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Book Review

The Learning Cycle: Insights for Faithful Teaching from Neuroscience and the Social Sciences

By Muriel I. Elmer and Duane H. Elmer
InterVarsity Press, 2020
223 pages
US\$22.00

Reviewed by Nathaniel (Than) Veltman who currently serves as Mission Scholar in missiology and community development with United World Mission's Theological Education Initiative at the Ethiopian Graduate School of Theology in Addis Ababa, Ethiopia.

Muriel and Duane Elmer have served as both educators (Trinity International University and Trinity Evangelical Divinity School, respectively) and missionaries for many years. This diverse background uniquely situates them for understanding how students learn in both formal and informal settings. In *The Learning Cycle*, they draw on this deep well of experience to apply insights from neuroscience and the social sciences to teaching, and in particular to develop tools for discipleship in teaching the Bible.

Their core contention is that how our brains learn matters. The book begins with Duane's experience with a student named Moses in which he concludes that "Being told *what* to think did not help him know *how* to think nor *how* to solve problems" (2). While this insight is not particularly new, what is new is the recent growing body of support from neuroscience and social sciences for *The*

Learning Cycle first developed in Duane's doctoral research. *The Learning Cycle* presents a model of learning, rooted in neuroscience and social sciences, that integrates "the *cognitive* (thought, reason, logic), *affective* (emotion and feeling), and *psychomotor* (behavior) aspects of learning" (6-7). This integration holds important insights and implications for faithful teaching, particularly in the local church context of disciple-making.

The book is divided into seven sections, five of which focus on different key components of *The Learning Cycle*. These five sections link recall, the first component and the basis of learning, with additional key ingredients: appreciation, speculation, practice, and habit. In the first section, the discussion of appreciation draws on neuroscientific insights on emotion to show that "positive emotions draw us in and open the mind to learn; situations that surface negative emotions we will tend to avoid and close the door to processing information" (71). Experience, and the uncomfortable feeling of cognitive dissonance and the way our brains respond to it, is the focus of the second section. Although this feeling is uncomfortable, the authors highlight how "dissonance is a stimulus for further learning...if we are open to learning" (93). It is here that the authors note the disruptive nature of barriers to learning and offer tools and resources to overcome them. Cultural barriers, for example, are easily overlooked and should not be ignored. Becoming adept at identifying these potential barriers is an important endeavor for the teacher and overcoming them takes analysis and planning. The authors provide concrete "learning tasks" that can help address these barriers (120-126). Their suggestion for teaching dependency on Scripture and prayer is particularly helpful for making the learning process concrete and practical in moving beyond the cognitive level of knowledge to daily practice.

This leads to the third section in which the authors attend to transformative learning. It is here that the "priesthood of all believers as a learning community" is emphasized, in which "we are all contributors—necessary contributors for the body's growth" (142). This is further developed in their chapter on the importance of "making a clear connection between the truth and the practice of

truth” (145). In creating this connection, teaching embraces how the brain learns and emphasizes those actions which enable deeper learning. This culminates in a final section on habit: teachers play an important role in encouraging the formation of good habits and replacing bad ones. Attention to habits produces a practical and tangible experience of teaching and learning in which the transformative power of the Bible takes root in peoples’ lives.

Taken altogether, the model aims for learning and discipleship that embodies Christlikeness in character, integrity, and wisdom. The authors consistently draw on Scripture, including how Jesus himself employed cognitive dissonance in his teachings. The book is made deeply personal and relatable through Bible teaching stories and experiences that show the impact of the Learning Cycle in both formal and informal educational contexts.

While the authors do a good job of engaging with the neurosciences, one concern is the recent challenge leveled at neuroscience research and the field of psychology more generally: The vast majority of this research focuses on students who come from western, educated, industrialized, rich and democratic (WEIRD) contexts, a non-representative group of the world’s population. This poses a potentially severe limitation on neuroscience research for cross-cultural application. The challenge is particularly notable for the chapter on emotion, which draws on somewhat dated research. This is not so much a critique as much as a caution in direct application to non-western contexts and among minority groups in the US.

This book is aimed at Christian theological educators in higher education, including administrators. However, reflective of the authors’ commitment to the local church and Christian education, anyone involved in teaching, guiding, or educating of any kind, including pastors and Sunday School teachers, will benefit from the insights into learning and the various tools presented in this book. It will serve as a helpful resource for discipleship among high schoolers, college students, and adults of all ages.