The Many Styles of Learning Styles Research: A Response to Fallace (2019)

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Fallace (2019) claims that the notion of learning styles has roots in ethnocentrism. While some of the work on learning styles research does indeed seem ethnocentric, neither was this work the earliest work on learning styles nor was it seemingly influential on much of the later research on learning styles.

Fallace (2019) presents an interesting historical inquiry into research on learning styles. He does a great job of tracing the intellectual history of anthropological research which supported the idea of cultural deficiencies, which in turn led to the idea of Black students having a different learning style. This analysis is useful and important for education researchers to be aware of; however, Fallace (2019) takes this a step too far by suggesting that the origin of learning styles research was this ethnocentric research.

In particular, he claims that “the learning style idea first emerged in the 1960s” (p. 349) in Riessman’s (1962) book *The Culturally Deprived Child*. However, notions similar to learning style have existed long before that, since at least the turn of the twentieth century. Meumann (1913), one of the founders of “experimental pedagogy,” describes different ideational types (visual, auditory, and motor learners):

Now we are led to suppose that these diverse characteristics of ideation give rise to different sorts of learning...The visualizer imprints upon his consciousness a picture of the printed or written word and of the spatial arrangement of its parts...The individual who belongs to the auditory or to the motor type immediately transforms the visual pictures, obtained from reading into heard or spoken words (pp. 180-181).

Meumann (1913) then goes on to note pedagogical implications of this, both in trying to train students of one ideational type to acquire another one and in tailoring instruction to match a student’s ideational type.¹ Thus, learning styles research (even if it was not called that) came long before then 1960s.

One of the challenges with tracing the origins of learning styles is that later work repeatedly did not cite predecessors’ work. Indeed, even Riessman (1966) wrote about auditory, visual, and kinesthetic styles, but did not cite work done by either his contemporaries or early psychologists. Interestingly, Dunn and Dunn (1975) recognized the early work happening on auditory vs. visual learning, but claimed that this work did not pay attention to the different learning styles of students:

As early as 1892 experiments were conducted to determine whether oral or visual teaching appeared to be more effective for students. At that time, and as recently as 1965, researchers tried to identify the “best” methods, not realizing that there are no panaceas (p. 74).

Although they presented a fairly long list of studies that compared different modes of instruction, for some reason, Dunn and Dunn (1975) seemed to miss the many researchers advocating for learning styles. One reason for missing these earlier studies might be that many of them were conducted by German psychologists and published in German; fortunately, Meumann (1913)’s book was translated into English, but if one wants to identify the true origin of learning styles research, proficiency in German would likely help.

While this early work is certainly characteristic of learning styles, we note that these works did not use the term “learning style” per se. Perhaps Fallace’s (2019) argument can be taken to mean that the work of Riessman (1962) and his colleagues who had an ethnocentric agenda is where the term “learning style” was first popularized. I cannot determine how the term gained popularity, but it seemed to be at least sporadically in use before

¹Interestingly enough, he does later admit that “even the auditory individual sometimes learns better from visual than from auditory presentation” (p. 269). Skepticism on the benefit of matching instruction to learning styles was alive even then.

Riessman's usage (Epperson & Schmuck, 1962; Leeper & Leeper, 1932), and for reasons I outline below, I do not think Riessman's use of the term is what popularized it.

Fallace's (2019) argument could still be valid in some sense if Riessman's work was the intellectual origin of the large body of learning styles research that succeeded it. However, as I have already alluded to with future researchers not citing their predecessors, this does not seem to be the case. Indeed, Fallace (2019) himself acknowledged this:

Despite Riessman's prominence in the literature, neither Dunn et al. nor Kolb cited him as the originator of the learning style idea. Generally, those who did cite Riessman in connection with learning styles tended to align certain learning styles with particular racial, ethnic, cultural groups or classes, while those who did not cite him tended to approach learning styles in more individualistic terms (p. 353).

He also acknowledges that these later researchers "were [likely] unaware of the work of race-specific learning style theories altogether and believed that race, ethnicity, and culture were completely irrelevant to the way that individuals learn" (p. 354). In this sense, Riessman and his colleagues' focus on the interaction of learning styles and race is just one of many styles of learning styles research; it was neither the earliest work on learning styles nor seemingly influential on much of the research that came after it.

Indeed, there are many styles of learning styles research, both in terms of research agenda and in terms of how learning styles are categorized. Coffield, Moseley, Hall, Ecclestone, et al. (2004) identified 71 different categorizations of learning styles in the literature. For example, in the mid-1960s and 1970s, around the same time that Riessman and his colleagues were exploring racial learning styles, Gordon Pask and his colleagues, Brian Lewis, and Bernard Scott, identified what they believed to be two types of learners (holists and serialists) (Pask, 1976, 1988). In a series of experiments, Pask (1976) found that students of either learning style who were taught with instructional materials matched to their learning style performed much better on assessments than students who were taught with mismatched materials. All of the experiments had highly significant *p*-values despite very small sample sizes. I think this work has been underappreciated in the learning styles literature, perhaps in part because it is framed in Pask's complicated conversation theory, "in what amounts to a new language—a whole string of invented terms together with redefinitions" (Entwistle, 1978, p. 255); again "foreign languages" can lead to blind spots in the long and rich history of learning styles research.

While I have shown that learning styles research can hardly be said to have ethnocentric origins, I believe there is an important takeaway from Fallace's (2019) paper, namely that researchers should be aware of how learning styles research can be co-opted to have a racial agenda. Indeed, any research on individual differences in learning is susceptible to this, and I do not think we are immune from this in the present day and age. Researchers, politicians, and policy advocates can interpret research on learning styles in problematic ways. However, branding all learning styles research as ethnocentric would also be problematic, especially since learning styles research is already under scrutiny due to its lack of empirical evidence. I am not arguing that there necessarily needs to be more research on learning styles, but that researchers should be able to continue studying learning styles without fear of being labeled as "ethnocentric." Research on learning styles simply needs to be productive—both in terms of its ethical agenda and in terms of seeking rigorous empirical evidence (Pashler, McDaniel, Rohrer, & Bjork, 2008)—in order to ensure we are pursuing a style of research that seeks to empower all learners.

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