

Tone and stress in prominence based prosodic systems

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This paper investigates interactions between two phonological modules, tone and stress. While each module is governed by a set of OT constraints, interactions across modules are governed by an interface constraint. The focus of the study is the Štokavian dialect group (Serbian and Croatian regional and standard idioms) which diverges into a range of regional subsystems (Ivić 1958, 1985) as a result of interactions between tone and stress.

In our case study, each of the modules can be characterized by standard OT constraints. Constraints on tone include the faithfulness constraint IDENT-H, which ensures the identity of correspondent tones, and two markedness constraints that regulate tone spreading: NO LONG-H prohibits tone spreading (Yip 2002, Zec 1999), while BINARY-H, prohibits *unrestricted* tone spreading. Constraints on stress include ALIGNHEAD_{PRWD}, which requires edge alignment of the stressed syllable, that is, of the prosodic word head (McCarthy and Prince 1993); WEIGHT-TO-STRESS, which requires that a heavy syllable be stressed (Prince 1990); and, NONFINALITY, which prohibits stress on a word final syllable (Prince and Smolensky 1993). The interactions across modules will be captured by an interface constraint that characterizes prominence-based stress systems, and requires special prominence of a prosodic head. In our case, the requirement is that the head of the prosodic word be associated with a H(igh) tone: HEAD_{PRWD}/H.

Taking a typological perspective, we note that, in the group of dialects under study, tone governs the distribution of stress (cf. de Lacy 2002, Zec 1999): two undominated constraints, IDENT-H and HEAD_{PRWD}/H, jointly ensure that a H is invariably linked to its lexical sponsor, and to the head of the prosodic word, that is, to the stressed syllable. The space of dialectal variation is circumscribed by these undominated constraints. Crucial constraint interactions which account for a split into eight dialects are those between the tonal constraint NO LONG-H, and three stress-related constraints, ALIGNHEAD_{PRWD}, WEIGHT-TO-STRESS, and NONFINALITY. Stress-related constraints are, in some cases, satisfied by triggering tone spreading, and in others, by blocking tone spreading. However, due to the undominated BINARY-H, which allows only local tone spreading, in all eight dialects stress falls either on the syllable that sponsors a lexical H, or on the one that immediately precedes it.