels without **A** only by *rd* (*weird*). (The status of *u:* is open to debate, but the general pattern seems to hold.)

Under current assumptions it is unclear *why* a melodic property such as vowel height (presence/role of **A**) would interact with an unrelated property such as voiceless/neutral, argued to be a structural difference in Pöchtrager (2006). Such an interaction between unrelated properties fails the Non-Arbitrariness Principle of GP which demands that there be a direct relation between a phonological phenomenon and its context (Kaye, Lowenstamm & Vergnaud 1990: 194). The inevitable conclusion is that **A** must be structural itself. What all those English monosyllables show is not an interaction between structure and melody, but between two structural properties. This brings us closer to a non-arbitrary explanation.

The idea that the difference between, say, a *d* and a *t* in English is a structural one is not fairly wide-spread, though we believe it to be correct. Is there any further support then for our claim that **A** is structural, support that does not involve the distinction voiceless/neutral? The answer is yes, and this brings us to the second clue that English provides (**C2**).

In (Southern) British English, superheavy monosyllables in *sp*, *sk*, *ft* behave markedly differently from those in *st*: *st* seems to allow for any long vowel preceding it: *beast*, *priest*,

*boost, roost, taste, paste, last, fast, host, roast, exhaust* etc. This is in marked contrast to *sp*, *sk*, *ft*, which only allow for long *a* to precede them. We find *grasp, clasp, mask, task, draft, craft* etc., but never \**kli:sp*, \**e:sk*, \**dru:ft* etc.

The difference between these two types of cluster is easy to see: In *st*, *both* members of the cluster contain **A**. In *sp*, *sk* and *ft*, on the other hand, only *one* member contains **A**. Whether/what kind of a long vowel is allowed or not depends on how many objects around contain **A**. Again, we have an interaction between a clearly structural property (whether a long vowel is possible) and a property that so far been seen as melodic, **A**. And again, this violates non-arbitrariness, suggesting that **A** should rather be seen as structural.

While evidence that **A** be reinterpreted as structure is mounting, it is still somewhat unclear *what exactly* this structure should look like. We will propose that **A** is to be replaced by an adjunction structure as seen in (1b–c).

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|-----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| (1) | a. †                                                                              | b. Θ                                                                              | c. a                                                                               |
|     |  |  |  |

That is, a particular position ( $xN_1$ ) is broken up into two levels and the lower level combines with another skeletal point,  $x_2$ . This makes expressions that previously contained **A** structurally bigger than those without (two *vs.* one position); *cf.* † in (1a) which does not involve an adjunction structure (no **A** in old terms) to the structures of  $\mathbf{e}$  and  $\mathbf{a}$  (both of which used to involve **A**.) What differentiates the latter two is whether the two positions involved are both used up, as indicated by the arrow in (1c), or not (1b).

Our claim that expressions previously assumed to contain **A** are structurally bigger than those without has a number of interesting corollaries, all of which seem to be correct.

(1) The number of coronals in English outweighs the number of *e.g.* labials. With the adjunction structure in (1b–c) we have twice as many possibilities to represent expressions that formerly contained **A**. In other words, we expect such an asymmetry in number between (former) **A** and elements such as **U**, where no extra structure is involved.

(2) In the structure in (1c) both positions are used up, while in (1b) the complement  $x_2$  is unused. This unused room might be the reason why “superheavy structures” of the type  $V:C_1C_2$  are possible in the first place, *i.e.* what Fudge’s observation is based on.

(3) Kaye (2000) and Pöchtrager (2006) proposed that **A** can govern non-**A** (in clusters or diphthongs, for example). This governing potential might be derivable from structural size (*cf.* the metrical requirement of many languages that heads [governors] of feet need to branch.)

**References:** Cobb, Margaret (1995): Vowel Harmony in Zulu and Basque. *SOAS Working Papers in Linguistics & Phonetics* 5, 23–39. • Cobb, Margaret (1997): *Conditions on Nuclear Expressions in Phonology*. PhD dissertation, SOAS, London. • Fudge, Erik C. (1969): Syllables. *Journal of Linguistics* 5, 253–286. • Kaye, Jonathan, Jean Lowenstamm & Jean-Roger Vergnaud (1990): Constituent structure and government in phonology. *Phonology* 7, 2, 193–231. • Kaye, Jonathan (2000): A User’s Guide to Government Phonology. Unpublished Ms. • Kaye, Jonathan & Markus A. Pöchtrager (2009): *GP 2.0*. Paper presented at the “Government Phonology Round Table”, April 25, 2009, Piliscsaba/Hungary. • Pöchtrager, Markus A. (2006): *The Structure of Length*. PhD dissertation, University of Vienna.