Towards an integrative typology of tone

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In this talk, I argue that in order to better understand and explain tonal phenomena on a cross-linguistic level, we have to integrate tone typology into a broader research program with phonetics, morphosyntax, and historical linguistics. Himmelmann (2023) similarly concludes for 'stress' that it is not a useful concept for cross-linguistic comparison because it is multidimensional and highly complex. Even when each dimension is considered separately, comparison remains challenging not least because our understanding of the phenomenon is heavily influenced by (work on) European stress systems. It is not a coincidence that tone confronts similar issues.

Many – possibly a majority of – languages of the world are described as tonal (Yip 2002), but tonal phenomena are conspicuously absent from cross-linguistic studies and large-scale databases. Out of the 195 Grambank features (Skirgård et al. 2023), only one (GB291) makes reference to tone (in the context of polar question marking). If languages with tones are included in typological resources, classifications are often based on coarse-grained types, such as 'simple' (two tones) and 'complex' (more than two tones) in WALS (Maddieson 2013). These are carried over into cross-linguistic studies making broad claims about tonal languages (cf. Dediu 2011, Everett et al. 2015, Everett et al. 2016). Such coarse-grained system classifications have long been recognized as problematic because they obscure the actual diversity found within and across languages (cf. Brunelle & Kirby 2016) and treat tone as a disconnected from the from the rest of grammar. Heath (2016) observes that tonal languages are particularly ill-suited for traditional typology because of language-specific, systematic interactions between the tonal patterns and other parts of grammar. An example of such interactions are tonosyntactic patterns in Dogon that override lexical tones on adjacent constituents (Heath & McPherson 2013). Of course such systematic interactions are not limited to tonal phenomena – they are just much harder to ignore than with other phonological and morphosyntactic concepts.

Finer-grained tone typologies include Hyman's (2009, 2015) 'property-driven' or canonical approach and feature-based approaches (Maddieson 1972). Other typologies have focused on specific areas, families, or subsystems (e.g., Hildebrandt 2004 on Bodish, Palancar et al. on Otomanguean, Kaldhol 2024 on tonal exponence). Such approaches are confronted with various difficulties, ranging from basic questions of what constitutes 'tone' and a 'tone language' to more systematic ones regarding the phonetic correlates of the 'tones' and their function within the larger language system. Tone seems difficult to compare if conceptualized as a holistic category but also if we decompose it into finer-grained variables.

The way forward is not to propose ever more abstract, global variables, but to study tone in its natural habitat and to integrate different components into an explanatory, empirical framework. Research in this direction is already in progress, including phonetic correlates as causal models for tonogenesis (Gao & Kirby 2024), the inclusion of tonal processes into

constituency typology (Tallman et al. 2024), and testing assumptions about tone change (Auderset 2024). I explore how an integrative (tone) typology can work towards connecting these results.

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