

## Teaching the Rational/Emotional Mind \*

### Teaching the Rational Mind

Today I speak to you about my teaching odyssey at UNH, an odyssey that began 43 years ago in 1966. At the time, my brother Dodge and I were co-authoring an introductory textbook. It was natural for me, therefore, that I would teach introductory psychology, which included several large sections of students. I found the task of teaching and lecturing to such a large group of students to be challenging and, at times, both very satisfying and frustrating.

One of my chief frustrations had to do with realizing that many students did not read the textbook or, if they did, they retained very little of what they read. I wanted very much for all, or at least most, of my students to do well in the course, but sadly, many performed quite poorly. I was fascinated by BF Skinner's approach, behaviorism, especially his principles of reinforcement. One of Skinner's colleagues, Fred Keller, came up with a system of instruction first described in the premier issue of the journal *Applied Behavior Analysis*. The title of the article was "Goodbye Teacher...", and it was based on Skinner's idea, stated back in 1948, which I quote: "The lecture became obsolete with the invention of the printing press." (Skinner, 1948, p.38).

Keller's approach did not include lectures. Instead, in oversimplified terms, it included five features -- clear learning objectives, small units, multiple opportunities, and mastery requirement, and self-pacing -- that encourage students to study and master the contents of their textbooks. With much excitement and effort, I developed a modified form of Keller's approach, which for a number of years I used in my teaching of introductory psychology.

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I had considerable excitement about my modified Keller method. I also had questions and doubts that prompted me to conduct a study comparing the traditional lecture method

with my modified Keller system. For an in vivo study, graduate student Deborah DuNann Winter and I developed what we believed was a rigorous experimental design that included both between and within participants comparisons (DuNann and Fernald, 1976). The modified Keller approach proved to be more effective than the lecture.

One anecdotal indicator was students behavior at the final exam. With the lecture method, I was accustomed to many students offering various excuses (medical, sick or dying grandparents, and so forth) for not being able to take the exam at the designated exam time. At least a handful of students would arrive late for the exam. Even more obvious were the unhappy and even frightened looks of many students. Such was not the case for students receiving the modified Keller approach. Medical and other excuses for not attending the exam were rare. While waiting for the exam to be handed out, students spoke easily in lightheartedly with me and with the other students sitting near them. Under my modified Keller system, they already had demonstrated mastery of the material on which they would be examined. They expected to perform well on the exam.

The students' expectation was justified. On the final exam, students in the Keller condition scored substantially and statistically significantly higher than students in the lecture (control) condition (DuNann & Fernald, 1976). This study and other similar studies clearly indicated the effectiveness and superiority of the Keller method (Kulik, Kulik, & Cohen, (1979). Back in the 50s and 60s in his two books, *Teaching Machines* and *The Technology of Teaching*, Skinner clearly detailed the principles of reinforcement necessary for efficient and effective teaching. Virtually all of the principles he described are part and parcel of computerized instruction today. In retrospect, we can see that his earlier statement might have been modified: "The lecture became outmoded with the invention of the computer."

One day, I received a note from the Dean, who requested that I come to his office. He Dean was concerned about grade inflation and thought that I was a major contributor to the problem. I told him that students learn more under the Keller method than under the traditional lecture method. He wondered how I knew this to be the case. I told him about my research. He wanted to see the evidence. At a subsequent meeting I showed him my findings. I shall never forget the look of mixed emotion on the Dean's countenance as he graciously acknowledged the effectiveness of my modified Keller approach.

Ttoday the Keller method is not widely employed. However, much recent research has been conducted on a very similar instructional strategy, the testing effect (Roediger, H.L.III and Karpicke,J.D.(2006), an effect being studied at a number of institutions, including here at UNH by my colleagues Victor

Benassi and Gary Goldstein. The testing effect, simply stated, is this: When students are given frequent tests, their learning is enhanced. The traditional system of lectures and two exams, mid-term and final, is not as effective. These findings are completely consistent with my observations of the merits of the Keller method. Including findings regarding the testing effect in preparing programs for computerized instruction is certain to greatly enhance college students' learning.

I felt satisfied by my efforts to assist students in their learning of introductory psychology. I also experienced a nagging sense of disappointment. My students' learning, I conjectured, was temporary, lasting for no more than a day or two after they took the final exam. This concern was brought home to me when a departmental colleague introduced me to a UNH faculty member who had taken my introductory course back in the 70s. I asked the question a teacher probably should never ask, "What do remember from the course?" She replied, "I remember that you wore an Eskimo coat." The bad news is that she recalled nothing about the content of the course. The good news is that I still have my Eskimo coat!

Thus far my talk has concern the rational mind. Is this not as it should be? As a science, psychology depends heavily on rationality. The task we academicians assign ourselves as teachers is to educate the rational mind. Indeed, the content of introductory psychology is about developing a critical/rational perspective on human behavior. Such a perspective includes both critiquing published studies and posing new studies. Introductory psychology students learn, hopefully, the difference between cause and correlation. Our majors learn how to design experiments that clearly identify causes and correlates of behavior. In the introductory course and in all the courses that follow, psychology students are encouraged to develop their critical and rational faculties.

### West Coast Epiphany: Teaching Paradigm Shift

From 1978 to 1980, with the approval of the Dean, who may have wanted to deal with grade inflation by getting Fernald out of town, I assumed the position of Exchange Professor at Sonoma State University (SSU) in California. At the time, SSU was the mecca for humanistic psychology, having as faculty members four past presidents of the American Association for Humanistic Psychology. The well-known humanistic psychologist, Carl Rogers, was instrumental in the founding of SSU in the early 1970s. Being and working among the psychology faculty at SSU had a profound effect on me, amounting to what I realize now was a teaching paradigm shift.

Rogers's many books and papers influenced me greatly. I wish to read to you a passage, edited by me for the sake of brevity, which sums up much of Rogers's perspective. The passage comes from a talk he delivered sometime in the 1950s at a conference organized by Harvard University and entitled, "Classroom Approaches to Influencing Human Behavior."

... I am only interested in learnings which significantly influence behavior... the only learning which significantly influences behavior is self-discovered, self-appropriated learning... (which) cannot be directly communicated to another... (Therefore,) I have lost interest in being a teacher... (Rogers, 1961, p.276-7).

Rogers's words resonated deeply within me. In this passage, Rogers was addressing my concerns about lecturing and testing intervals (e.g., mid-term and final exams) that encouraged cram-and-forget learning. Rogers would not have been surprised by my former student remembering only my Eskimo coat. His words planted seeds that led me to search for instructional interventions that would make a difference in students' lives, that would "significantly influence" their behavior. It seemed that there must be some better ways to promote learning that significantly influences students' behavior.

### Teaching the Emotional Mind

Upon my return to UNH, the psychology chair at the time, David Leary, asked me to teach the Department's senior-level Counseling and Internship courses, which up until the time had been taught by part-time faculty members. David asked me to "put backbone" into the courses. I took David's charge seriously, having no idea where this teaching assignment would lead me.

Three concerns prompted me to address students' emotional as well as rational minds. First, doing so, I imagined and hoped, would facilitate learning that significantly influenced their behavior. Second, the vast majority of students taking the counseling and internship courses intend on careers involving some form of human service, for example, school guidance counselor, social work, family therapist, and so forth. These professionals typically work with individuals coping with emotional difficulties. Thirdly, and most importantly, students do not bring only their cerebral cortexes into the classroom. They also bring their limbic systems, which concern emotions, and their lower brain centers, which concerns their sexuality and flight-fight (fear-anger) reactions. Given these concerns and circumstances, I thought it necessary, perhaps even mandatory, to address the emotional mind in these two courses. But, how would I do this? How should I proceed? To answer this question, I consider three aspects of college teaching: assigned readings, the classroom, and essay questions.

### Assigned Readings: The Monte Carlo Approach

The Monte Carlo Approach (MAC), and instructional procedure I developed a number of years ago, is so named because chance, with the role of the die, determines to some extent what happens at each class. This, of course, brings surprise, spontaneity and emotion, including some amount of tension, into the classroom. Learning that significantly influences behavior generally includes an emotional component. This proposition, which has plenty of research to back it up, guides my teaching of the emotional mind (Bain, 2004).

Instructions, edited for brevity, included in the course syllabi are as follows:

A quiz may or may not be administered in each class. Whether or not the quiz is administered, the chapter or article on which the quiz is based and the particular question to answer typically will be determined by chance (that is, role of the die) and occasionally by decree (my decision). The quiz is not open book. Therefore, you may not refer directly to the assigned readings. However, you may bring notes to class and refer to them while taking the quiz. Limit your answers to one paragraph or no more than eight sentences..

The quiz and/or discussion pertain to the assigned readings for the day. To assist students in their studying and preparatory efforts, standard questions, used throughout the semester, are provided. Over the years I have used a number of questions that address various learning objectives described by the educational psychologist, Benjamin Bloom. Here, for purposes of simplicity, I describe only three questions (knowledge, application, passion) I regularly include

(Include unfolding slide that addresses each question, one at a time?)

Each question has a somewhat different objective, such that together they engage and address students' rational and emotional processing. The knowledge question engages primarily students' rational processes, the passion question their emotional processes, and the application question both rational and emotion processes.

At each class meeting a student volunteer rolls the die. On the first roll, an odd number indicates that a quiz will be administered, an even number that there will be a discussion. The second roll indicates which assigned reading (e.g., chapter or article) will be addressed. The third roll indicates the particular question to be addressed. My research on the MCA suggests that students come to class having completed the assigned readings and that they process the readings at much more than a rote level (Fernald, 2004).

With my continued use of the MCA, I have experienced a gradual and profound evolution in my teaching, from transmitting information to encouraging the processing of information or, stated otherwise, from lecturing to designing and implementing classroom activities that promote reflective thinking and problem-solving. Designing such activities requires teaching ingenuity unlike that required to prepare and deliver a lecture (Giordano and Hammer 1999; Meyers 1997; Zachary 1985).

Compared to a lecture, the MCA requires different activities and skills on the part of students. Students ask more questions, engage in more discussions and reflective thinking, and demonstrate greater willingness to struggle with the complexity of the subject matter. The classroom has an interactive and collegial quality, as students are engaged with both the subject matter and one another. Some students require support and guidance adjusting to a new learning environment (Harton et al. 2002). Providing such support and guidance helps them take full advantage of the various classroom activities that replace the lecture.

#### Application Questions: Structure with Choice

One way, a powerful way, I believe, to bring lived experience and emotion into the classroom is through a self-referencing application question. To illustrate how a student might use this question to bring their lived experience and emotions into the course, let me briefly summarize one student's essay. The student indicated that at age 10 she was abandoned by her mother who suddenly, for no apparent reason, left the family. The student indicated that she hated her mother and had not spoken since to her. One day, in a fit of despair, the student called her mother and asked her to visit her here UNH. The mother refused. After reading about anger and the repression of anger, the student decided that for the first time ever she would express her anger to her mother. When she did so, she broke into tears, as did the mother, and the two expressed what they had been wanting and hoping to say to one another for a very long time. Their relationship now is close and no longer full of rage, resentment and estrangement.

When I first began using such self-referencing application questions, I was somewhat apprehensive. Students who sign up for the Counseling and Internship courses want to learn how to be counselors and to work more effectively with clients at their internship

agencies. They are not requesting personal therapy, and their grade in the course certainly should not depend upon bringing skeletons out of their closets. Use of such questions raises important ethical concerns. What business do I have using such application questions?

My response is this. First, the student may choose from a number of essay questions, the self-referencing application question being only one. A number of students always elect not to answer this, which indicates that they are not for into some sort of personal self-disclosure. Moreover, students choosing the application question probably are more invested in answering the question than they would be if there were no choice, in which case they might exhibit resistance.

Interestingly, about halfway into last fall semester, a student commented, "Oh, I get it, you get more out of the course if you personalize the concepts." The student captures precisely my intent, which is that students will learn and retain more when they apply concepts and principles presented in the course to themselves or, stated otherwise, when their learning is self-referenced. Personalizing or self-referencing one's learning is known to enhance learning (Rogers, Kuiper, & Kirker, 1977).

It is appropriate to note here James Pennebaker's research, which clearly demonstrates that providing college students the opportunity to express emotions through journaling significantly influences their behavior. For half an hour per day on three to five consecutive days one group of students was asked to write about their deepest thoughts and feelings concerning an emotional problem that had affected them. For example some wrote about loss of a loved one, a personal failure, or sexual or physical abuse. The control group spent the same amount of time writing about an unemotional topic such as how they budget their time. The experimental group described the writing experience as extremely valuable even though many of them had become quite sad, even teary-eyed, while they were writing. A follow up assessment revealed that students in the experimental group had better health over the next few months, achieved higher grades, and drank less alcohol (Pennebaker, 1997)

### Making Space for the Elephant in the Classroom

There is, of course, much more to emotion than the excitement of rolling the die and the reliving of emotions that might occur with the answering of the passion and application questions. To address more fully the emotional mind it is important to recognize, I believe, human beings' animal nature. No one has spoken more clearly and accurately than Sigmund Freud, whose writings include many metaphors, chief among them being the horse and rider (Freud, 1962). Jonathan Haidt, in his currently popular book, *The Happiness Hypothesis*, refers frequently to the metaphor of elephant and rider. Both

Freud and Haidt use these metaphors to describe human nature, or more particularly to emphasize the substantial component of animal nature inherent in our human nature. Both horse and elephant are much bigger than any human being. In both metaphors, the rider represents our rational mind, the horse or elephant our emotional/instinctual mind.

Freud distinguished between primary and secondary processes. The primary processes included two sets of motives, eros and thanatos, the instincts of life and death, or sexuality and brutality. The secondary processes referred to rationality, more particularly to the capacity to effectively manage our animal nature. In his book *Civilization and Its Discontents* Freud wondered if humankind could ever successfully manage its animal nature. When I turn on the TV or read the newspaper, which I do as little as possible, because both are so filled with such chaotic sexuality and brutality, I wonder if and fear that Freud's wondering was merited.

Interns typically work two days each week at their internship sites, where they are greatly challenged emotionally --- for example, feeling helpless around psychotic patients, reading case histories of physical and sexual abuse, being the target of group home residents challenging the intern who is not yet learned to set limits and maintain discipline, and so forth. When they come to the internship seminar, they do not leave their emotions at the door. Rather, they often are highly charged emotionally. This being the case, their emotions need to be acknowledged and addressed. Most importantly, the interns need to learn to manage emotions, not to mention long cherished beliefs and values, that have been triggered and/or called into question by emotionally charged experiences at their agencies.

As I enter this portion of my talk, I find myself being apprehensive about finding appropriate and meaningful words. In fact, often I have thought to myself that teaching the emotional mind often goes beyond words. Whatever the case, I am absolutely certain that teaching to the emotional mind requires a particular classroom atmosphere.

What kind of classroom atmosphere am I speaking of here? First, allow me to describe what this classroom atmosphere is not. Most importantly, it is not an atmosphere in which the primary focus is on providing correct answers to questions. The material to be considered, the students' feelings, is located in their bodies, not in a textbook. There is no intention on my part to have students come up with right answers. Rather, the focus is on their thoughts and feelings and, most importantly, on their conjoining their rational and emotional minds. Such learning, I believe, requires a classroom that provides space for the elephant, space for students' animal nature and emotions. What exactly is the shape and form of this space?

Learning that significantly influences behavior, especially when the learning involves intense or even not-so-intense feelings, I believe, typically requires occasional periods of silence -- or, as I sometimes like to say, "a space between the stimulus and response."

Indeed, often the primary task of counselors, and of educators too, is to increase the space between stimulus and response. What exactly do I mean by this statement? The reactive individual is possessed by his or her emotions. Circumstances in the environment trigger emotional reactions that seem almost like reflexes. The responsive individual, on the other hand, possesses his or her emotions. Able to tolerate and possess strong feelings, he or she rationally processes and decides what to do about them. Compared to the reactive individual, this individual is more response-able, and therefore, more response-ible. The space between stimulus and response is larger, as the following diagram illustrates.

(Show slide that diagrams the distinction between reaction [S—R] and response [S---O---R] and indicates how the latter helps the client become more response-able and, therefore, more responsible.)

A statement that my students hear early on in the semester is this: A feeling condemned is a person condemned. I like this statement. It is clear and succinct, and it makes a very important point. After all, we are all human beings, human beings have feelings, and our feelings are important. When making this declaration, I like to distinguish between human beings and human doings. As human doings, we are subject to evaluations, as doings or actions often are evaluated by others. Feelings, on the other hand, are a different matter. Neither good nor bad, feelings are satisfying or dissatisfying, pleasurable or painful. Taking such a stance, that feelings are naturally and inherently human and not to be condemned, clearly take some students by surprise. More importantly, this statement and my conviction behind it establishes, I believe, a classroom atmosphere where interns feel safe enough to discuss their difficulties and struggles as well successes encountered at their internship sites.

As an indication and illustration of the kind of classroom I like to create for my students, I shall read to you an account of an experience that a student reported in class. Following the class, I recalled and recorded as nearly verbatim as I could, the following.

I was feeling a little sad the other day. Instead of trying to will myself out of my sadness or figure out the reasons for it, I decided to go with it. I went to my room and just sat there by myself... my eyes became teary, and I began to softly cry... eventually I broke into deep sobbing that lasted a long time, perhaps an hour or longer. Afterward, I felt better, went out for a short time, returned to my room and went to bed. I awoke the next morning feeling wonderful and realized that I had slept better than I had in quite some time. I still did not know what I cried about, but later in the morning it came to me. It was a problem I had been unwilling to acknowledge for a long time. Having acknowledged it to myself, I later was able to tell a friend about it. I guess my body understood before my mind knew.

The young man distinguishes between knowing and understanding, a distinction that was included in an assigned reading and that had been referred to in a previous class. The distinction is essential, I believe, in teaching about the emotional mind.

The prefix "under" suggests something that "stands under." What is it that stands under the head? It is, of course, the rest of our body, our neck on down, where many of our emotions live --- in our hearts, guts, and genitals. Teaching about the emotional mind, I suggest, necessarily involves body-level learning, just as this young man describes. From the distinction I had made in a previous class, the young man had some small sense of the difference between the two concepts. But knowing, as I have suggested, is not the same as understanding. Upon giving himself time and space alone in the quiet of his room, he was able to experience fully on a body level his sadness. I use the word "fully" because the student's experience of sadness evolved from teary eyes to soft crying to sobbing that lasted for an hour or more. This is just one example, though a clear one, I believe, of what might occur with teaching addresses the emotional mind.

The distinction I make here is evident to me whenever I complete recommendation forms for students applying for counseling or other positions in the field of human services. Almost inevitably, I am asked to rate the student's capacity for analytical thinking. Never have I been asked to rate a student's capacity for understanding, or more importantly, their capacity for empathic understanding of another. Whenever I have asked someone whether they would like to be analyzed or understood, he or she invariably indicates a preference for the latter.

### Empathic Listening: Key to Compassion

Perhaps the most essential condition for students learning about their emotional mind is empathic listening. Empathic listening involves understanding not only what a person says but also the various unspoken feelings attending what the person says. Throughout the semester most of my responses to interns' declarations or questions are met by me with empathic listening. The students both observe a model for an empathic listening and experience firsthand what it feels like to be listened to in an empathic manner.

For the first six seminar meetings, the interns practice empathic listening with one another. Most importantly, as homework assignment, each intern conducts and records a 20-minute to half-hour interview with three individuals outside the course. For the third interview, interns write a seven-page paper which includes transcribed sections from the interview along with an evaluative commentary. Many students enter the internship course believing they are very good listeners, but the experience of listening to and reflecting upon their recorded interviews greatly surprises most of them. Frequently they make comments about how difficult it is to not give advice and not make comments

such as "Oh, I know exactly what you're talking about" Many, actually most of them, indicate that they experience much struggle and difficulty listening empathically for an extended period of time and that they find it difficult to tolerate periods, even very short periods, of silence.

When students have had some experience with empathic listening, often what astounds them is their reactions to empathic listening outside the classroom. Many notice, typically for the first time, how little empathic listening there is in the real world. Often an intern comments on how a staff member at their agency failed to listen empathically to an individual receiving services from the agency. Many interns sadly note that their friendships and relationships with family members include little, if any, empathic listening. Most importantly, students experiment with empathic listening and often discover that such listening facilitates more authenticity and intimacy in their relationships. One example comes to mind. An intern who described herself as having the role of "perfect child" in her family described how she, for the first time, listened empathically to her acting out, drug addicted sister who was thought to be the cause of the family's problems. With the empathic listening, the intern developed profound respect for her sister's struggles, the two connected in a deep and personal manner, and a closer, more intimate relationship was established between them.

Learning to listen empathically is a good illustration, I believe, of learning that significantly influences behavior. To illustrate this point, consider this simple diagram of learning.

(Show slide of the four levels of learning? The levels, from bottom to top, include: unconscious incompetence, conscious incompetence, conscious competence, unconscious competence.)

Most, if not all, students enter the internship course believing they are competent listeners. Early in this semester, however, they discover that such is not the case. The students illustrate the level of unconscious incompetence. One of the first signs that they are progressing in their empathic listening is their comments about how poorly they listen, which is an indication that they have progressed to conscious incompetence. This awareness provides the foundation for accurately noting and attempting to monitor successes and failures as an empathic listener. With more practice and continued monitoring of their successes and failures, students proceed to the level of conscious competence. Here they are successful as empathic listeners, but the task involves substantial concentration and effort. Eventually, after continued practice, some students

each the stage of unconscious competence, as indicated by remarks that they find themselves able to listen empathically in a natural, effortless and spontaneous manner.

To conclude and illustrate my thoughts on empathic listening and, more particularly, on learning that significantly influences behavior, I read an excerpt from an intern's final paper.

The class forced me to question myself, my beliefs, basically every aspect of my life... Many times I would sit in class while an inner war was being fought inside my head. My brain was ingesting all the information provided... but at the same time all this (information) was causing me to question many of my previous values. Sometimes I felt it was easier to disagree than agree, because by agreeing I was forced to change. But change I did. I look at not only the client/therapist relationship differently now, but every relationship in my life. The course has helped me respect and appreciate people more... and given me the understanding necessary so that people I counsel feel truly listened to and helped.

I believe it is no accident that the student uses the word "ingesting," which conveys a distinctly bodily sense for his processing information received in the course. This student took full advantage of the internship experience, especially the experience of listening empathically not only to others but to himself as well. His learning clearly involve both his rational and emotional mind and, I believe, clearly illustrates learning that significantly influences behavior.

Empathic listening is, I believe, essentially a manifestation of compassion. If there were just one emotion I wish to impart to students, it is just this --- compassion. Compassion comes from the heart, an open heart. A brain full of knowledge, in my view, is of very little value, and may even be dangerous, unless it is connected to one's heart, that is, unless it is conjoined with compassion. The Englishman, Lord Kelvin, who gave us the thermometer, once said: "...when you can not express it with numbers, your knowledge is of a very meager and unsatisfactory kind..." Paraphrasing Lord Kelvin, I suggest, "Unless knowledge is connected to the heart, it is at best of very little consequence."

### Epilogue

Lastly, what about my emotion in the classroom, and also here now in this moment? I feel enormously grateful for all the support I have received over the years from my colleagues, from the College, and from the University. No job is ever perfect, but I have had one of the most satisfying and rewarding jobs I can possibly imagine. I may have

helped a few students along the way, but the arrow goes both ways. The students helped me to experience an enormously satisfying professional life. Many of my happiest moments have been working with students both in and outside the classroom. I am a most fortunate man. Thank you all for coming here and there were being with me today.