The Value of Psychology 101 in Liberal Arts Education: A Psychocentric Theory of the University

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Most students who take the general, introductory psychology course (hereafter called Psychology 101) are not psychology majors. They take the course because they think it will be interesting, or because they see connections between psychology and their major field of study, or because it satisfies a curriculum requirement. My argument here is that we should think of Psychology 101 not as technical training for majors, but as an extraordinarily valuable liberal arts course for all. When we teach the course from a broad liberal arts perspective, we serve the real needs of the many non-majors as well as those of the majors. Psychology is today, in many ways, the core discipline in the liberal arts; it is what philosophy was 100 years ago. And Psychology 101, unlike more advanced psychology courses, presents an integrated view of the whole discipline.

More specifically, I will contend in this essay that Psychology 101 is potentially the most valuable liberal arts course a student can take, because it, more than any other course (or certainly more than most other courses):

1. makes meaningful connections to other disciplines,

2. brings students up to date on classic philosophical questions,

3. provides frameworks for understanding oneself and making life decisions, and

4. promotes critical thinking.

The “teaching tips” in this essay all have to do with ways of achieving these four liberal arts goals in the classroom.

Psychology 101 Makes Meaningful Connections to Other Disciplines

No matter what a student is majoring in, he or she is likely to find meaningful connections between that field and psychology. I like to illustrate this point on the first day of class with the following demonstration:

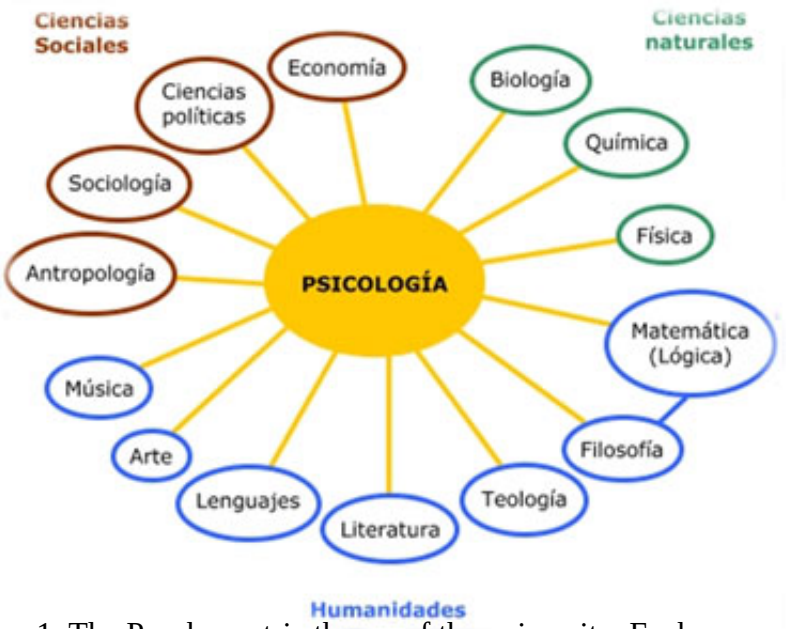

Figure 1. The Psychocentric theory of the university. Each connection between psychology and another discipline represents a meaningful field of research and scholarship.

I begin with a transparency or Power Point slide depicting, in clusters, some of the disciplines taught in the liberal arts college. One cluster, labeled “Natural Sciences,” includes biology, chemistry, and physics. Another, labeled “Social Sciences,” includes anthropology, sociology, economics, political science, and history. A third cluster, labeled “Humanities,” includes art, music, languages, literature, theology, philosophy, and (as a branch of philosophy) logic & math (with math lying between the humanities and natural sciences). Then, after describing this structure and its rationale, I ask rhetorically, “Where does psychology fit in all of this?”

I then go to the next slide or transparency, showing the previous structure but now including PSYCHOLOGY as a big golden sphere, lying right in the middle, with rays connecting it to each of the disciplines that form a circle around it (see Figure 1). “Ta-dah,” I say, “here we have it — Peter Gray’s Psychocentric Theory of the University. Quite comparable in its brilliance to Copernicus’s Heliocentric Theory of the Universe. Psychology is the shining sun in the center of the university, which illuminates all of the other disciplines.”

I say all this with a twinkle in my eye and my tongue planted firmly in my cheek, but then I go on to make a serious point. The connections between psychology and the other disciplines, illustrated by the sunrays in the drawing, are real connections. Substantive subdisciplines lie on each of those rays, consisting of people both in psychology and in other departments, who often work together. To illustrate this point, I go from ray to ray and say a few words about each of the connections illustrated. Some of these interdisciplinary realms — such as biopsychology, psychophysics, social psychology, psycholinguistics, and cultural psychology (connecting psychology and anthropology) — are major subfields of psychology.

It is not surprising that all these connections exist. Psychology is the study of the human mind. The humanities are what human beings everywhere do with their minds, the social sciences study the

products of human minds working in social groups, the natural sciences rely on perceptions and logical processes that emanate from the human mind, and the mind is a product of a physical-chemical-biological structure (the brain) that is a subject of natural science. So, of course psychology lies in the center of it all! It would be impossible for people from any other department to draw a diagram nearly as elegant as mine that put their discipline in the center. As we go through the course, talking about each topic in psychology, I make a point of reiterating the relevant interdisciplinary connections.

Psychology 101 Brings Students up to Date on Classic Philosophical Questions

• Does free will exist, or are we robots, controlled deterministically by forces outside of us interacting with mechanisms built into us?

• Do our perceptions reflect reality? (Is my shirt really red, or do I just see it that way?)

• Where do our ideas and knowledge come from? Do they come entirely from our experiences, as Locke and other Empiricists believed, or are we born with certain ideas and knowledge, as Kant and other Nativists believed?

• Are people basically good, as Rousseau believed, or basically evil, as many Christian philosophers believed?

These are the kinds of questions that philosophers used to debate and that provide much of the core of the history of Western thought. Such questions live today in psychology. We address these questions with modern evidence and logic; we don't just cite the opinions of long-ago philosophers. Indeed, nearly everything that we talk about in Psychology 101 can be related meaningfully to one or more of the classic philosophical questions. In most cases, the questions as classically stated are the beginning points for our phrasing of more refined questions, and the best answers that we can give are conditional and complex. For example, the question of free will might be answered one way or the other depending on just how you define free will. We may be machines, but we are extraordinarily complex decision-making machines. The philosophical question of free will can tie nicely into a discussion of what we know and don't know about the brain's decision-making and behavioral control mechanisms. As another example, the Nativist/Empiricist debate lends itself nicely to a discussion of the interaction of innate understandings and of sensory experiences in all aspects of mental development, including the development of language and of understanding of the physical and social worlds.

Psychology 101 Provides Frameworks for Understanding Oneself and Making Life Decisions

According to the Oracle at Delphi, in ancient Greece, the first task of a scholar is to "know thyself." When students are asked what they hope to get out of the general psychology course, their most common answer is that they want to understand people, including themselves, better, and they want knowledge that will help them make good decisions in their personal and professional lives (see Nelson & Nelson, 2005). We should respect this desire of students. What better reasons could they possibly have for taking general psychology or, for that matter, for enrolling in the college or university? Nearly all topics in psychology really are relevant to the questions that students bring with them to the course.

Some units of the course are very obviously related to the life issues that interest students. These include

the units on human development, social psychology, and personality. The other units are also relevant, but we may have to take special measures to show that. One method that I sometimes use to ensure that my lectures are relevant to students' interests is the following: Before we get to a particular topic — before students have read the chapter on that topic and before I've lectured on it — I'll ask students to write out honest questions they have on that topic.

For example, before getting to the chapter on memory, I'll ask something like this: "What have you noticed about your own memory or forgetting that has intrigued you? What questions about memory have occurred to you in the course of your life or occur to you now that you would like to know the answers to?" After class, I read the students' questions and group similar or overlapping questions into categories. Typically, the questions can be grouped into somewhere between 10 and 15 categories. Then, when I lecture on memory (or whatever the topic is), I'll use their questions as the structure for everything I say. In addressing their questions, I'll bring in the terms, models, and ideas that the textbook chapter uses, but I'll organize everything around their questions. I'll focus especially on questions that lots of students asked but also on questions that seem particularly interesting, even if just one student asked it.

This method has worked well, in my experience, not just for the topic of memory, but also for sensory systems (questions about vision, hearing, taste, smell, and pain), emotions, and motivation. It is important in all cases to veer students away from trying to write academic sounding questions and toward writing, in their own words, the kinds of questions they have really wondered about and might have discussed with their friends.

Psychology 101 Promotes Critical Thinking

In all my years of reading the teaching goals statements of people applying for jobs or promotion in academic psychology, I have yet to find anyone who did not say that what he or she tries most to do is promote critical thinking. If there is anything that we psychologists agree on, it is that critical thinking is important. And we have good reason for such agreement. Especially now, with such easy access to information, there is little need to commit a lot of information to memory, but lots of need to know how to evaluate information. From a liberal arts perspective, it is hard to imagine any objective more fundamental than that of improving students' critical thinking. Indeed, one definition of liberal arts education is that it is education that liberates the mind from the bondage of habit and custom.

The good news is that we psychologists are pretty good at teaching critical thinking. Several research studies have revealed that psychology majors gain more in critical thinking over their undergraduate years than do majors in other disciplines, including those in the natural sciences and humanities (Lawson, 1999; Lehman & Nisbett, 1990; Williams, Oliver, Allin, Winn, & Booher, 2003). In particular, they become better at evaluating evidence and arguments and at asking the questions that must be answered to judge whether or not a statement is convincing. In what follows, I'll describe briefly three categories of ways by which we, as teachers of Psychology 101, can and often do promote the critical thinking of our students.

1. The explicit teaching of skepticism and of methods for evaluating evidence.

Most of us elaborate on the value of skepticism and present methods for evaluating evidence in the unit

dealing with research methods and statistical reasoning, but, ideally, we also do it at other places throughout the course. Leshowitz, DiCerbo, and Okun (2002) have described one excellent way to do this. They held recitation sections for which students were asked to read certain articles in the popular media that made psychological claims, and the task within sessions was to debate and critique each article. For example, one article was a piece from *Time* magazine entitled, "The Lasting Wounds of Divorce." It described case histories of young people who had troubled lives after their parents were divorced, and it quoted a psychologist as concluding the following from her study of children with divorced parents (which had no comparison group): "*Almost half of children of divorces enter adulthood as worried, under-achieving, self-deprecating and sometimes angry young men and women.*"

If we read this quotation (and the rest of the article) uncritically, divorce seems to have terrible effects on children. But if we read it critically, we are left with many questions and no firm conclusions. What does it mean to say that "almost half" were "sometimes angry"? Isn't *everyone* sometimes angry? And isn't everyone at least to some degree, at times, "worried" and "self-deprecating"? And, statistically, anywhere but in Lake Wobegon, wouldn't we expect half of the children (not just "almost half") to be under-achieving, if under-achieving means below the median in achievement? The questions that students raise lead quickly to discussions of the need for operational definitions and some kind of comparison group. Students can, from common sense, generate appropriate criticisms, and their learning is far more potent when they do so than when we do it for them.

2. The implicit teaching of critical thinking.

Perhaps the most effective way to teach critical thinking is to model it. Our job as lecturers should not be primarily to present information; the textbook can do that best. Instead, we should be flesh-and-blood examples to our students of people who think critically. Our lectures should be not about facts to memorize, but about ideas to think about, and in our lectures we should implicitly model such thinking. For example, instead of lecturing on Freud, or on Freud's beliefs, or on definitions of all of the defense mechanisms, I choose one of Freud's most interesting and still-relevant ideas and lecture on that, presenting the best understanding we have today concerning that idea. In the lecture, I describe Freud's evidence for this idea, but I would also describe current research that tends to support, refute, or delimit the idea. I define some terms, but the terms are secondary to the ideas. The students become involved in a process of examining evidence for and against an idea, not a process of memorizing names and terms. (I have elaborated on this method of teaching much more fully elsewhere — see Gray, 1993, 1997.)

My impression is that we psychologists typically model critical thinking in our classes more fully than do instructors in other disciplines. We do not see our field as being comprised of indisputable facts or inarguable opinions; rather, we see it as a collection of ideas to be supported, refuted, or delimited through evidence and logic. Perhaps because of the nature of our subject matter, we are more sensitive than are, say, biologists, to the kinds of errors in reasoning that can lead to false conclusions. We convey that sensitivity implicitly in our manner of teaching.

3. Teaching psychological content that has to do with critical thinking.

Psychology is, in part, the study of thinking. By teaching students some of psychology's discoveries about thinking, and particularly by making students aware of biases affecting thinking, we can help them become better thinkers. If you go through the textbook that you use, you can make a list of many ideas —

from different parts of the book — that have to do with thought. The list would include biasing effects of social context (e.g. conformity biases), self-serving or defensive biases, biasing effects of mood, biasing effects of culture, and so on. Many of these effects can be demonstrated in class, illustrating to the students that they really are susceptible to them. For example, I sometimes demonstrate the group polarization effect on thought by having students rate the direction and strength of their belief on some issue that is meaningful to them, such as the suggestion that we should from now on use only essay tests, not multiple choice tests, in class. Then I divide the class into groups based on their initial response, putting like-minded people together for further discussion. Then, after the discussion, I have them rate the strength of their belief again. The result, every time I've done it, is that opinions become more extreme after the group discussions than they were before.

I also find it useful, near the end of the semester, to present a review lecture devoted to critical thinking, in which I review all of the various ways, discussed earlier in the course, by which our thinking is affected by context, self-serving ends, specific wording, mood, and so on. When students understand these influences, they have the potential to take them into account in their own thinking and thereby to improve their thinking.

Conclusion

If I have convinced you that Psychology 101 is the most valuable course that you could possibly teach, I have done my job. The course should be taught by the smartest, most broadly knowledgeable, most philosophically inclined, and most dedicated teachers in the department. And, contrary to the trend everywhere, it should be a two-semester course, not a one-semester course. The course is too big and too important to liberal arts education to cram into a single semester. ?

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