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In 2011, I developed a short Prezi explaining Perry’s model and some of its implications. In the ensuing five years, the Prezi has been viewed in excess of 6,000 times, indicating both an interest in and a need for the insights the model provides. For those interested in viewing or using the original Prezi, it can be found at the following url with audio commentary (https://prezi.com/exbfkeemwj_w/perrys-stages-of-cognitive-development-with-audio/) or here, without commentary (https://prezi.com/1cmn76suwcb1/perrys-stages-of-cognitive-development/). Both presentations can also be found by simply doing a Google search for “Devan Barker Prezi” or “Devan Barker Prezi audio.”

Because the presentation was given with the accompanying Prezi, a reader may wish to avail themselves of the links above to follow along with the graphics as they read this text. I also wish to note that I tend to anthropomorphize the brain for simplicity in presentation. I recognize that the brain neither likes nor dislikes, believes nor disbelieves, although I use similar language. Those are functions of either mind or spirit which, while assuredly related to the brain, are not quite the same thing.

Perry’s Model
The value of higher education does not lie only in acquired knowledge, but rather in developing thinking abilities. Thinking in new ways is dependent not only on the information we put in the brain, but on the structure and development of the brain itself, which happens in roughly predictable stages. These stages occur not as a slow, steady development, but in jumps that fundamentally reconfigure aspects of the structure of the brain. Perry’s work explored the characteristics of brains during various stages of
development as well as the relative sequence in which certain abilities develop. This stepwise restructuring of the brain isn’t complete until late adolescence or emerging adulthood, usually around age 25. Subsequent research has shown that these stages are not as strictly linear nor as exclusionary as originally presented by Perry, but his overall framework has been vindicated.

So having a developing brain is a bit like owning a home that is gradually added on to. Every once in awhile until our mid-twenties, new rooms or abilities that didn’t use to be there will “come online” or become available for use. Whether we furnish the new room, make use of it and move in, however, is up to us and our environment.

Although Perry articulated nine stages, at its simplest, his model shows us four main stages in cognitive development.

Stage One: DUALISM
In the early stages of development, a properly functioning brain displays the belief that all problems have correct answers and that authorities (teachers, leaders, scholars) can furnish these answers. Listening carefully to authority for received knowledge constitutes education. This is the stage of most incoming freshmen. The brain can remain at this functional level for life and that life can be contented, so long as it remains satisfied with authority. At this dualistic level, things tend to be seen as black or white, good or evil, day or night. These students know where truth and knowledge reside: they are with the authorities. Dualistic students become frustrated with ambiguity and with group work that removes the classroom authority (the teacher) from the center of the experience.

Stage Two: MULTIPLICITY
With further development, the brain recognizes the fallibility of authority. The resulting ambiguity causes discomfort and is not appreciated by students who equate knowledge with certainty. Brains in this stage tend to withdraw from authority and seek the company and/or affirmation of peers. In the absence of an unassailable authority to serve as arbiter of truth, arguments appear to be only opinions and they all appear equally valid or at least potentially so. At this stage, becoming educated is equated with schooling—turning the crank on a systematized learning process without necessarily much personal buy-in to the true value of the learning.

Some precocious entering freshmen have adopted this approach and many others join them by their second year of college, or even earlier. They have typically discovered that
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there are at least two sides to every assertion, and they take pride in their ability to deconstruct the positions of their dualistic peers. They question authority and may conclude that no absolute truths exist, but only perspectives and perceptions. While such an easy relativism is of questionable academic value, and potentially tiring to teachers and peers whose assertions are routinely dismissed, it seems that the brain must inhabit this state for a while before it can restructure further.

Stage Three: CONTEXTUAL RELATIVISM
Brains at the third stage recognize that important challenges have more-defensible and less-defensible solutions rather than a single correct answer or no answers at all. Yet, the brain is not yet adept at resolving which argument is most reasonable among competing arguments when all sound plausible. This student may recognize the need for evaluating evidentiary claims according to some standard or methodology, but are not as yet practiced at doing so. This stage therefore brings feelings of insecurity, self-doubt and occasional anger. Such students desire to understand, yet at the same time wish to escape from the intellectual work involved. Many college students achieve this stage in their upper-division courses with the help and scaffolding of their instructors, but regress to earlier stages when removed from the structured classroom environment.

Stage Four: COMMITMENT WITHIN CONTEXTUAL RELATIVISM
At stage four, the brain appreciates ambiguity as a quality of the most interesting challenges. It enjoys methodically discovering, evaluating, and using evidence. Brains at this stage recognize that reasonable answers often depend upon the contexts and value systems in which the problems occur, but are amenable to investigation. Education is perceived as the opportunity to develop understanding and to practice intellectual skills in those very situations where evidence is incomplete and certainty unachievable. Associated feelings are focus and commitment. Many college students never achieve this stage during their undergraduate years and first become comfortable with this kind of structured, disciplined thinking during graduate studies. Even for those who achieve stage four, however, moving from one stage of Perry’s model to the next is neither automatic nor painless.

The Student Experience
As students develop cognitively, they acquire new abilities but lose the luxury of relying reflexively on comfortable intellectual assumptions. They often mourn that loss, displaying all the emotions associated with grieving: denial, anger, bargaining, depression, and acceptance. Students who develop beyond dualism lose their sense of certainty about the world, and must learn to embrace ambiguity. Abandoning multiplicity, they lose the comfort of a situation in which their opinion, however ill-founded, is equally valid with every other opinion. Contextual relativism requires a great deal of work to discipline their thinking, evaluate evidence, and weigh perspectives. It is frankly difficult, especially compared to the easy relativism of stage two. Finally, transition into “Commitment within Contextual Relativism” requires students to take a stand and act based on their best evidence and thinking, but in the absence of absolute certainty. It requires both a trained mind and leap of faith. It also requires the recognition that learning, thinking, and evaluating will be constant.
processes throughout life. Perry’s model suggests that while learning is generally difficult, cognitive development can be downright painful.

Measured, evaluative thinking of the kind reflected in the higher stages of Perry’s model is not the only kind of thinking that has value, but the ability to systematically weigh ambiguous evidence and take committed action in the face of uncertainty is one of the most important skills to modern life. That is one of the principle benefits that can come through the formal training of a university education. Developing such high-level thinking takes years and requires lots of practice in making evidence-based commitments. Along the way, students should expect to feel insecure, become frustrated, doubt themselves, and possibly want to quit. They may experience a profound sense of loss and the need to grieve that loss. While discomfort accompanies this development, persistence will bring success. There are no known shortcuts to higher stages that don’t require some time spent in the lower ones.

For university students, this model may help explain some of their experience and even mitigate the more difficult moments. For professors, it offers insight into why our students sometimes struggle and how we can best help them. We need to introduce them to the content of our disciplines, but also to give them many, many opportunities to evaluate evidentiary claims using the methods and assumptions of our discipline, and encourage them to take a stand based on their evaluation. We need to give them lots and lots of low-stakes practice at doing this, recognizing that they will fail over and over again as they fall back to more comfortable ways of thinking and deciding. As we provide safe opportunities to practice and fail, however, we will also nurture in our students the capacity for committed, effective action in a world replete with messy problems, insufficient information, and questionable evidence.

References


