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*“But I don’t know what you want!”*

*“It’s not fair for you to grade me on my opinion!”*

*“The textbook says one thing and you say another. You can’t both be right!*

*How do I tell what’s the right answer on the test?”*

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## **Cognitive development theories can be tools in our classrooms**

*By Jim Reynolds*

Few of us go very long without hearing complaints like these from students, students who may be angry or crying or just giving up. And we often get just as frustrated as our students and we often want to holler back:

“I want you to THINK, dammit.”

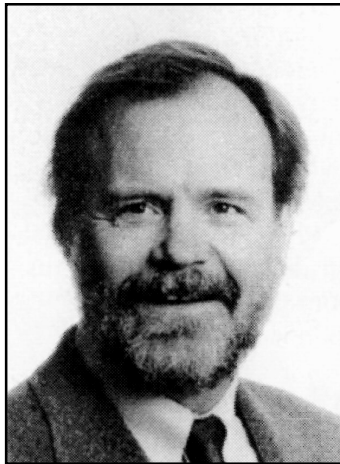
“You must support your opinions with concrete evidence.,,

“Both the book and I are right - it depends on how you look at the issue.”

Although such responses don’t seem to work very well, we can gain some insights into our students’ frustrations from several studies of students’ cognitive development patterns - from how college students construct knowledge.

The best known of these studies are William Perry, *Intellectual and Ethical Development in the College Years, 1970*; Belenky, Clinchy, Goldberger and Tarule, *Women’s Ways of Knowing, 1986*; and Marcia Baxter-Magolda, *Knowing an Reasoning in College: Gender Related Patterns in Students’ Intellectual Development, (1992)*.

What’s useful about these three books, and the myriad articles they’ve stimulated, is the similarities in the patterns they found. All now stress that while there are clearly tendencies toward gender differences in the subjects they studied, simple stereotypes of men or women will of course not be very useful. Some men think and learn more like many women, and some women construct knowledge more like many men.



**Dr. Jim Reynolds**

Nevertheless, the patterns are useful, and they can be summarized. Please realize, however, many of the complexities and subtleties are omitted from the summary that follows. It is become widely accepted recently to describe these patterns in four general stages:

### **Stage I**

For students in stage 1, knowledge is external, it comes from authoritative others, and the concept of interpreting doesn’t really make sense. Knowledge is certain, answers absolute, and instructors have all the answers. Teachers who won’t tell students exactly what “they want” are incompetent or unfair. Grades are like hourly wages. These students don’t know how to try to understand: either you get it right away or not at all. Critical thinking, for these students, is finding the right answer

by following formulas from authority. Moral choices are always right or wrong. These students are often intelligent, but for them being smart means being able to absorb lots of right information. And women are less likely to identify with authority than are men.

The transition to stage 2 usually comes with the awareness that even good authorities disagree and that diverse perspectives among peers must be managed somehow. Many women begin to recognize the emergence of an individual voice.

### **Stage 2**

Students in stage 2 recognize areas where “the truth” is not yet available and thus where everyone has a right to her or his own opinion. Uncertainty is legitimate. In many areas, authority is gone and knowledge is either simply objective or personal. Baxter-Magolda also finds two useful types of stage 2 learners: [1] “interpersonal-pattern students” like to learn by interacting with the instructor and collecting ideas from peers, while [2] “impersonal-pattern students” prefer debate and being challenged by instructors.

### **Stage 2**

Students may recognize complexity, but they have no way to deal with it. They may recognize that understanding is better than simply acquiring and remembering information, but they may also be openly anti-intellectual, favoring gut feelings and intuition over logical analysis: a kind of “makes sense epistemology” operates. Stage 2 students often

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# Teaching for intellectual development

find it difficult to reflect on self.

About 75% of college students graduate in stage 2, and no one is likely to leave this stage without higher education.

The transition from this stage begins when students find opinion to be insufficient, often when teachers force them to support opinion with relevant information and logic.

## Stage 3

In the third stage of cognitive development, knowers can come to value form more than content, leading to “methodolatry”, but they also learn to integrate external ways of knowing, to recognize and respect complexity, to discover and value different perspectives, and to listen to an inner voice that can be critical of one’s own ideas. Ironically, students begin to emerge as independent thinkers by doing it the way we tell them to.

Baxter-Magolda identified two types of „procedural knowers”: [1] “Separate knowers” follow impersonal procedures, use logic to uncover truth by rooting out errors, and often speak in an impersonal, public voice that aims to please the teacher (and which they may perceive as “bullshit.” For them, justice is based on impersonal, universal laws (the Categorical Imperative). [2] For “connected knowers” the most trustworthy knowledge comes from reflection on personal experience. It often begins with an attitude of trust and empathy that sees truth emerge from understanding rather than judging. Morality is based on care (the Golden Rule).

Both kinds of procedural knowers learn by meeting in groups: the separate knowers learn by trying to sell their ideas to others, the connected knowers by asking others to help them nurture and develop half-formed ideas (which takes longer). Neither kind of procedural knower is necessarily committed to the ideas and positions they understand: personal values are overshadowed by the empathy or by academic conventions. They sense that disciplinary paradigms reflect values, that no one field is adequate for real-world thinking, and they can come to feel like chameleons. They begin to integrate intuitive and personal knowledge with that from authorities.

## Stage 4

Stage 4 students, rare among undergraduates, are aware of complexity, are

suspicious of simple questions and simple answers, understand that problems and solutions vary with context and frame of reference, and have come to know learning as a process of construction in which the knower consciously and deliberately participates. Making choices often involves opportunity costs - one choice precludes others - and commitments often conflict. The best answers often begin with, “It depends...”

## The nature of progress

As students move from one stage to the next, they are apt to experience a sense of loss and can rarely move into the next stage until this “grief” is resolved. Moreover, the typical movement is far from linear. Perry uses images of cyclical and even helical development to suggest the kinds of “progress” students can make, and all three studies note that students often temporarily (or permanently) regress, frequently under the stress of transition. Students may also be in different stages in different parts of their lives: we’re all familiar with returning adult students who have raised children and run businesses enormously complex ventures where most often “it depends,” but who insist in the classroom that we tell them clearly what the right answers are.

## How I use these ideas

The implications for teaching and for curriculum of these findings are profound and complex, especially in a university like ours that has such a diverse student body and correspondingly vague sense of mission. All three studies I’ve here plagiarized offer a number of ways one might use these ideas, but I’ve found a few that have made sense for me, here at A&MCommerce, teaching undergraduates.

1. Understanding cognitive development theories helps me most in dealing with individual students I quoted at the beginning of this essay. Often I can recognize that a student’s anger or frustration stems not from her being too stupid to understand my point but from my failure to pitch my ideas at her developmental stage.

2. This means that issues raised or questions asked in stage three or four will not make sense to stage one or two students, not because they’re dumb or unwilling, but because they’re simply not ready developmentally. They can quickly become frustrated, believing that we’re ma-

liciously or incompetently refusing to be clear, and they may well drop out, intellectually if not physically. Thus, it has implications for the kinds of assignments I can give. Asking freshmen to synthesize information from several sources that disagree, to evaluate conflicting arguments and construct one’s own theory is simply asking questions they can’t even understand. One might as well speak Latin to them. But asking stage I students to make comparisons, to identify similarities and differences can help them to see the legitimacy of differing perspectives, perhaps.

3. Helping students move from one stage to the next also involves a balance between challenge and support. Asking questions, posing issues that lead to the next stage is necessary for advancement, but students can be supported by clear course and assignment structures, by a classroom atmosphere that is supportive, and by a sense of community, and common enterprise. Transitional students often are helped by clear explanations not only of what we expect them to do, but of why we think that activity is valuable and how it will help them learn. In capstones, I often describe for students these theories (in fact, I’ll probably use a revised version of this essay from now on) as a way of showing them how I hope their thinking can improve.

4. As we design our curriculum, University Studies, for instance, we should keep cognitive development theory in mind, not as ‘truths’ but as tools. An understanding of the differences between the stages can help us understand the difference between basic skills courses (Eng 101 or Hist 121, say) and capstone courses. Problems we want to raise for capstone students will make no sense to beginning freshmen, and multiple-choice or information-focused questions will not challenge capstone students to develop intellectually.

The University Studies office has essay/chapter length versions of all three theories, much better than this brief summary, but not as long as each book. Perhaps we can even have some conversation about their uses. Call 8865878 or email ... or whatever.

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