Title:

What is Relative Pitch? Survey reveals varied definitions, attitudes, and pedagogies

Format:

Poster

Proposal:

What does it mean for an individual to possess relative pitch (RP)? Do aural skills instructors agree on a single definition? How do they teach and assess RP in the classroom? Unlike absolute pitch (AP), which is the ability to produce or label a musical pitch without reference to an external standard (Marvin 2017), RP has no clearly agreed upon definition in the music-cognition and theory pedagogy literature: working definitions seem to capture some but not all aspects of this ability (Karpinski, 2000; Levitin & Rogers, 2005; Leipold et al., 2019; Marvin, 2007). Further while scholars have studied the prevalence (Ward, 1999 ), psychometric testing (Bermudez & Zatorre, 2009)), and neurophysiological mechanisms (Brauchli et al., 2019) of AP, RP has yet to receive such research attention.

The goal of our research is twofold. The first is to disentangle beliefs about RP and AP in order to arrive at an empirical, inductive understanding of pitch-based skills. The second is to study the demographic, professional, and pedagogical factors that are associated with pedagogies of relative and absolute pitch. In order to accomplish this, our poster shares data from a survey that asks music teachers (N = 48, *ongoing*) for definitions of RP and AP (e.g., **Figure 1**), classroom activities that foster them (e.g., **Figure 2**), and pedagogical beliefs about each (e.g., **Figure 3**). The survey also attempts to learn whether these attitudes are shaped by participants’ musical background and/or past teaching experiences (e.g., **Figure 4**). Data collection began in December 2021; complete findings will be shared at the conference. The poster will illustrate alluvial charts and other graphical representations of the data (e.g., **Figure 5**). This research is part of a larger project to build a skills-test battery that captures absolute- and relative-pitch abilities; this battery will have implications for both music-cognitive research and classroom applications.

(295 words, 300-word limit)

[Please see below for Supplemental Materials]

Selected Reading List:

Bermudez, P. and Zatorre, R.J. (2009). A distribution of absolute pitch ability as revealed by computerized testing. Music Perception, 27(2), 89–101.

Brauchli, C., Leipold, S.& Jäncke, L. (2019). Univariate and multivariate analyses of functional networks in absolute pitch. *Neuroimage, 189*, 241–247.

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Karpinski, G. S. (2000). *Aural skills acquisition: The development of listening, reading, and performing skills in college-level musicians.* Oxford University Press.

Leipold, S., Brauchli, C., Greber, M., & Jäncke, L. (2019). Absolute and relative pitch processing in the human brain: Neural and behavioral evidence. *Brain Structure and Function*, 224, 1723–1738. doi:10.1007/s00429-019-01872-2 pmid:30968240

Leipold, S., Greber, M., & Elmer, S. (2019) Perception and cognition in absolute pitch: distinct yet inseparable. *The Journal of Neuroscience*, 39, 5839–5841. doi:10.1523/JNEUROSCI.0653-19.2019 pmid:31341067

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Marvin, E. W. (2017). Musical connections: Absolute pitch. In *The Routledge companion to music cognition* (ed. Richard Ashley and Renée Timmers)*,* 203–212.Routledge.

Marvin, E. W, VanderStel, J., & Siu, J. C. (2020). In their own words: Analyzing the extents and origins of absolute pitch. *Psychology of Music*, *48*(6), 808–823. doi:10.1177/0305735619832959

McClaskey, C. M. (2016). *Factors affecting relative pitch perception*. [Doctoral dissertation, University of California, Irvine].

Miyazaki, K., & Rakowski, A. (2002). Recognition of notated melodies by possessors and nonpossessors of absolute pitch. *Perception & Psychophysics, 64,* 1337–1345.

Rogers, M. R. (2004). *Teaching approaches in music theory: An overview of pedagogical philosophies*, 2nd ed. Southern Illinois University Press.

Plantinga, J., & Trainor, L. J. (2005). Memory for melody: Infants use a relative pitch code. *Cognition, 98*(1), 1–11.

Schellenberg, E. G., & Trehub, S. E. (2003). Good pitch memory is widespread. *Psychological Science, 14*, 262–266.

Van Hedger, S. C., Veillette, J., Heald, S. L. M., & Nusbaum, H. C. (2020). Revisiting discrete versus continuous models of human behavior: The case of absolute pitch. *PLoS ONE, 15*(12), Article e0244308. [https://doi.org/10.1371/journal.pone.0244308](https://psycnet.apa.org/doi/10.1371/journal.pone.0244308)

Ward, W. D. (1999). Absolute pitch. In *The psychology of music* (ed. , 265–298. Academic Press.

Figures:

**Figure 1**. Excerpt from an active survey the ask aural skills teachers about their own definitions of RP and AP.

Text

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**Figure 2**. Excerpt from an active survey the ask aural skills teachers about classroom activities that foster RP and AP.

Text

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**Figure 3**. Excerpt from an active survey the ask aural skills teachers about beliefs about RP and AP activities.

Chart

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**Figure 4**. Excerpt from an active survey the ask aural skills teachers about their teaching experiences, training, and demographical information.

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**Figure 5**. Sample graphical representation of current survey data.