On Teaching and Learning

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On Teaching and Learning publishes articles and essays on aspects of pedagogical practice and on research that has implications for teaching.

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On Matters and Manners
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The two sides of the organism require a reconciliation in which emotional experiences illustrate a conceptual justification, and conceptual experiences find an emotional illustration. 2

Translation: It would be nice if one could enjoy the pleasures of scientific speculation without being depressed by the implications of one’s conclusions. 3

The first quotation comes from Alfred North Whitehead, written more than sixty years ago in his Process and Reality. For this rather impressive assertion, Ronald Englefield provided the simple translation that follows it. It appears in his delightful Critique of Pure Verbiage. Englefield was concerned with Whitehead’s attempts to reconcile science and religion, but the quotation is apt here. It is apt because the matter of personal “voices,” whether men’s or women’s, black or white, old or young, etc. has to do with a dilemma. This is the dilemma that we face when we seek at one and the same time to make reliable generalizations about the nature of things in the world, to express how we feel about our personal experience with some specific examples of those things, and to do both of these coherently while observing some common standard of validity in our assertions. Parenthetically, an additional serendipitous aptness arises from the fact that Englefield was determined to promote simple writing. His mission was to show that behind the pomposities of much writing lie some simple statements which, when uttered, dissolve the solemnity with which the original pronouncements had been anointed. Of the several things that I would like to do in this essay, one will be to penetrate the opacity of terms such as “academic discourse,” “privilege” and so forth, to see if they can be stated more directly, and thus be examined with greater clarity. But that will come later.

First I would like to draw a distinction between the content or matter of discourses and debates on the one hand, and the courtesy or manner with which they are conducted on the other. A participant in a discussion may rebut a proposition put forward by another by pointing to contrary empirical evidence, to internal contradictions in the proposition, and so forth. The “manner” of the rebuttal may cover a spectrum of politeness from, “I wonder if you have considered the fact that...” to “How can you be so stupid to say what you have just said, given the fact that...” This latter ad personam comment may be exacerbated by wording that suggests that the alleged “stupidity” can be attributed to the gender, ethnic origin, age or whatever of the target. Difficult though it may be to accept, the validity of the content and relevance of the rebuttal is not dependent upon the courtesy with which it is delivered. If the counter evidence really does rebut the initial proposition, its pertinence is not abolished by the patronizing or abusive language that was employed.

This is not an argument for the tolerance of discourtesy. Abuse inhibits constructive argument: it should be opposed and identified for what it is wherever and whenever it occurs, in the first place because there is an absolute value to the maintenance of mutual respect. But there is another crucially important reason to oppose it. Argument, the contest between ideas and their supporting evidence, is essential to the growth of knowledge. We would all, of course, like to believe that scholars and scientists are eager to check and modify their views in the light of new evidence. There is a widespread image of the archetypical scientist — someone painstakingly obtaining objective data, testing every side of a question and disregarding personal interests. Like
other archetypes, however, this flawlessly competent and dispassionate scientist does not exist.4

Fortunately, the advance of knowledge does not depend upon the self-criticism of individual researchers. It depends on the criticisms of other researchers. Criticism, in this context, does not mean mere expressions of dislike, but the production of telling arguments and data. For this to happen the critic must not be subject to constraining personal abuse. Not only will the critic suffer needless personal distress; the operation of the scientific method will itself have been betrayed.

Readers will at once recognize this as the position of an unapologetic admirer of the philosophy of science proposed by Karl Popper. It is worth illustration by an extended quotation here:

Objectivity is closely bound up with the social aspect of scientific method, with the fact that science and scientific objectivity do not (and cannot) result from the attempts of an individual scientist to be “objective,” but from the friendly-hostile co-operation of many scientists.

He goes on to add:

Two aspects of the method of the natural sciences are of importance in this connection. . . . First there is something approaching free criticism. A scientist may offer his theory with the full conviction that it is unassailable. But this will not impress his fellow scientists and competitors; rather it challenges them: They know that the scientific attitude means criticizing everything, and they are little deterred even by authorities. Secondly, scientists . . . try very seriously to speak one and the same language. . . . In the natural sciences this is achieved by recognizing experience as the impartial arbiter of their controversies. When speaking of “experience” I have in mind experience of a “public” character, like observations and experiments, as opposed to “experience” in the sense of more “private” aesthetic or religious experience; and an experience is “public” if everybody who takes the trouble can repeat it. (Italics in the original).5

Opposition to abuse is easier urged than done when the targeted critic has less formal power than the perpetrator. Formal power here means the kind of non-reciprocal relationship in which one person can penalize the other, e.g. give grades, fire, withhold promotion, etc. Indirect opposition can be carried out through information programs designed to draw the attention of potential perpetrators to the problem. But in a university it is most important that we as teachers recognize our clear duty to our students to protect them from personal abuse, witting and unwitting, especially abuse by ourselves and those who teach with us. Not only are we damaging the student; we are setting an example from which those of our students who survive to enter the academic profession will have learned that sarcasm, derogation, and patronizing are some of the tools of the teacher’s trade. But it is not our duty to protect students from rebuttals, including vigorous and enthusiastic rebuttals, when these are courteously delivered. It is in fact a failure of our duty if we so formulate the tasks of a class discussion that while anything may be expressed, nothing is to be rebutted.

None of this has anything uniquely to do with specific issues of gender or other group differences. For an egregious example of the genre of the authoritative put-down practiced by a well-known male on other males, we need only turn to Freud. He is commenting upon the “defections” from psychoanalysis of Adler and Jung:

But I had not expected that anyone who had reached a certain depth in his comprehension of analysis could discard it again, or ever lose it. And yet everyday experience with patients had shown that total rejection of all analytical knowledge may ensue whenever a strong resistance arises at any deep level of the mind; one may have succeeded in laboriously bringing a patient to grasp some parts of analytical knowledge and to handle them like possessions of his own, and yet may see him, in the power of the very next resistance, throw all he has learnt to the winds and defend himself against it as in the first days of his treatment. I had to learn that just the same thing can happen with psychoanalysts as with patients under analysis. . . . I cannot altogether-
er avoid some analysis in explanation of these two opposition movements. Analysis is not suited, however, to be used in controversy; it presupposes the consent of the analyzed; the situation of analysis presupposes a superior and a subordinate. ... I do not propose to deal with the possible truth in the substance of the theories rejected, nor shall I attempt to refute them.6

So there we have it. Opposition is to be explained away ad hominem as the result of “strong resistance,” i.e. a kind of pathology in the critic; and the explanation of this disorder is to take place in a framework that demands subordination to the authority of the explainer. No consideration is to be given to empirical evidence. That, Freud remarked, was to be left to others.

Women students at Harvard are put down from time to time by some natural scientists. When they complain about this, quite rightly, they do not argue that they are being prevented from doing science in a “woman’s voice”; they complain that they have been discouraged from doing science in a scientist’s voice, or indeed in any voice. Unfortunately, the promotion of the idea that for every topic there is a man’s voice and a woman’s voice (amongst many other possible voices) operates to perpetuate the notion that women “cannot do” science. Far from liberating potential women scientists from the inhibiting effects of discriminatory comments it has the unfortunate, unintended effect of supporting the (false) premise that there are basic, insoluble gender differences in the ability to produce scientific knowledge.

Women scientists who argue that scientific observation has no gender can point to the fact that the laws of science operate impartially. The operation of gravity will cause men and women alike to fall to the ground if they should try to fly by flapping their arms. But, it may be asked, is this situation equally valid, or even relevant, for a discussion in the social sciences and humanities? Surely, some might argue, gender affects the “voice” adopted, for example, in literary criticism or developmental psychology. Which brings us to the matter of “academic discourse” in general.

“Academic discourse” is used pejoratively in some recent feminist writing to mean a style of speaking and writing in which the personal feelings and experiences of the individual speaker are not given the status of evidence, relevant to the topic of discussion. In their place, empirical findings and the generalizations to which they give rise are presented in impersonal terms, which terms, it is claimed, are bad and unfortunate. It is allegedly bad to create the illusion of “a disembodied knowledge than cannot be questioned, whose author is inaccessible....” It is bad that such discourse serves “not only to obscure the influence of the personal or subjective but also to give the impression of divine origin - a mystification composed of sibylline statements supposedly emptied of the academic ‘dross’ of the self (Adrienne Rich, quoted in Margolis, this journal).

Resisting the temptation to comment on the gender implication of the reference to “sibylline” statements, I will turn instead to the essential kernel of these assertions. It is not clear to me how an author can be said to be “inaccessible” except in the general sense that the writers of what we read often live too far away for us to speak to them face to face. When Adrienne Rich wrote the words quoted above, she actually began with “It seems to me that the form of many communications in academia...” (my italics). The introduction of the reference to herself via the phrase “It seems to me,” does not make her any more accessible to me, the reader, than would be the case if she had not begun in that way. If I disagree with her, or want to discuss the matter with her, I shall have to write or call her. The personal wording has not created access. Nor does it tell me anything specific about her biases, of which I must now presumably be vigilant. Personal language neither validates nor undermines the empirical content of the allegation that academic discourse gives “an impression of divine origin.”? To how many people does it give this impression? How do we know that it gives this impression to anybody other than the person making the statement? The statement is an assertion that requires us to obtain empirical evidence of the impressions gained by a lot of listeners to academic dis-
It is true that the “It seems to me” phrase has a desirable element of honesty in that it suggests that there may be no such empirical data; the reader is being fairly warned that this is just one person’s undocumented view of the matter. If so, it is of undoubted value to those who are interested in the unique experiences of Adrienne Rich, but it tells us nothing of the general nature of “academic discourse.”

Ironically, the fact that her statement is invoked in support of a particular thesis hints at an assumption that the personal voice of a distinguished figure in literature, Adrienne Rich, will have the necessary authority to establish the general truth of the thesis, and will presumably serve in lieu of the impersonal data that is more laborious to collect. This reliance on personal authority rather than on data is, of course, exactly the state of affairs that academic discourse evolved to prevent.

There are other complaints about academic discourse, one being that it is hard to understand and that its difficulty is a power maintenance device designed to control those who are having difficulty in making sense of it. Now there is no doubt that discourses of all kinds evolve their own terminology, and that it takes time to learn what the terms mean. Often this terminology gives a specific and narrower meaning to words that also have broader and more common meanings. Students do not come to the university already fluent in the language with which the topic area is typically discussed and examined. This is something that has to be learned. Teachers teach it to students, a process that is designed not to perpetuate a teacher-student power relationship but to reduce the inevitable power relationship that the student’s initial ignorance and lack of initiation creates. Why else, after all, surrender the power conveyed by “sibylline” utterance by explaining to the powerless what the terminology means and teaching them to make it their own? If students, male or female, speak, think and feel in the same “voice” at graduation as they did as freshmen, what has been gained in the intervening years? Surely learning is a more reliable road to empowerment than ritualized empowerment is to learning.
ence can be dangerously misleading, and that we need the constraints of systematic observation and objective critique to correct our individual biases. Student experiences and emotions may well find their way into a classroom discussion. However, the teacher is rarely in a position to mediate these experiences and emotions during or even after class. While students will surely react to course material in the light of their own emotions, and indeed may benefit from the intellectual energy kindled by such emotion, students also cannot be allowed to believe that intensity of feeling is the criterion of truth, or that personal experience should be exempt from a rigorous testing of ideas.

Critics of academic discourse often employ the term "privileged" in reference to its communications, and they deny and reject this seeming "privilege." The denial is accompanied by a demand that other methods of discourse be equally, or even preferentially, privileged. These other styles and methods frequently come from the broad spectrum of feminist thought or from some other ideological framework. A strongly held view is that the existing privilege has been created by a kind of conspiracy, conscious or unconscious, with the conspirators being white, professional, upper-middle class, and male. The successful operation of this alleged conspiracy is regarded as aided and abetted by the dominance of academic discourse.

Opportunity for confusion is plentiful here. For example, are we talking primarily about the privileges accorded to differing sets of social human values reflected in different discourses, or are we talking about the effectiveness of different technical methods intended to achieve the goals of those values; in short, are we talking about ends or about means? Thus the question of whether or not war is ever morally justified is a proper topic for discussion in a university. The question of whether ethnic conflicts in certain regions of the world can be solved with least ultimate cost in human life more readily by war than by diplomacy is another appropriate but different topic. Whether the nation has the moral right to draft its citizens into military service is one topic, and whether an army of pressed troops is as effective as an army of volunteers is another and different topic. Final answers to value questions would, if ever reached, effectively reduce the options available to answer the means questions. If war is never morally permissible, then the question of its merits vis-a-vis diplomacy becomes irrelevant. Unfortunately, as we all know, many classic moral questions have proved intractable to simple final answers, mainly because different values come into conflict in actual circumstances. Thus some find themselves in dilemmas over such questions as the morality of World War II. Should we resist the Nazis of the future, with all the loss of life that would be entailed in that decision, or should we remain passive while future Belsons and Auschwitzes proceed with their programmed tasks? If we opt for armed resistance we may agonize over the lives that will be lost, but we also have to get on with the task of deciding the most effective way to fight the war.

Circumstances opportune for the resolution of questions of value, i.e. ends, may be quite different from the most effective circumstances for answering questions of method, i.e. means. Even so, if we are to solve either of these questions we need to do more than simply express our convictions and feelings. We need to be able to present arguments sufficient to persuade those who disagree with us to change their convictions in spite of their feelings, or even to be able to recognize the bases upon which we might change our own. Both of these tasks, the resolution of value questions and the resolution of method questions, are tasks for men and women together. Neither has priority of talent or sensitivity in deciding the proper answers. The voice to be used is not given by gender, but by the nature of the question being asked.

It would be disingenuous to pretend that matters of value do not often get entangled with matters of method in classroom discussion. A good teacher will help untangle them (or, better still, will lead the students to discern the entanglement so they can better untangle them themselves).
Disentanglement allows discussion to proceed with the possibility of resolving one set of issues, either value or method, without unproductive expressions of cross-purpose.

Another meaning of the demand for equal privilege seems to be that personal conclusions arrived at by methods that do not follow the scientific paradigm should be respected, supported, and in general received as well as those that are produced by that paradigm. More crucially, it is argued that they should be regarded as having a truth status equal to that which is accorded to the replicated findings of science. Reduced to simpler elements, this seems to mean that my expressions of emotion about, for example, the horrors of a fatal disease should be regarded as being in the same epistemological category as scientists' statements about its origin and treatment.

Respect for a particular method cannot be conferred by simple political fiat. The natural sciences have gained public respect in large part because of the practical benefits that have accrued from developing the base of scientific knowledge. By the same token, the suspicion in which the natural sciences are sometimes held derives from observing the dangers of science when it is misapplied. Neither of these attitudes proceeds from an intellectual assessment of the elegance of the "scientific method." Both reflect instead an assessment of that method's concrete results, for good or ill. This concentration on concrete benefits may be crass; it may be unfortunate that the beauties of the pursuit of knowledge for its own sake are not always sufficiently appreciated by the public who are asked to pay for them, but there it is. Public status, in short, is granted to methods of any kind insofar as they have a beneficial impact upon the lives of those who are asked to do the respecting. In this realm, at any rate, status is earned. It does not come by demand alone.

We are approaching the end of a century in which great disasters have been visited on us all by militant authoritarianisms of the left and right. They have had little use for empirical verifications of their various ideologies. Irrationality as a principle, emotions as the overriding basis for judgment and action ("thinking with the blood," "thinking with your class") dichotomous thought ("those who are not with us are against us")—all warn us of the fragility of the barrier which critical rationalism provides against some quite dark consequences. Recent setbacks to regimes based upon these principles should not mislead us into forgetting the intellectual foundations on which they were built.

Nothing in the discussion so far negates the reasonable proposition that different people may thrive educationally under different methods of instruction. Lectures, tutorials, group discussion, computer-programmed learning, private reading, etc. may have differential value in furthering the educational achievement of individual students. It is also possible that variation in their effects may have some modest correlation with gender, social class, age and so forth; but from what we know of the general nature of the findings of behavioral science research, it would be very surprising if gender differences were sufficiently large to justify assigning students to particular methods of instruction on that basis. It is also possible that different methods may have no discernible, immediate advantages in the transmission of knowledge and skill, but may indeed vary in terms of their relative pleasantness for the student.

For those who chafe at the tight confines of formal method, there is consolation. Many other good things happen to students in the course of their university years. They happen as a consequence of friendships, conversations, bull-sessions, parties—all of the host of activities that come with college life. Teachers may have little or nothing to do with them; perhaps the less the better. There are no formal rules for these discourses other than the general principles of free speech and the conventions of courtesy. Emotions are expressed, dreams described, prejudices paraded, and values debated. There is no definition of appropriate "voice." These discourses are not "supervised." There are no examinations. Degree credit is not granted for them, nor need it be. There is, after all, more to life and learning than takes place in the seminar room.
The Revision Process: A Tool for Conceptual Development

Sara E. Rimm, Dana B. Markow, & Marie T. Balaban

Recent debates over the place of writing in the undergraduate curriculum have not gone unnoticed in psychology. Although Calhoun and Selby (1979) suggested that a separate course on writing in psychology be added to the requirements for psychology majors, the more popular current view advocates writing "across the curriculum." Integration of writing into the curriculum of a specific field, such as psychology, provides the student with a context for the development of writing skills. In addition, students' knowledge of the discipline can be improved through the use of writing exercises (Spiegel et al., 1990); thus, from the writing-across-the-curriculum view, learning to write complements writing to learn.

According to Light (1992), there is a strong relationship between the amount of writing and the student's level of engagement in a course. The level of engagement can be measured by time devoted to the course, the degree of intellectual challenge to the student, or the student's expressed interest in the subject. Light reported that students' level of engagement was more strongly related to the amount of writing than to other factors such as class size or the reason the student enrolled in the course.

In order to improve student writing skills and conceptual competence, we have modified the writing requirements in the undergraduate psychology course, Human Development. Approximately 50 students typically enroll in this course each year. Students come to the course with diverse backgrounds: they range from psychology concentrators to non-concentra-

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