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Katherine A. Barone

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Holistically informed:

A scientist-practitioner offers the perspective of inclusion over exclusion in two undergraduate psychology courses

Katherine A. Barone

Traditional curriculum and the undergraduate applied programs at Lesley University

In 2010 Lesley College developed its first traditional psychology major, paralleling models at other universities while embedding it within Lesley's own field based learning perspective. As a leader in applied psychology for over 25 years, Lesley's Bachelor of Science programs have included Human Services, Counseling, Art Therapy, Expressive Arts Therapy, along with a specialization in Social Work. In 2006, we added a Holistic Psychology major on the undergraduate level, an innovation across programs in the United States. The Psychology and Applied Therapies Division and Lesley College are committed to a more holistic learning pedagogy for all undergraduates, thus, all majors must have field experiential learning as well as classroom study. Coursework in all of these applied psychology majors includes traditionally research-based curriculum, such as Abnormal or Developmental Psychology and also applied 'Principles and Practices' type classes that introduce students to theories and some beginning level concepts in fieldwork. Students then are guided to find internships in which they first observe, and then begin to practice some undergraduate entry-level skills they are learning under supervision

Debates about whether we should be teaching undergraduates entry level skills and techniques are fairly moot at this point but can still be had. For example, Vespia, (2006) notes in the context of a course developed around multicultural competencies that "undergraduates could not be taught intervention skills"....[but could] "...address their knowledge and beliefs." (273). I think most applied psychology classes I'm familiar with on the undergraduate level reach for understanding of principles and sprinkle in some demonstrations of practice techniques as experiential exercises for the concrete learner. However, as ethical educators we also need to consider carefully the level of understanding of the field that students might need to have when leaving the undergraduate institution and also assess whether they have a concern for their own continuing education. Indeed, under managed care systems some graduates of applied psychology programs may have to make service utilization determinations or others might lead social service programs at the bachelor's level. Reports from our alumna show that more than a few were functioning independently as case managers, within one year of graduation, in clinical roles such as mentor, tracker or family worker, including writing assessments. Others were running organization or programs within several years of graduation, such an alumna writing that she was running a Family Services organization in Texas about three years after she graduated.

Here I will consider some of the dilemmas of applied undergraduate curriculum, which teaches an equal appreciation for research based science and for practitioner based knowledge. I'll address this within the context of the inclusion of holistic psychology practice ideas and perspectives in two standard undergraduate psychology classes: Theories of Personality and Cognitive Psychology. The methodology here includes the examination of cases, in this example, courses, both lending to the analysis and further development of teaching within these areas. I hope to both caution and encourage undergraduate psychology faculty who are venturing into these areas of applied psychology with some practical advice on adjunctive curriculum.

Scientist-Practitioner Models: Looking at both sides

The waters of the debate about whether applied psychology should be equally or primarily based in either a scientific model or a practitioner model are surprisingly still quite treacherous. Meichenbaum (2005) and others (see e.g. Vespia, 2006; Leong, Zachar, Conant, & Tolliver, 2007) have recently held that the scientist-practitioner model, referred to as 'The Boulder Model' (APA, 1949), still has persuasive power for the clinical and counseling psychology fields as compared to alternative 'clinical scholar' (primarily practitioner) models. Meichenbaum (2005) worries, that a real problem in psychology is whether graduate students have sufficient critical thinking skills to allow them both to challenge questionable claims and to problem solve empirically. Similarly, others have worried about whether undergraduate psychology students are learning an appreciation for science-based inquiry (Lilienfeld, Lohr, & Morier, 2001; Vespia, 2006). Lilienfeld and his colleagues present resources for an undergraduate course challenging students to think critically and analytically to develop understanding of how social psychological variables may change perception or elicit cognitive phenomena such as selective attention to foster several pseudoscientific belief patterns.

Certainly doctoral level clinical practitioners have been cautioned since Meehl's seminal work in the 1950s and 1960s about illusory correlations and anecdotal claims from biased samples as well as many other non-scientific forms of 'evidence' used to bolster practice belief systems (Meehl, 1954, 1965). This has been more recently seen in research on critical thinking as an outcome for undergraduate psychology majors (e.g. Lawson, 1999, cited in Lilienfeld, Lohr, & Morier, 2001). Cognitive research supports these ideas that "everyday" cognition is replete with decisions made on the basis of experience and clinical judgment and not based on empirical observation (e.g. Lipshitz, Kelin, Orasuna & Salsas, 2001). In the face of evidence by research by Dawes (Dawes, 1982; Dawes & Corrigan, 1974) and others (e.g. Kleinmutz, 1990) that it is often more accurate to use statistical prediction models due to failure to integrate identified important variables, we worry that our applied undergraduate students will feel falsely assured that their gut level instincts are all they need for practice. This is especially important since some may be in significant decision-making roles without further

training or substantive supervision in the new mental health and social service delivery models. In our programs we point to the need for on-going supervision and continued education, but students seem to differ in their dispositions about seeking critical feedback (e.g. Leong, Zachar, Conant & Tolliver, 2007). As Leong and his colleagues (2007) point out, it may be that undergraduates differ in their 'need for cognition'; their research found that those leaning more toward scientific interests had a higher need to engage in complex cognitive problem solving than those interested primarily in practice in psychology.

I enter into this discussion having been trained during the 1980's in the Boulder scientist-practitioner model (APA, 1949). We're still debating those Boulder concepts at the graduate level (e.g. Peterson & Park, 2005). Is therapy, as practiced, an art or a science? Now we discuss with new terminology: Should practitioners be restricted by diagnostically related groupings (DRG's) and manualized treatment protocols built on reductionistic empirical research when clients are as individual as snowflakes, a symbol focusing on the uniqueness of the individual (e.g. Bernal, Jenkins, & Mahalik, 2007). Which way do I lean as a practitioner and as an undergraduate faculty member? Well, I present myself as quantitatively and empirically oriented – a "digit-head" – to a point; I often tell my Research Methods students that while I am a big fan of large, quantitatively oriented research designs, I also realize that aggregate data have limits in describing individual variability. I use both inductive and deductive methods and studies in teaching and demonstrating why we practitioners should focus on both science and practitioner knowledge. This is in keeping with the way the helping professions has moved to employ undergraduates in ever more responsible roles over time.

My background for applying the model: humanistic multi-cultural settings

My own entry into the world of the practitioner was based in multi-cultural settings. The theory base for my practice is broadly humanistic in terms of beginning with the client's experience and feminist in that it considers socio-cultural impacts to be very important but I have a strong tendency to use what works, starting with cognitive behavioral techniques¹; that's the applied scientist in me – cognitive models have been shown to be a starting place for short-term clinical work (e.g. DeRubeis, Tang & Beck, 2001; Levant, 2005) providing a more replicable way to conduct in-depth work (see, for example, Stein and Young's (1992) work on schema oriented therapy for personality disorders). My very humanistic, multi-cultural pre-doctoral internship² also taught me to listen especially to the experiences and worldviews of my clients for clues as to how to best offer treatment. I was imbued with the need to be informed about the client's socio-cultural experiences in every clinical situation whether it was in therapy with children (see, for example Vargas & Koss-Chioino, 1992), individual adults (e.g. Brown and Ballou, 1992) or families (e.g. McGoldrick, Pearce & Garcia-Preto, 2005). It taught me to pay attention to mind, body and spirit issues in clients of every background; thus, it was broadly holistic in its approach to treatment. The supervisors at my training program noted, as have others (e.g. Gambrill, 2007), that recommended research-based treatment protocols might be a terrible mismatch for some clients. This seems so

obvious as to not be worth saying, yet these issues in the era of refashioning our health care system raise real dilemmas for practitioners. Whether an insurance provider will pay for non-empirically based treatment is a real question now, even as practitioners attempt to subject their innovative techniques to standardization and testing.

I often engage this dialectic in discussions with my undergraduate students interested in clinical work immediately post graduation. They ask why they have to take Research Methods, as well classes on the current principles and practices of their applied fields; I say that helping professionals are involved in fields that value both science and practice. Both perspectives inform one another and neither has all the answers. It would be nice if these more practice oriented students just believed me on this point, but this is usually the beginning of a discussion that starts to sound as though students believe that science and practice are in essence, diametrically opposed. A recent class observation I conducted found a colleague addressing this same issue with his internship seminar class. It's as if Leong and his colleagues' research proposal has come to life in our classrooms and the 'true scientists' and the 'true practitioners' think they have nothing in common. The debates continue.

To demonstrate that I support developing knowledge on both sides of this divide, I discuss work I completed over several years in the science and practice of trauma researchers engage with diverse populations in community mental health (see, for example, Marsella, Friedman, Gerrity & Scurfield (1996). I point out to my students that that's how this model works – both practice and science inform each other, although at any particular point in time, one might seem “ahead” of the other. therapy (see Barone, 1997; 1998). In two papers, I addressed the problems of applying the standard research based treatment models, developed primarily with middle class white female trauma survivors and hospitalized veterans (see, for example, Herman, 1992), to community mental health populations, especially those in poverty. My clinical experience with many impoverished and/or multi-cultural clients was that they didn't want or couldn't afford long-term treatment. In 1997, at the International Society of Traumatic Stress Studies (ISTSS) conference, I presented a case study, cautioning that the treatment commonly offered to many clients diagnosed as having dissociative identity disorder needed to be adapted for diversity (Barone, 1997). The standard treatment - long term, continuous, exposure-based work - could be modified to be phasic and strength oriented when confronted with multi-cultural or poor clients with many life stressors. Otherwise, as I was seeing in my practice, many of these clients might fold in the face of the increased stress of treatment exposure and re-working of their own trauma histories – an iatrogenic disaster in the making. I returned to the ISTSS conference in 1998 to present my own research on textual analysis of gospel music, addressing how ethnic-racial communities may use a strengths-based way to assuage trauma's wounds without opening up “the can of worms” of exposure treatment (Barone, 1998). I am pleased to note that the trauma field has moved towards these strength-based and phasic treatment recommendations as more practitioners and

Further afield – holistically informed scientist-practitioner case analyses

The shortcomings of a rigidly and solely science-based model for clinical practice should be readily apparent to graduate level practitioners. It is not so clear to the confirmed undergraduate science-leaning psychology student, although admittedly to me there seems to be fewer of these undergraduate students these days. Concrete case material helps these students learn that we don't 'know' everything via the rigid use of science, and sometimes we may 'know' only a small piece of the picture of an entire situation. A good example comes from clinical assessment work with a recent Haitian immigrant with a domestic violence history. A rigidly science based therapist might have some trouble accounting for why a pregnant woman would miscarry if she believes she was cursed by her violent partner's family. This clinician might speak of delusions and problems with the pregnancy, when even a somewhat limited holistic model would reference several factors: the physiological responses to acute and ongoing stress; the family and cultural systems of meaning making; the issues about women's power; and especially, the context of immigration. All of these intertwine with one another. In a referral of this client to a local Haitian mental health program, one might want to assure that the clinic staff were familiar with work on curses and also that they were unlikely to prescribe anti-psychotic medications long term, if the 'delusions' resolved with careful and culturally appropriate therapeutic attention and social services intervention. Much work on cultural misconstruction of illness and misdiagnosis (e.g. Kleinman, 1988; Fadiman, 1997) contribute to this intersection for work with diverse client populations, adding to the discourse on knowledge, power and illness in the fields of anthropology, sociology and women's studies.

Cases like these expand students' knowledge in terms of good culturally informed practice, to which an ethical psychology aspires (APA, 2002a). The cases also stretch students' mindsets about the limits of science. I teach my students to respect science, learn to utilize it, and also that the scientific classification of some phenomena could actually stigmatize clients and make a situation worse, as might have been true in the case above if this client were to have made her way to a standard psychiatric clinic. She might have been labeled 'psychotic' and not 'domestic violence victim, subjected to curse by ex-partner's family'. Some of my students are fascinated by the voodoo curse and wonder how clinicians who are more open to the idea of "magic" might view it. I share some my perspective on the 'edginess' of such discussions in western oriented clinical teams. I disclose to students my clinical team's lively discussions about whether the client could purchase a more powerful 'antidote' or protection spell. I engage them with a framework that brings scientific questions to the process, such as: What might a scientist say if that did work? In addition together we contemplate the social dynamics of procuring such 'protection'. What I stop short of is pondering if the magic is real and will work. I point out that one needs to honor this client's traditions and find her culturally sensitive intervention. Similar to trying to understand the placebo effect, this exercise allows us to deconstruct the intersections of science and applied practice.

Developmentally this is appropriate but challenging stretching as students tackle more abstract concepts outside the realm of their own personal experience. In my Personality class, I teach about labeling, stigmatization and the limits of science-based inquiry. I use the case of a mother bereaved by the sudden death of her young daughter; she was diagnosed with depression with psychotic features because she heard her deceased daughter calling her. In this particular case, a lack of resolution of this and many other issues, including a childhood history of abuse and past domestic violence, led to this woman having been assigned multiple diagnoses of schizophrenia or schizo-affective disorder; she currently labeled herself as being 'mentally ill' although she'd had long periods with no apparent residual symptoms.

Here's the case:

African-American woman, 57, struggling with depression since age 30, has recently returned to psychotherapy, following her most recent round of chemotherapy and radiation, post-mastectomy. She has three grown children, only one of whom she has active contact with, her eldest daughter, in recovery from substance abuse. Her son, is living in a halfway house and is considered, "mentally ill" and is an "active" heroin user. Her other daughter is doing well, but harbors resentment against her mother for her treatment of her because she is gay. Client reports being raised by a white woman who returned her to live with her biological mother when she was 7 yr., due to the caregiver's illness. The bio mother, who was an alcoholic, was also a "prostitute" and the client was exposed to sexual and physical abuse by her mother's clients/drug using friends. Later when the client ran away as a preteen, she was placed in a group home and sexually abused by the girls there. She later married an abusive man and her first child died at age 9 on the operating table. Shortly thereafter, client had her first hospitalization –hearing her dead daughter call to her; client lost her second husband (to asthma) and bio mother (to breast cancer). After this hospitalization she was in day treatment and worked as a clerk for the state; she also became a lay minister at her church. She now defines herself as "mentally ill", but states that she may also have a drinking problem.

In discussing this case, I point to a more complex assessment that does not start and end with past labels and which would include this woman's current cancer treatment, social isolation, and alcohol use as self-medication. I point out that the increased stress of cancer treatment may have caused a regression in functional status and that it is hard to tell what personality or clinical variables we see that might owe to current cancer treatment. Then I note that unlike previous decades there is now research on bereavement phenomena that shows alterations in perception are very common (e.g. Kaplan & Sadock, 1998). I do point out, that even if we didn't have the scientific research to 'prove' the perceptual alterations, asking our practitioner colleagues would probably lead us to find the kinder and more appropriate diagnosis of a 'rule out' for psychotic disorders. I also caution that many people's belief systems would include a spiritual connection with deceased loved ones and we need to

honor these beliefs. If this sounds like a high level discussion for an undergraduate psychology class, these cases are what students tell me they remember to explain the concepts from their undergraduate career. Both my course evaluations and students' direct reports to me say that they appreciated the case material and learned so much more having to understand the limits of assessment and diagnosis in this way. They remember the cases too – visiting alums in my classes five years earlier have told me the stories verbatim. The use of cases in this particular example helps students understand of how a previous lack of normative research or an unwillingness to tolerate what we cannot explain by science may result in misunderstandings of the human experience at best and in prejudice and oppression at worst.

But what about the rest of human phenomenological experience not yet researched thoroughly? In my Research Methods class, required for all applied psychology majors, including Holistic Psychology, part of our exploration of the limits of research is to point to the researcher, in that one can only get the answers to the questions one asks. So how do we explain clients' beliefs in curses that could cross an ocean, in voodoo, in haunted ouija boards, in Santeria, in herbal cures or even a client who thought she could make it rain, if no one asks about these experiences? And do we need an explanation – or do we simply engage in parallel interventions? I have thought a lot about this problem, often in team meetings, in my supervising and teaching of graduate students, or even writing file notes on my own cases in community practice. The combined treatment I was involved in did not always make it into my clients' case records. Over the 15 years of my clinical practice work among those marginalized in immigrant and ethnic communities, some of the more unusual adjuncts to standard therapy I recommended included contact with priests for exorcism (of the ouija board), an animal sacrifice by extended family in Africa, a 'curandero' for traditional herbal remedies, and Native American consultation to explore a shamanistic legacy. This was alongside some less grand holistic interventions, for example, aromatherapy for a client with nightmares by use of her protective grandmother's perfume, or a yoga class for a cancer survivor.

Bringing a combined perspective into two courses

Students in my courses appreciate the multi-faceted approach I bring I utilize in challenging research and practice. Students find it difficult because as noted above, most undergraduate students I teach want to be practitioners – they are eager to know “the way” so they can apply it immediately. It often takes persistence to have them absorb that these are theories that we test with research to see if and how they apply to real people in diverse setting, circumstances and ethnic backgrounds – again the snowflake image is useful here. Also I challenge students to understand that many theory bases have a bit of the “truth” when applied, so that no one ‘answer’ will apply in all situations.

As a part of this general introduction to the scientist practitioner concept we also discuss the limits of knowledge gained through individual experiences, the 'N of 1 problem'. As you can imagine this kind of cognitive juggling is very rigorous for students who want to walk out of undergraduate study and engage in the case planning as a part of a treatment team. Furthermore, the field may require them to do so, even in entry-level jobs. Ethically then, I can do no less because I truly believe that it is both the individual phenomenological world and the large N group research that develops the fullest perspective in our field. When undergraduate students might be front line workers in residential, hospital or rehabilitation settings, they must be open and willing to be life-long learners, to keep reading and transforming. To facilitate the absorption of the complexities of real people who don't fit neatly into theory (or research), I also include case studies in almost all my upper level psychology courses. Students discuss cases and human experiential phenomenon in groups, helping each other to stretch what theory and research teach us. In class discussion and especially in small group work I interject frequently to make sure we don't lose either the practitioner's or the scientist's perspective while we consider the strengths and the limits of both models.

Inclusion, not exclusion

The inclusion of holistic practice concepts, within a science based curriculum, is a delicate and at times a difficult balance. The inclusion of even a westernized, holistically informed approach in Personality and Cognitive psychology courses is a challenge for traditional age undergraduate students because of the above-mentioned idealistic search for a singular 'truth'. I welcome this dilemma because I can usually move students along on a continuum toward more complex thinking. Students also sometimes struggle with what I mean by 'inclusion, but not exclusion'. I explain that I work toward an understanding that considers aspects of human experience of the intertwining of mind, body and spirit, including that which is, as of yet, unexplained by science. I note that what I do is different from teaching eastern psychological models to the exclusion of western science. This is the view that a few students have erroneously deduced as one of the goals of the Holistic Psychology program; this is similar to the scientist practitioner split mentioned above. There is a great deal of western science that explores human experience. One simply has to look for it, and that exploration does not invalidate experience not yet explored by science. Having taught from research based psychology texts for many years, I do know that even this small shift in perspective significantly changes the emphases in these two courses. I am public about the fact that, in my courses, the balancing point is usually on the side of learning western science concepts and applications due to my training and epistemological theoretical leanings.

On the other hand, traditional psychology is lacking when evaluated from a holistic perspective. For example, personality theory and research are great on biology especially with new advances in brain imaging, behavioral genetics and genomic work. But even within this expanded research and the current emphasis on biological models, it is hard to find

anything in a personality text that directly addresses even the most westernized and limited holistic views and research on the biological contributions to personality. I find that students need this explicitly taught because they tend to “believe” the reductionistic models in a socio-cultural-historical-political time period that emphasizes biological causality and “fixes” to the problems in living. So in class discussion, readings and group work, I ask students to discuss the following types of questions: how do nutrition and supplementation effect our traits, or their manifestation in behavior, cognition and affective states; how do disease states or drug or medication use possibly alter personality; what interventions can be understood as biological even when they are based in simple exercise biology and/or physiology; and even, how do spiritual practices and belief systems effect traits, behavior or even biology? I find this way to expand the understanding of what is “biological” is one that students eagerly grasp, since often they have personal experience with trying to affect their own biological systems.

Is there anything else missing in personality texts which would facilitate teaching a more holistic model? Yes. One of the largest deficits is a lack of any information on cultural contributions to personality. I am highly sensitized to the issue by my multi-cultural training and my nearly twenty years of teaching in Lesley’s applied programs; the relevance of cultural influence permeates our curriculum. As a remedy, in even the most traditional of personality perspectives, for example, in ego analytic or in behavior reinforcement models, I ask students to apply a cultural model of understanding. This is important to a holistic perspective because how the mind works and even how the body responds to different stimuli may be partly due to cultural training and not just genetics. Emphases on spirituality and religious involvement also differ from culture to culture and from individual to individual and therefore should be a part of a holistic assessment of personality.

So while I want to teach the definitions, concepts and research of how and why personality is proposed to develop or change or contribute to problems in living, I also want to teach that these are theories that vary in their applications to real people’s lives and that they exist within a socio-cultural context. Theories of Personality, however, is a required course for some applied majors and popular elective for general social sciences.

With all the above items added to a content heavy course, what do I take out? I’ll admit that I do skim or even skip over discussion of some models within the larger perspectives in personality psychology. For example, while I may cover the neo-Freudian perspectives, I pick and choose among the eight-plus individual theorists to present some common threads via several theorists’ models. Similarly, I skip some research and theory in biological models, behaviorism, humanism and cognitive theory. My text is set up this way – to present five meta-theoretical perspectives; this facilitates discussion at a supra-ordinate level. So my use of a mind-body-spirit perspective here is a bit limited by the volume of material but I do find that the course is a success in that students are able to utilize traditional personality theory emphases with the inclusion of holistic ideas to describe cases by semester’s end. My proof

that this works is a collection of writing samples from students' exams which show the complexity of thinking and writing from students who may have started the semester saying "but which model is right?" See appendix for examples of student work on the midterm for the case cited above; both students have managed to incorporate a multi-faceted view of what a holistic "treatment" could include.

In comparison to Personality theory, standard undergraduate Cognitive psychology has in the past suffered from a real lack of imagination! This course, required for Holistic majors and an elective choice for other applied psychology majors and for social science, has traditionally had some of the driest textbooks around. Perhaps it's the fact that the research can be devoid of human experience; for example, classic studies on rats, cats, chimps and computer chess players abound here. It is not that animal studies or artificial intelligence studies aren't helpful or interesting, it's just that the experience of cognition perhaps can't be elucidated in the same way as it can when humans are the main focus of research. I haven't reviewed all the undergraduate texts available but for the same reasons I discussed above, I keep returning to one which covers at least a little on the contributions of development, gender, environs and culture to cognition and discusses neuropsychological research with these emphases.

Traditional topics in cognition cover areas such as perception, attention, memory and learning. All of these can contribute to an understanding of how the mind works and how it can contribute to the development of human phenomenological experience, thus its inclusion in the Holistic major. I've been teaching this course over the past fifteen years and I noticed that much of that lack of vibrancy even in my preferred text started to change with the explosion of new cognitive research in neuroscience. Students grab onto the recent growth in this research, especially that using functional brain imaging, at a pretty high level once they understand that this is where the 'coolest stuff' is. Topics not covered in our textbooks, for example, include differences in brain functioning/cognition in autism, in spiritual practice, deliberate alterations in perception (aka altered states), etc.

Here are some other topics in cognition or its applications that I expand on both in lectures and in assigned readings given their emphasis on the world of human experience and also for solid work done in the scientific laboratory: How what we believe changes what we perceive; similarly how perspective allows us to see what is "not" there, especially in the context of ubiquitous selective attention, schema activation, and work on cognitive overload; how variation in cognitive functioning might develop across gender, culture, and diagnoses and how this variation may be shaped by biological and environment differences; in brain research, how biological epiphenomenon may account for some religious and spiritual experiences, as well as addictive and/or artistic processes (see for example Cozolino, 2004; Young & Klosko, 1996).

One example of a class discussion about application of this combination of cognitive processes and cognitive neuroscience involves research into the ability of the brain to perceive the memory of something as a current, real experience in terms of brain activation. We apply these concepts to an exploration of a practice idea, 'bus ticket therapy' (a change of scene by leaving town) for people who are addicted; why might this 'therapy' be what works for treatment resistant addiction? Students learn that the brain might be constantly high-jacked by chemical changes in response to triggers for substance use in the familiar environment (e.g. "context priming"). These then, in turn, signal a memory of certain cognitive/affective states, actually producing a re-experiencing of the altered state involved in drug use. Obviously flashbacks in PTSD can be understood this way as well. It is only one small step further to explore the cognitive neuroscience underlying deliberate alterations of consciousness and perception – for example, in shamanistic practice. Although this risks supporting the above-mentioned reductionistic biology-as-causality paradigm, at the very least the topics are being explored and not avoided. I also use visual literacy (for example a Discovery Channel series, 1997; "Secrets of the Mind", [Nova series] 2001) to assist with the discussion of this level of brain science as these experiences are less common in the college student population and are not covered in undergraduate texts. In addition to using visual case studies, I also elicit a discussion around the limits of the science-based view of these types of phenomena.

So apart from the text's most 'racy' discussions of false memory syndrome and the flashbulb memory problem in eyewitness testimony, we have some very fun and far reaching discussions of the implications and applications of concepts in the class. Videos on cognitive functioning and cognitive rehabilitation and cases from clinical work about belief systems built on experience, selective attention processes, and self-fulfilling prophecy type behavior, provoke many student insights about how it could really be 'mind over matter'. There's much discussion about whether one can make happen what one believes to be true and what processes are involved in things like using affirmations (positive self statements) to alter one's problematic behaviors or cognitions. Invariably, someone usually mentions the field of psychoneuroimmunology in some context as to how thoughts and their related affects might even change biology on the molecular level. When I then return to cases and explain how depressed individuals with activated maladaptive schemas literally don't see successes in their own lives and have to learn, in some ways, to distrust their perceptions of their experiences, in order to start to feel less depressed, the students really 'get it'.

Another example in this class of favorite topics is an ongoing enthusiasm for the ideas surrounding autism and artistic savants. What is holistic about this? What I hope students learn is to consider experiences that are 'non-normative'; if studied in a non-pathologizing way, these experiences may help us to examine how, within different contexts, human cognition can vary. We discuss Temple Grandin's (2009) insights and other studies about autism, especially musical and artistic savants in terms of cognitive acuity and differences in processing. One class exercise is to stretch our developing understanding to try to see

through the eyes of one who believes they can “read” animal behavior for its meaning. I ask students to tackle this experiential phenomenon utilizing selective attention, more acute perceptual processes and expert-like behavioral observation. How might one ‘read’ animals? This is quite popular topic for the animal companion people in the class. I call this acute observation skill ‘graduate level intuition’, that is, how picking up on subliminal cues might involve retraining one’s own perception, to look in a certain way at a perceptual stimulus. Here’s the difference between my cognitive course and other practice courses: I’m not teaching these techniques but merely using cognitive concepts to analyze how the techniques could work from the view of western scientific principles. As one might be able imagine, even with these limitations, by the time we get to this view, some 50,000 miles away from the average cognitive course, we are breathless; so much for a boring subject with dry textual materials!

A final example of my in vivo demonstrations about the power of the mind has been a small demonstration on positive thinking or reframing: students reflect on what it would be like to practice a different perspective on a troublesome behavior/experience. Its always informative for the students, as they brainstorm changed perspectives, how a negative experience could, in fact, be a gift. They are impressed by the body and affect changes offered by a more positive thought process engendered even in a brief classroom exercise. When we extrapolate to someone who involves themselves in a ritual or other transformation experience, they start to see how one’s whole brain, body and spirit could end up at a very different place, especially if one kept that ritual learning front and center in one’s life.

The fact that Cognitive Psychology is a required course in the major often surprises many holistic psychology students. It seems too bone dry when they look at the textbook. As we now offer a more traditional psychology major, this course does in fact include lab work. The fact that we are fairly successful having the above discussions and concept application in the undergraduate curriculum is what has been surprising to me. Students for the most part love these “departures” from the standard text. They are thrilled to talk about what they may call the “weird” experiences they’ve had in terms of perception, memory and perspective. They understand that essentially I am stretching the western texts to be more inclusive, that there is science to support the topics we discuss, and yet there is a limit to what the western perspective can do.

Conclusions: So both are right!

Science fascinates me; my teaching load includes a section of Research Methods many semesters and our emphasis in this course, required for all applied majors, is quantitative. Thus my credentials as a distinctly western empirically oriented scientist are pretty solid. When I tell my applied psychology students that, even if they like the distinctively western empirical viewpoint, it is essential for helping professionals to understand and be able to utilize both the scientist and the practitioner viewpoints to honor what is the client’s

experience, even if it is beyond what is currently understood in western science. That doesn't relieve them of the need in a curriculum that values both scientific and practitioner perspectives to try to apply both conceptualizations when and where they can. In the end, we stretch toward a middle ground of experience and data and have some fun along the way, learning from each other.

Notes

¹ My leanings in therapy are influenced by humanists such as Rogers (1980) & Yalom (1980), as well as critiques by feminists such as Brown & Ballou, (1992), and work in cognitive schemas by Young and others (see for example, Stein & Young, 1992, Young & Klosko, 1994).

² I interned at the Center for Multi-Cultural Training in Psychology, at what was then called Boston City Hospital, now Boston Medical Center, in 1988-89.

Appendix – Student Holistic Treatment Exam Responses to Case Study

Student A :

A holistic approach to healing can be one of the most effective methods of healing. It is a method that is commonly used with cancer patients, and could be a great technique for Shirley.

Shirley recently went through chemotherapy, and is currently attending psychotherapy, which she has tried before. She has also suffered traumatic losses and has difficulty coping with those memories, and current life situations. In addition to therapy she has chosen the path of self medication, which she uses alcohol for. It appears that current methods of self help are not working for her, and that she needs alternate methods of treatment.

One of the first methods Shirley could try would be acupuncture. Acupuncture can help with many areas in a person's life, one that could really help her is how it can alleviate pain, which can occur from chemotherapy and radiation. It can also help with addictions, which she believes she is suffering from relating to alcohol. Acupuncture can also help with mood, which would also help her. Another uncommon practice that I believe could really help her is hypnotherapy. Hypnotherapists tap into the unconscious and work on "reprogramming" their way of perceiving certain things. She may be able to work on some trust issues by attending hypnotherapy.

Another method she could try could be tapping therapy. It is a very simple method that could help her deal with stress and anxiety in the moment. There are many stressors in her life, and this may be a helpful tool to get her through each day.

Overall I believe Holistic Healing could be an excellent way for Shirley to deal with her physical discomfort, her PTSD and her many issues of abuse and neglect, and her day to day living.

Student B:

In Shirley's case, her vulnerability would be her depression and substance abuse. I would not personally provide medication for Shirley unless absolutely necessary because of her alcohol abuse and depressive tendencies and cancer treatments. Too much medication and risk for self harm on the other hand, many other holistic approaches could be used to help raise her self esteem and improve her substance abuse. One example would be AA counseling to help her with her alcohol problem. This would give her a chance to interact with others who have similar issues and

provide guidance and support around addiction. Her cancer has probably a huge impact on her low self-esteem to treatments which could result in significant weight loss. Seeing a nutritionist to help gain insight on healthy eating for weight gain as well as personal training to build strength back could be extremely beneficial in physical confidence. Also martial arts methods like Ti chi [sic] could be extremely helpful because it can help provide exercise for strength. Not only that, but it provides control of oneself and their body. This could be very helpful for Shirley because of her abuse history, so having and learning the control of her body could help raise her self-esteem regarding those issues.

(Signed releases were obtained from these students to use their work)

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