

# Staying Current

The Need for Updating the Psychology of Pedagogy

Dr. Brendan Jacklin  
Fisk University

Operant Conditioning

1897

Behaviorism

1938

Myers-Briggs Type  
Indicator Test

1917

Hierarchy of Needs

1943

VARK

1992

Cognitive Development

1919

Bloom's Taxonomy

1956

Ideas have continued  
to evolve, integrating  
a growing  
understanding of how  
we learn.

# The Replication Crisis

- Replication failure rate of 50% (Open Science Collaboration, 2015)
- Found numerous causes: poor methodology, drawing incorrect conclusions, small sample sizes, publication bias, cultural and gender bias, and fraud

# WEIRD

- Western, Educated, Industrialized, Rich, Democratic
- 80% of participants representing 12% of the world (Azar, 2010)
- 68% of the studies originated in the USA, and 96% from WEIRD countries (Drevitch, 2020)
- Three zip codes published more than 50% of papers (Gibson, 2018)

“Thus, what we know  
so far [about  
psychology] may  
represent the tip of  
the iceberg...”

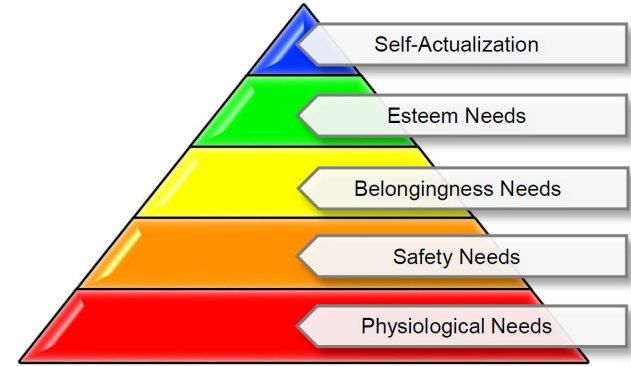
(Muthukrishna,  
2020)

# Myers-Briggs Type Indicator

- 1917
- Based on their reading of the work of Carl Jung
- 75% of people tested twice received different results (Pittenger, 2005)
- Self-reported surveys are self-deterministic
- Jung's original work based on anecdotes, alchemy, and mysticism

# Hierarchy of Needs

- 1943
- The pyramid was not created by Maslow
- Added levels: cognitive needs, aesthetic needs, and transcendence needs
- Based on Harry Harlow's rhesus monkey experiments and his own biographical analysis of select people





# Theory of Cognitive Development

- Sample size was largely his own children
- “Life pattern and cultural context have been found to play a significant role in cognitive development, however, Piaget ignored this particular area...cultural influence has been considered an important aspect of cognitive development.” (Franzoi, 2011)
- Underestimated infants and overestimated adolescents

# VARK

- “I sometimes believe that students and teachers invest more belief in VARK than it warrants. You can like something, but be good at it or not good at it...VARK tells you about how you like to communicate. It tells you nothing about the quality of that communication.”  
(Fleming)
- “Although the literature on learning styles is enormous, [there is] virtually no evidence that instruction is best provided in a format that matches the preference of the learner” (Pashler, 2008)

# VARK

- “The contrast between the enormous popularity of the learning-styles approach within education and the lack of credible evidence for its utility is, in our opinion, striking and disturbing.” (Pashler, 2008)
- “There’s evidence that people do try to treat tasks in accordance with what they believe to be their learning style, but it doesn’t help them.” (Willingham, 2015)

Ideas have been  
refined, refuted, and  
reimagined.

[brendan.jacklin@gmail.com](mailto:brendan.jacklin@gmail.com)

# Bibliography

Azar, B. "Are your findings 'WEIRD'?" *American Psychological Association Upfront* 41 no. 5. (May 2010). 11.  
<https://www.apa.org/monitor/2010/05/weird>.

Babakr, Zana H., Pakistan Mohamedamin, and Karwan Kakamad. "Piaget's Cognitive Developmental Theory: Critical Review." *Education Quarterly Reviews by the Asian Institute of Research*, 2 no. 3 (2019). 517–524.  
<https://eric.ed.gov/?id=EJ1274368#:~:text=Piaget's%20theory%20has%20some%20shortcomings,children's%20cognition%20and%20thinking%20ability>.

Cherry, Kendra. "Support and Criticism of Piaget's Stage Theory." *Very Well Mind*. November 8, 2023.  
<https://www.verywellmind.com/support-and-criticism-of-piagets-stage-theory-2795460>.

Chick, N. "Learning Styles. Vanderbilt University Center for Teaching." 2010. Retrieved July 7 2024 from  
<https://cft.vanderbilt.edu/guides-sub-pages/learning-styles-preferences/>.

Coffield, F., Moseley, D., Hall, E., & Ecclestone, K. "Learning styles and pedagogy in post-16 learning. A systematic and critical review." (2004). *London: Learning and Skills Research Centre*.

Diaz, Clemente I. "The Mythical Land of Psychological Types and Its Impact on Education." *The Learning Scientists*. <https://www.learningscientists.org/blog/2018/6/27-1>.

Diener, Edward and Robert Biswas-Diener. "The Replication Crisis in Psychology." *Noba Textbook Series: Psychology*. 2024. <https://nobaproject.com/modules/the-replication-crisis-in-psychology>.

Drevitch, Gary. "Psychology's WEIRD Problem." *Psychology Today*, April 15, 2020.  
<https://www.psychologytoday.com/us/blog/non-weird-science/202004/psychologys-weird-problem>.

# Bibliography

- Gibson, John. "The Micro-Geography of Academic Research: How Distinctive is Economics?," *Working Papers in Economics* 18 no. 03 (2018), <https://ideas.repec.org/p/wai/econwp/18-03.html>.
- Kenrick, Douglas T., Vidas Griskevicius, Steven L. Neuberg, and Mark Schaller. "Renovating the Pyramid of Needs: Contemporary Extensions Built Upon Ancient Foundations." *Perspectives of Psychology Science*, 5 no. 3 (May 2010). 292–314. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3161123/>.
- Khazan, Olga. "The Myth of 'Learning Styles.'" *The Atlantic*, April 11, 2018. <https://www.theatlantic.com/science/archive/2018/04/the-myth-of-learning-styles/557687/>.
- LeBlanc, Theresa René. "Learning Styles: Academic Fact or Urban Myth? A Recent Review of the Literature." *Journal of College Academic Support Programs* 1, no. 1 (Spring 2018): 34–40. <https://digital.library.txst.edu/server/api/core/bitstreams/f1ea6cd2-a727-440d-9623-0155267d0738/content>.
- McAdams, Dan. "Skeptical 'Deep Dive' on the Myers-Briggs Test." Interview by Charles Blue. *Under the Cortex*, September 23, 2021. Audio, 20:48. <https://www.psychologicalscience.org/news/releases/2021-utc-myers-briggs.html>.
- Muthukrishna, Michael, Adrian V. Bell, Joseph Henrich, Cameron M. Curtin, Alexander Gedranovich, Jason McInerney, and Braden Thue. "Beyond Western, Educated, Industrial, Rich, and Democratic (WEIRD) Psychology: Measuring and Mapping Scales of Cultural and Psychological Distance." *Psychological Science* 31 no. 6 (June 2020). 678–701. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7357184/>.
- Open Science Collaboration. "Estimating the reproducibility of psychological science." *Science Adviser* 349 no. 6251 (August 28 2015).

# Bibliography

Pashler, Harold, McDaniel, M., Rohrer, D., & Bjork, R.. “Learning styles: Concepts and evidence.” *Psychological Science in the Public Interest* 9 no. 3 (2008). 103–119.

Pittenger, D. J. “Cautionary comments regarding the Myers-Briggs Type Indicator.” *Consulting Psychology Journal: Practice and Research*, 57 no. 3 (2005), 210–221.

“Replication Crisis.” *Psychology Today*. <https://www.psychologytoday.com/us/basics/replication-crisis>.

Singal, Jesse. “One Reason the ‘Learning Styles’ Myth Persists.” *New York The Cut*, December 28, 2015. <https://www.thecut.com/2015/12/one-reason-the-learning-styles-myth-persists.html>.

Winstanley, Mark A. “Stages in Theory and Experiment. Fuzzy-Structuralism and Piagetian Stages.” *Integrated Psychological Behavioral Science*, 57 no. 1 (2023). 151–173. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9832071/>.

Winter, Theo. “Praise and Criticism: Hierarchy of Needs (Maslow).” *Human Performance Technology*, January 27, 2016. <https://blog.hptbydts.com/praise-criticism-hierarchy-of-needs-maslow#:~:text=Perhaps%20the%20most%20significant%20criticism,personal%20observation%20and%20biographical%20analysis>.

Yong, Ed. “Psychology’s Replication Crisis Is Running Out of Excuses.” *The Atlantic*, November 19, 2018. <https://www.theatlantic.com/science/archive/2018/11/psychologys-replication-crisis-real/576223/>.

Zárate-Torres and Juan C. Correa. “How good is the Myers-Briggs Type Indicator for predicting leadership-related behaviors?” *Frontiers in Psychology*, No. 14 (2023). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10017728/>.