1. Introduction

In Goad and White’s (2019) article *Prosodic Effects on L2 Grammars* (henceforth G&W), we are walked through the evolution of their Prosodic Transfer Hypothesis (PTH, Goad, White, & Steele, 2003; Goad & White, 2006), which, in light of a body of work that now spans 15 years, posits that first language (L1) prosodic representations can be redeployed (or in the authors’ words, minimally adapted) in the second language (L2) and that new L2 prosodic representations unavailable in the L1 can (in some cases) be acquired. Existing research testing the PTH has convincingly shown that phonology, and specifically these prosodic constraints, are at least partially responsible for the observed difficulties L2 learners have with inflectional morphology (e.g., Goad & White, 2008, 2009; Goad, White, & Bruhn de Garavito, 2011). And, as with any hypothesis that continues to develop, new questions have emerged for which targeted research is required moving forward. Herein, I address the examination of two of these questions which future research adopting the PTH should address: a) at what point in acquisition, if any, do learners develop the relevant morphosyntactic and phonological representations in each of the three conditions for minimal adaptation (and when minimal adaptation is not available)? and b) why do some learners appear to be more successful than others? Specifically, this commentary serves to outline two methodological considerations that can contribute to answering these questions and lead to a better understanding of the role and nature of prosodic constraints throughout the L2 developmental
process: Longitudinal observation and the measurement of cognitive individual differences that have been posited to predict L2 outcomes.

2. Mapping development via longitudinal investigation

Since research thus far has primarily concerned itself with ultimate attainment, data which represent the different stages of L2 acquisition for this domain are lacking, with the exception of Goad et al.’s (2011) cross-sectional study of the scenario for minimal adaptation in which L1 licensing conditions can be combined to build L2 prosodic structures. Moreover, evidence of acquisition at intermediate and advanced levels of proficiency under the scenario in which minimal adaptation is not available (Goad & White, 2009) suggests the learning task might not be completed as late in the acquisition process as previously thought, at least for a subset of learners. While the potential explanation that G&W offer as to why an intermediate learner might accurately produce the target structures when many learners categorized as advanced do not (i.e., that the learner’s proficiency categorization might not reflect phonological proficiency) is certainly possible, this outcome, in conjunction with the individual variation reported across studies, begs the question of which factors could be responsible for this variation. In light of the dearth of data from multiple time points, taken together with the attested variable outcomes, future PTH research should focus on longitudinal data spanning early stages of acquisition to advanced levels of phonological proficiency (cf. Goad & White, 2004, whose longitudinal data from an ‘end-state’ learner could not provide a picture of the full developmental process), rather than only cross-sectional data or data limited to learners that are categorized at higher levels of proficiency, with an eye to plotting individual trajectories over time. A longitudinal examination of production, comprehension, and processing of structures that involve the different types of licensing relations
discussed by the authors, together with the implementation of statistical methods such as growth curve analysis that estimate inter-individual variability in intra-individual patterns over time (e.g., Bollen & Curran, 2006; McArdle, 2009) will permit us to draw a richer and more robust picture of the acquisition process and better understand the reach of these prosodic constraints.

3. Linking individual differences and acquisition of L2 prosodic representations

The most recent instantiation of the PTH posits that “prosodic transfer is expected to constrain earlier and later stages of L2 acquisition but not necessarily permanently” (G&W, p. 27). If there is indeed Full Access, why are some learners able to overcome these constraints (hence the authors’ “not necessarily permanently”) while others are not? One possible explanation that has yet to be explored in PTH studies is the role of cognitive individual differences in learners’ acquisition of L2 prosodic representations. The study of individual differences is potentially relevant to the PTH given the evidence that certain cognitive variables may impact sensitivity to L2 structures and use of linguistic cues in processing (e.g., Tanner, Inoue, & Osterhout, 2014). In fact, such an impact could be heightened in the case of the interface phenomena that have served as test cases for the PTH, which require online integration of information from multiple domains. Evidence of a relationship between these individual-level variables and learners’ (lack of) success in developing the relevant L2 prosodic representations could thus potentially explain why ultimate attainment has not been more uniform among learners, and will serve to complement group-level evidence that prosodic transfer affects L2 processing (Prévost, Goad, & Steinhauer, 2011). The measures that have been linked to L2 morphosyntax and/or phonology outcomes and should be considered when testing the PTH include general cognitive measures such as processing speed (e.g., Hopp, 2010), working memory (see Cunnings, 2017), and phonological short term memory (e.g., Darcy
& Mora, 2016), as well as variables linked to L1 inhibition which include inhibitory control and attention control (e.g., Darcy & Mora, 2016; Mora & Darcy, 2017). The assumption that underlies the link between L1 inhibition and L2 outcomes is that increased cognitive control yields less interference from the L1, thereby freeing up resources needed to process and perceive L2 input more efficiently and to produce L2 output. This means learners with higher levels of cognitive control may be better equipped to construct L2 prosodic representations, and that this advantage may be evident in production of the relevant structures.

4. Conclusion

As the scope of the PTH – and the study of L2 interface phenomena more generally – advances, the methodologies we employ will need to advance in tandem to properly test the new research questions that arise. In response to the variable outcomes in ultimate attainment and in consideration of the questions at hand related to the different conditions for minimal adaptation, I have suggested that future testing of the PTH employ longitudinal measures and the examination of the predictive power of cognitive individual differences in an effort to better understand the developmental path in the acquisition of L2 morphosyntax-phonology interface phenomena.

References


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**Author’s address**

Jennifer Cabrelli  
601 S Morgan St M/C 315  
Chicago, IL 60607  
cabrelli@uic.edu