Exploring meta-expression accuracy in the pronunciation of English as a foreign language

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Abstract

Abstract

Oral expression is the primary basis of communication. Although human beings do not typically require training to learn to communicate orally, there are different levels of specialization in oral expression, constrained by the social and cultural situations and purposes of communication. Speaking in a foreign language, on the other hand, normally requires explicit training at different levels: pragmatic, lexicogrammatical, phonetic, and phonological, being the latter two related to how speech sounds are produced, transmitted, and perceived in linguistic configurations that belong to specific languages. In the last few decades, oral expression has been widely studied from a psycholinguistic perspective, and mainly approached through the error paradigm (Dell, 1986; Garrett, 1975; Levelt et al., 1999; Shattuck-Hufnagel, 1983). More recently, this knowledge has been grouped into a standard model of oral production (Meyer, 2000). Although there is ample research on the role of metacognition (Flavell, 1979; Schraw & Dennison, 1994) in promoting more strategic comprehension through awareness and control of cognition (McNamara et al., 1996; Soto et al., 2019, 2023), the same has not been ascertained in expression. Considering this, the present cross-sectional study aimed to explore awareness and control of pronunciation – which could be labelled meta-production or meta-expression – at a first-year course in English phonetics and phonology for pre-service teachers. We collected data on students' pronunciation of English through analytical scales comprising (1) vowels, (2) consonants, and (3) stress and intonation, and students' performance judgement in relation to these. With these scores, we calculated the absolute meta-expression accuracy index by mirroring measures in meta-comprehension (Schraw, 2009). Additionally, we devised, applied, and validated a scale to substantiate students' monitoring, evaluation, and regulation of their pronunciation. We applied AI hierarchical cluster analysis (Murtagh & Contreras, 2012) to identify natural groupings within the dataset. The analysis revealed three main clusters: (1) high-performance students with high meta-expression accuracy, monitoring, evaluation, and regulation scores, and moderate judgements on their performance; (2) medium-performance students with low, meta-expression accuracy, monitoring, evaluation, and regulation scores, and low performance judgement; and (3) low-performance students with low monitoring, evaluation, and regulation scores, high performance judgement, and moderate to high meta-expression accuracy. Results delineate the interrelationships among performance, metacognitive awareness, and

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meta-expression accuracy in an effortful cognitive activity such as the control of the pronunciation of English as a foreign language, providing a window into cognition in expression, and paving the way to discover ways in which learners monitor and control these cognitive processes.

Keywords: metacognitive accuracy, meta-expression, awareness and regulation of speaking, pronunciation of English as a foreign language, AI hierarchical cluster analysis

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