Promoting Psychology Students’ Adoption of Core Disciplinary Beliefs and Values: Three Pedagogical Themes

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It may seem like the height of narcissism, but I am concerned that students in my psychology classes do not appear to think like me; that is, think in a similar way as a psychologist thinks. I do not mean that my psychology students should enjoy the same things that I do or behave in a similar way. Rather, my concern is both deeper and narrower, focusing on psychology students’ adoption of core beliefs and values of psychology, particularly that the discipline is a scientific one.

In support of the claim that psychology students do not share my beliefs about the scientific status of the discipline, consider results from a series of studies using the Psychology as a Science (PAS) questionnaire (Friedrich, 1996). The 15-item questionnaire is a reliable and valid assessment of students’ beliefs regarding the scientific nature of the discipline, using Likert scale ratings from 1 (strongly disagree) to 7 (strongly agree). It includes the following items:

1. Psychological research can enable us to anticipate people’s behavior with a high degree of accuracy.
2. Research conducted in controlled laboratory settings is essential for understanding everyday behavior.
3. Psychological theories presented in the media should not be trusted unless they are supported by experiments.

In a series of studies at my institution, we found Introductory Psychology students only weakly agreed with the claim the psychology is a science, with a PAS score hovering around 5 on the 7-point scale of the PAS (Amsel, Baird, & Ashley, submitted). This finding replicates Friedrich’s (1996) own data drawn from an elite liberal arts college. Psychology students’ weak agreement with core disciplinary beliefs and values is in contrast to the beliefs and values of their instructors, who had higher PAS scores (Holmes, 2008). Surprisingly, there was little, if any difference in the PAS scores of students in lower- and upper-division courses (Friedrich, 1996; Holmes & Beins, 2009), even controlling for their status as majors, minors, or neither majors nor minors (Amsel, et al., submitted), suggesting that students’ disciplinary beliefs and values may resist change over time and exposure to classes in the discipline.

These findings are not encouraging for psychology instructors and their ability to impact students’ core beliefs and values about the discipline. But, is this really a problem that psychology instructors need to worry about? One argument minimizing instructor responsibility for their students’ acceptance of core disciplinary beliefs and values is that students may lack sufficient knowledge of the discipline to understand those beliefs and values. But this assumption does not seem to be the case. Amsel, Johnston, Alvarado, Kettering, Rankin, & Ward, M. (in press) found that Introductory Psychology students could easily adopt their instructor’s beliefs and scored higher on the PAS questionnaire when randomly assigned to answer from their instructor’s perspective rather than their own (self-perspective). The Perspective effect was comparable in size to the Academic Year effect reported by Amsel et al. (submitted). Moreover, students’ professor PAS scores better predicted their anticipated final grade, a finding replicated with actual final grades in a study in which Introductory Psychology students completed the PAS from both the self and professor perspectives (Amsel et al., in preparation). The findings also suggest that higher professor PAS scores were related to changes in students’ self PAS scores over the course of a semester. That is, the more students can think like their professors, the more they come to adopt core disciplinary beliefs and values. Overall,

1 Weber State University is a large (21,000 students), regional, open-enrollment institution in the intermountain west.
the findings suggest that psychology students are not ignorant of or conceptually incapable of grasping core disciplinary beliefs and values. They are just skeptical about the scientific status of the discipline. But their adoption of core beliefs and values and academic success in psychology classes appears to be related to being able to recognize their professors’ disciplinary core beliefs and values.

While we are continuing our research on the impact of psychology students’ understanding of core disciplinary beliefs and values and its impact on their learning and academic success, there are a number of implications of these findings for instruction. I present three pedagogical themes for instructors to consider in order for psychology students to begin appreciating core disciplinary beliefs and values, exposure to which is what we would expect an effective university education in psychology to entail.

THEME I: A FOCUS ON DEEP LEARNING, TEACHING, AND ASSESSMENT
(or, how I started worrying less about what I was teaching and more about what students were learning in my classes)

“Deep learning” refers to an approach to learning that focuses on the substance and the underlying meaning of the information (Biggs, 1978; Marton & Säljö, 1976). It involves a personal commitment to understanding the material, which is reflected by such behavior as reading widely, discussing ideas with others, reflecting on how individual pieces of information relate to larger constructs or patterns, and applying knowledge in real-world situations. Deep learning is contrasted with a surface approach to learning that focuses on the substance of information and committing it to memory.

Surface learning is represented by a commitment to academic achievement (or at least avoiding academic failure) without a parallel commitment to conceptual understanding. The approach emphasizes memorization techniques and dismisses as tangential any time or effort spent on (a) grasping key concepts beyond their treatment in lectures or the textbook, (b) understanding the relations between new and old information, or (c) applying new information to other circumstances.

It is easy to treat these approaches to learning as student characteristics, but there is reason to think that the student’s learning approach is shaped by the instructor’s lecture and assessment strategies (Biggs, Kember, & Leung, 2001). In the past, I tended to elicit surface-level learning from my students by focusing on making lecture information accessible and memorable and assessing only such surface-level information. As important as it is to address and assess surface-level information, it diminishes the importance of the student’s grasp of the deeper conceptual significance or meaning of the information. To promote their adoption of disciplinary beliefs and values, students must work through the consequences, implications, and significance of the information being presented in the lecture or textbook. As an instructor, I began to devote more of my class time and assessment devices to addressing how ideas may challenge students’ prior beliefs, apply to their lives, relate to their other knowledge, or be controversial. The net result was a lessening of concern about what I was teaching about a topic and more about what students were learning.

THEME II: THE VALUE OF META-INSTRUCTION
(or, why I spend so much lecture time explaining why I am teaching what I am teaching)

If a class or even a lecture is a journey for students who may not always understand or appreciate the trip, then the guide to the expedition may well need to regularly point out to the travelers just what terrain they are traversing and why they are doing so. I learned the importance of finding a balance in my lectures between presenting the material to be learned and explaining why I am teaching the material being presented. I define metainstruction as the time in class spent talking about why the information that is being presented is relevant and significant for the discipline. For example, an instructor may appeal to the importance of an objective and systematic approach to understanding individual differences as a justification for the Introductory Psychology lecture on intelligence. Such an appeal, made strategically, may well transform an obscure presentation of a disconnected history of the IQ into a case study of the methodological problems, conceptual challenges, and social consequences inherent in realizing a scientific study of individual differences. Metainstruction makes transparent the central importance among psychologists of a belief in scientific as opposed to intuitive methods to study human beings and the value of objectivity and systematicity over subjectivity or idiosyncrasy. An instructor making such core beliefs and values more transparent may help students to first adopt and later accept them. Finally, in most cases, the metainstruction discussion turns out to be the key take-home message of the lecture. As memorable, engaging, entertaining, factual, and rich as a lecture on intelligence can be, the significance of the material for students’ understanding of the discipline lies in the fact that, after prolonged study, intelligence is less an ill-defined and intuitive concept than a more objectively measured and systematically explored one.
THEME III: THE DEVELOPMENTAL PROCESS
(or, how I learned patience)

In order to teach the core disciplinary beliefs and values, psychology instructors may have to expand their pedagogical goals. It may not be enough for instructors to effectively impart disciplinary information in order for students to learn deeply and adopt core disciplinary beliefs and values. In addition, instructors may have to see themselves as being in the business of transforming students and taking responsibility for ensuring that students acquire the skills, knowledge, beliefs, and identity required to think in a disciplinary manner.

Promoting change and development in students is a difficult and prolonged enterprise requiring patience and commitment. In my experience, instructors may need to promote psychology students’ development in three interrelated ways so that students learn to think in a disciplinary manner. First, psychology students may need to acquire general cognitive skills, such as abstract, hypothetical, and reflective thinking. Although these skills have roots earlier in life, they are acquired during adolescence (Moshman, 2005) and need to be constantly honed like any other cognitive skills. It may be a mistake to ignore the challenges that students have with these cognitive abilities (e.g., Amsel, Klaczynski, Johnston, Bench, Close, Sadler, et al., 2008), and opportunities should be found to promote them in students as part of teaching critical thinking.

Second, psychology students may need to acquire discipline-specific skills, including those related to statistics and research design, in order to think and reason in a disciplinary manner. Although students may well understand these tools on various tasks (Lehman & Nisbett, 1990), they often have difficulty applying them. That is, students who understand critical methodological and statistical standards still may have to be taught to apply those standards to their own or others’ work. It takes practice to learn how to use the tools of the discipline, and it is important for instructors to find opportunities for students to engage in such practice (Ware & Brewer, 1999).

Third, psychology students may need to acquire a disciplinary identity in order to think in a disciplinary manner. This is accomplished by treating students as apprentices and immersing them in authentic disciplinary activities (Collins, Brown, & Holum, 1991). For psychology students, such activities include research projects and practicum experiences, which may have the effect of socializing students into the discipline by laying bare the beliefs and values of psychologists when engaged in professional activities (Hunter, Laursen, & Seymour, 2007).

CONCLUSION

Teaching psychology so that students adopt core disciplinary beliefs and values should not be seen as a hope or wish, but as a central goal of all teaching and learning in the field. As Charles L. Brewer (1993, p. 169) noted, “the fundamental goal of education in psychology, from which all other others follow, is to teach students to think as scientists about behavior.” The APA Guidelines for the Undergraduate Psychology Major (American Psychological Association, 2007) specifies student outcomes wholly consistent with the notion that students are learning core beliefs and values of the discipline. But preliminary evidence suggests that we may not be effective in realizing this goal for all our students. More pedagogical research is needed that addresses how best to teach psychology students to think like scientists about behavior. In the meantime, these three pedagogical themes describe ways I have accommodated my teaching goals and strategies to promote students’ understanding of the discipline.

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REFERENCES


KUDOS!

Welcome New PT@CC Committee Members

The APA Committee of Psychology Teachers at Community Colleges (PT@CC) is delighted to welcome two new members who will join the committee beginning in 2010. Solomon Fulero, PhD, JD, of Sinclair Community College in Dayton, OH, and Lillian McMaster, PhD, of Hudson County Community College in Jersey City, NJ, were elected to the committee in the 2009 elections.

The PT@CC Committee extends thanks and appreciation to Salvador Macias, III, PhD, of University of South Carolina Sumter of Sumter, SC, and Nancy Schaab, PhD, of Delta College of University Center, MI, for their service to PT@CC and their commitment to excellence in the teaching of psychology.

KUDOS!

New TOPSS Committee Officers Elected

Congratulations to the newly elected TOPSS Committee Officers: Jeanne Blakeslee of St Paul’s School for Girls (Brooklandville, MD) has been elected as Chair-Elect; Steve Jones of City of Medicine Academy (Durham NC) has been elected as Member-at-Large, and Kimberly Patterson of Cypress Bay High School (Weston, FL) has been elected as Membership Coordinator. Jeanne, Steve, and Kimberly begin their new positions on January 1, 2010.

The TOPSS Committee thanks Hilary Rosenthal (Past-Chair) of Glenbrook South High School in Glenview, IL; Marie Smith, PhD (Member-at-Large) of Thomas Wootton High School in Rockville, MD; and Viviana Mendoza (Membership Coordinator) of the American Cooperative School in La Paz, Bolivia, for their service on the TOPSS Committee.

MARK YOUR CALENDAR!

2010 APA/Clark University Workshop for High School Psychology Teachers

The sixth annual APA/Clark University Workshop for High School Teachers will be held July 26-28, 2010, at Clark University in Worcester, MA. Workshop facilitators will include Clark University psychology professors and high school teachers from the APA TOPSS. Housing in the Clark campus dorms and materials will be provided for all participants. Travel stipends will also be provided (see web site for details). Application forms and additional information about the 2010 workshop are available online at http://www.apa.org/ed/topss/conf_wkshop.html. The application deadline is April 15, 2010.

This workshop is sponsored by the American Psychological Foundation, Clark University, and APA, with generous support from Lee Gurel, PhD. Please contact Emily Leary at leary@apa.org if you have any questions.


