Mutual Counterfeeding and Duke-of-York Blocking in Bari

Outline: In this talk, I discuss a neglected type of underapplication, where a derivation is blocked if it would lead to an output homophonous to the input ('Duke-of-York Blocking'). I show that this type of opacity, which is inherently problematic for rule-based theories, receives a straightforward account in parallel Containment-based Optimality Theory. **Data:** The phrasal tonology of Bari (Eastern Nilotic, Yokwe 1986) is governed by two pervasive processes: Word final H-tones spread to the initial syllable of a following word (e.g. ríp 'sawed' + dùpà 'cradle' → ríp dúpà, underlining marks multiple association of the same tone), but also trigger dissimilation of word-initial Hs (e.g. dók 'fetched' + kópò 'cup' → dók kòpò). Whereas both processes conspire to derive specific target forms (e.g. dép 'held' + kéré 'gourd' → dép kèrè → dép kérè), their interaction leads to an ordering paradox in a rule-based approach, as shown by Yokwe (1986): H-spreading counterfeeds H-dissimilation in bisyllabic LF inputs (mát 'drank' + wìnî 'medicine' → mát wínî *→ mát wínì), whereas H-dissimilation counterfeeds H-spreading for bisyllabic HL-inputs (e.g. dók kópò → dók kòpò *→ dók kópò). Crucially, what seems to be blocked here are forms that would be pronounced identically to the inputs, blocking a Duke-of-York effect (McCarthy 2003) in phonetic interpretation. **Claim:** I argue that a parallel OT-analysis couched in Colored Autosegmental Containment Theory (Zimmermann and Trommer 2014) straightforwardly resolves the rule ordering paradox, based on the independently motivated assumption that H-dissimilation in Bari is actually not H → L mutation, but OCP-driven insertion of a L between two H-tones. **Analysis:** I assume that tone spreading is triggered and restricted by an undominated set of constraints along the lines of Myers (1997) for Shona, abbreviated here by $_{PW}H_{PW}$ (tableau (1)). The OCP constraint marks all pairs of adjacent H-tones (independently of their association). Since the H-tones cannot be deleted or altered due to the Containment restriction on GEN (inputs must be completely contained in the output, Prince and Smolensky 1993, van Oostendorp 2005, Trommer 2011), the only possible repair is insertion of an intervening L-tone, which by virtue of the undominated constraint *Ⓣ ('Assign * to every floating epenthetic tone') must be associated to a TBU even at the cost of phonetically deassociating underlying tones (tableau (2)). Note that the containment-based system straightforwardly captures the opacity of L-epenthesis here. The deassociated final H-tone, although unpronounced, still motivates epenthesis since it remains part of the output. Containment also allows the direct implementation of the intuition that spreading is blocked in a Duke-of-York output via the constraint *]$_{HH}$ ('Assign * to every TBU which is simultaneously the right edge of two H-tone spans', tableau (3)). Finally, L-epenthesis would be redundant for LF inputs since the underlying L already separates the two H-tones (tableau (4)). **Discussion:** The Bari data present a type of underapplication which leads to a paradox in a rule-based framework, but can be directly captured in a Containment-based system. This shows that Containment not only imposes inherent restrictions on opacity phenomena, absent in rule-based accounts (Trommer & Zimmermann 2016), but also predicts additional patterns that cannot be captured by strict rule ordering. Crucially, the Bari case is also not amenable to a paradigmatic output-output account. Constraints on paradigmatic distinctness such as Antifaithfulness (Alderete 1999) relate different paradigmatically related forms of words, not identical word forms in different phonological contexts. The epenthesis-based analysis of H-dissimilation, if correct, further provides independent support to the claim for tone epenthesis as a default repair for OCP-violations as in insertion-based approaches to downstep (Paster and Kim 2011). Independent evidence for this analysis in Bari comes from trisyllabic H-spreading targets that retain their original H-tone on their final syllable (e.g. déʔ 'hid' + pílílí 'knife' → déʔ pílìlí), which leads to problems for a literal dissimilation account (HH → HL).

(Epenthetic association lines are dashed, phonetically invisible – 'deleted' – ones dotted)

(1) H-Spreading

Input: = c.	OCP	*]$_{HH}$	*(T)	$_{PW}$H$_{PW}$	FAITH |
☞ a. rip du da (H L)					**
b. rip du da (H L)				*!	

(2) H-Spreading + L-Epenthesis

Input: = c.	OCP	*]$_{HH}$	*(T)	$_{PW}$H$_{PW}$	FAITH |
☞ a. dep ke re (H L H)					****
b. dep ke re (H L H)			*!		**
c. dep ke re (H H)	*!			*!	

(3) Duke-of-York Blocking: L-Epenthesis without H-Spreading

Input: = c.	OCP	*]$_{HH}$	*(T)	$_{PW}$H$_{PW}$	FAITH |
☞ a. dok ko do (H L H L)				*	**
b. dok ko do (H L H L)		*!			****
c. dok ko do (H H L)	*!			*	

(4) Blocking of L-Epenthesis by Underlying L

Input: = b.	OCP	*]$_{HH}$	*(T)	$_{PW}$H$_{PW}$	FAITH |
☞ a. mat wi ni (H L H L)					**
b. mat wi ni (H L L H L)					***!*
c. mat wi ni (H L H L)				*!	