Educational Applications of Personal Construct Theory: Part Two

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This essay, part two of a series that began in the last issue of The Researcher, examines the educational applications of the Personal Construct Theory (PCT) of the American psychologist George Kelly (1955). Although PCT is highly respected and used by British social scientists, it is largely unknown in the United States. This essay begins by briefly reviewing what Kelly called the Fundamental Postulate of PCT and its eleven corollaries, which were examined in depth in part one. It also further analyzes Kelly's notion of the "construct," which is PCT's basic element of phenomenological analysis. A construct is much more than a merely cognitive or propositional unit (as is so often the case in many brands of constructivism), but is rather a melding of somatic, cognitive, emotional, interpersonal, cultural, and political factors. Part two concludes by suggesting how PCT theory can enrich various aspects of educational research and practice.

INTRODUCTION

In part one of this essay, which appeared in the last issue of The Researcher, I presented some of the fundamental aspects of George Kelly's Personal Construct Theory. As I noted in that essay, PCT began with Kelly's work The Psychology of Personal Constructs (1955) and has had an important effect on academic and clinical psychology although the impact has been much greater in the United Kingdom than in the United States (Neimeyer, 1985). Many scholars and clinicians, mostly British, have carried on and extended PCT, broadening its horizons to fields ranging from linguistics and anthropology to economics and management. However, although PCT has begun to make a few inroads into educational theory, the profound potential of PCT for education has only begun to be treated in a systematic way. Part one of this essay examined the basic characteristics of PCT and a few of its rudimentary educational applications. In part two, I will elaborate upon these ideas. First, however, it is necessary to present a brief summary of part one for those readers who have not read it.

PCT rests upon what Kelly called the Fundamental Postulate and its Eleven Corollaries. According to the Fundamental Postulate, "a person's processes are psychologically channelised by the ways in which they anticipate events" (Kelly, 1955, p. 46). This deceptively simple sentence is actually quite rich. It speaks of an orientation toward the future that invests the present with an anticipatory sense of meaning. Furthermore, past experiences in a certain context literally provide the terms by which one uniquely interprets (or constructs) present experience in a similar context; and, ideally, these present constructs will orient the person toward the future in a way that she finds meaningful and exciting. When present constructs do not orient the person toward the future in a fruitful way, a blockage has occurred which can range from merely irritating to disastrous.

From the Fundamental Postulate, the Eleven Corollaries follow. The first corollary, called the Construction Corollary, is that "a person anticipates events by construing their replications" (Kelly, 1955, p. 50). A person creates (and in the creating affirms) continuity in his existence by construing generic similarities between objects, people, or events. The play that one saw tonight may have been bad while the one last week was excellent, but one is able to connect the two phenomena and anticipate future plays because of the construct play. The second corollary, the Individuality Corollary, is that "persons differ from each other in their construction of events" (Kelly, 1955, p. 55). How a person sees the world through her construct system defines her existentially. It determines how "persons differ from each other" in the psychic textures of their experiences even though the objective circumstances of those experiences may appear the same.

The third corollary, the Organization Corollary, is that "a person characteristically evolves, for their convenience in anticipating events, a construction system embracing ordinal relationships between constructs" (Kelly, 1955, p. 56). For example:

for some people the construct traditional jazz versus modern jazz may be subsumed as a subordinate implication of the Fall 1999 25
construct good jazz versus bad jazz and both poles of the construct [for constructs are always bipolar] might be subsumed under the music end of the construct music versus noise. This hierarchical quality of construct systems is what makes our world a manageable place for us (Bannister & Fransella, 1986, p. 11).

We arrange our constructs into systems with the higher-order constructs (or superordinate constructs) subsuming lower-order constructs (or subordinate constructs). Constructs being scalar, a superordinate construct from one perspective may be a subordinate construct from another perspective.

The fourth corollary, the Dichotomy Corollary, is that "a person's construction system is composed of a finite number of dichotomous constructs" (Kelly, 1955, p. 59). This carries several implications: 1) A construct does not exist in isolation but can only be understood in terms of an opposite. The construct high would make no sense without the construct low. Yet, individuals construct dichotomies in idiosyncratic ways, and we can begin to understand a person's construal of something only when we look at what that person construes the opposite to be. The dialectical tension between those opposites can be either constructive or destructive (Riegel, 1979). 2) Dichotomies are idiosyncratic. To one person, the opposite of ambitious may be dull whereas for another person it might be fun-loving or wise. 3) A person may position herself at any given time at a different spot on the continuum between the two construct poles. This allows much more emotional and situational flexibility than do models of decontextualized cognitive absolutes. 4) The formation of a construct dichotomy is at least a triadic phenomenon. As Kelly observed, "In its minimum context a construct is a way in which at least two elements are similar and contrast with a third. There must therefore be at least three elements in the context. There may of course be many more" (Kelly, 1955, p. 61). Later we shall see this triadic method in use in the construction of PCT's most popular and useful clinical tool, the repertory grid.

The fifth corollary, the Choice Corollary, is that "a person chooses for himself that alternative in a dichotomized construct through which he anticipates the greater possibility for extension and definition of his system" (Kelly, 1955, p. 64). The most significant point to note here is simply that people can choose. Despite the absolutism of socio-economic determinism in educational theory (Bowles & Gintis, 1976) or the reductionism of behaviorism (Skinner, 1968), PCT agrees with Giroux (1983) that we are precisely the creatures who do choose and who, through choosing, can affirm or resist a political or existential situation.

The sixth corollary, the Range Corollary, is that "a construct is convenient for the anticipation of a finite range of events only" (Kelly, 1955, p. 68). This finite range of events is what Kelly calls that construct's range of convenience. The seventh corollary, The Experience Corollary, is that "a person's construction system varies as he successively construes the replications of events" (Kelly, 1955, p. 72). This is simply another way of saying that we experience, and that with experience we reconstrue. Indeed, experience is reconstrual and not merely a succession of events that happen to us. A person is experienced not merely because he has frequently found himself in this or that situation but because he has frequently construed and reconstrued those situations.

The eighth corollary, the Modulation Corollary, is that "the variation in a person's construction system is limited by the permeability of the constructs within whose range of convenience the variants lie" (Kelly, 1955, p. 77):

A construct is permeable if it will admit to its range of convenience new elements which are not yet construed within its framework. An utterly concrete construct, if there were such a thing, would not be permeable at all, for it would be made up of certain specified elements—those and not others. Such a construct would have to be impermeable (Ibid, p. 79).

Rigid dogmatism in a certain domain would allow very little permeability whereas an indiscriminate acceptance of almost any new idea in that domain would be excessively permeable. The correct degree of permeability will vary from person to person, domain to domain, and situation to situation, but this much is certain: a construct must have some degree of permeability if it is to change, and change it must—at least occasionally—according to Kelly's dynamic view of psyche as process.

The ninth corollary, the Fragmentation Corollary, is that "a person may successively
employ a variety of construction subsystems which are inferentially incompatible with each other" (Kelly, 1955, p. 83). A person may have and use constructs that are contradictory in a strictly logical sense but are functional for that person in some other important sense. In other words, logically contradictory ideas may sometimes serve a person in his uniquely existential way. Looking at a student from the outside in, a teacher may see contradictions in that student. But this inconsistency might only be an apparent one at the subordinate construct level, being actually resolved—to the student's own satisfaction, at least—at a superordinate level that the teacher does not perceive because it involves constructs that involve much more than mere cognition. This reflects the idea from conceptual change theory that we must look beyond the merely cold cognition of categorization to the hot cognition that involves the whole person in her psychological, social, and spiritual complexity (Pintrich, Marx and Boyle, 1993).

The tenth corollary, the Commonality Corollary, is that "to the extent that one person employs a construction of experience which is similar to that employed by another, his processes are psychologically similar to those of the other person" (Kelly, 1955, p. 90). The Commonality Corollary means that two people in the same observable circumstances and possibly even doing more or less the same things may be having radically different experiences because they are construing these circumstances differently. On the other hand, two people in objectively different circumstances, such as sitting on a mountain top and sitting in a cathedral, may be having similar experiences. The eleventh and final corollary, the Sociality Corollary, is that "to the extent that one person construes the construction processes of another, he may play a role in social processes involving the other person" (Kelly, 1955, p. 95). According to the Sociality Corollary, we form hypotheses about what other persons are thinking or will do. We "construe the construction process of another." Then, in order to see how effective (which is not necessarily to say how accurate) our construal of another's construction is, we test it by means of our interaction. We "play a role in social processes involving the other person."

Having summarized the basic assumptions of PCT and a few of their educational applications, I would like to look next at how PCT sees emotion and behavior, with the focus again on educational applications. After that, we take a very pragmatic turn to present one of PCT's most useful clinical instruments—the Repertory Grid—along with a few suggestions for its possible educational uses.

**Behavior and Emotion: A PCT Interpretation**

Behavior is crucial in PCT but not as in behaviorism. Behavior is the way in which one tests out one's construals in the world of action and interaction. In other words, behavior is the phenomenological and ontological question that we put to reality (Bannister & Fransella, 1986). Through behavior we ask ourselves if our constructs are personally enriching, and we ask the world if our constructs are supportable:

Based on our understanding of others, we act in certain ways towards them and, thereby, test the accuracy of our understandings. In so doing, we put our personal construct systems...on the line. We open ourselves up to validation or potentially quite devastating invalidation from others (Leitner & Dill-Standiford, 1993, p. 138).

As the risky existential gamble that we freely make as we define ourselves through action in the world, behavior opens us up to a world of emotions. Emotion is our experience of, or resistance to, actual or impending change in our construct systems (Bannister & Fransella, 1986). This has obvious relevance to the classroom, where instruction is often highly charged emotionally for both students and teachers. The emotions that PCT defines in its unique way are anxiety, hostility, guilt, threat, fear, and aggressiveness.

"Anxiety is awareness that the events with which one is confronted lie mostly outside the range of convenience of one's construct system" (Bannister & Fransella, 1986, p. 21). A little mystery is good. But too much of the unknown, posing potentially fundamental challenges to our construct system, can make us feel imperiled—at risk of losing our identity and sense of the world. It is the shadow of death. We respond with anxiety.

"Hostility is the continued effort to extort validational evidence in favor of a type of social prediction which has already been recognized as a failure" (Ibid, p. 22). The primary barrier to healthy construct change is clinging to a past construct which may once have served a useful
purpose but now no longer does (Perls, 1958). The more central a construct is to one's definition of oneself the more tenaciously one will cling to it in spite of all experiential evidence that one should let it go or at least change it. Such central constructs are called core constructs (Epting & Pritchard, 1993). The more core a construct the more hostile a person may be in defending it.

Hostility need not be pugnacious or even visibly unpleasant. Indeed hostility is often most effective when it is most concealed. It may, for example, simply take the form of a self-fulfilling prophecy or, in a more extreme manifestation, "it can take the form of the overt paranoid delusion which uses a 'conspiracy' theory so that all evidence is controvertible" (Bannister & Fransella, 1986, p. 22). An anti-Semitic scholar who in spite of all evidence insists that there were no Nazi death camps during World War II is being hostile. So is a researcher who judges the results of an experiment, although admittedly to a lesser degree. Many forms of neurosis, in which the client refuses to let go of an obviously dysfunctional way of understanding or in which the client manipulates a situation despite the pain that it is causing, are hostile. In some cases, too, a student's refusal to incorporate or even consider anomalous data might be seen as a form of hostility in the PCT sense.

"Guilt is the awareness of dislodgement of the self from one's core role structure" (Ibid, p. 23). Constructs exist within us in different domains. If one is a biologist, his construct system for the theory of evolution will probably be more complex than his construct system for windsurfing. That construct system will probably also be more central than his windsurfing construct system to his definition of himself. In this example, his evolution construct system plays a bigger role in defining his core role structure because it is more tied in to his sense of self. It is more existentially charged.

Conceptual Change theorists have already shown that core concepts are the most difficult to change (Dole & Sinatra, 1994). If someone is heavily invested personally in a concept, he is prone to construe any new information, whether consistent with his position or not, as evidence of what he already believed (Garner, 1990). PCT offers Conceptual Change Theory the insight that a person may become hostile to the degree that his existential identity--his core role constructs--are jeopardized by new information. Such hostility is a way of shielding him from the possible guilt of dislodgement from a core role structure.

We must distinguish between core structures and core role structures. "Just as we have a particular core group of constructs by which we try to understand ourselves (core role structures), so we have constructs (core structures) which subsume the most important aspects of the external world for us.... (Bannister & Fransella, 1986, p. 23) Guilt is the response to the challenge of a core role construct dislodgement, whereas threat is the response to the challenge of a core construct dislodgement. And awareness of an incidental core construct change is called fear (Ibid, pp. 23-24). In other words, the difference between guilt and threat is qualitative, but the difference between threat and fear is simply a matter of degree. With guilt one's definition of oneself is under the gun. With threat and fear one's interpretation of the world is under the gun. These terms can further refine the discussion in Conceptual Change Theory about different types and degrees of resistance among students to new information. The variation may have something to do with the fact that some students would feel guilty in accepting the new information; other students might be either feeling fear or sensing a threat because of the new information. Hence, PCT lends its support to the increasing number of voices that are being raised in education against approaches to research and teaching that focus overmuch on either behavior (Bereiter, 1994; DeVries & Kohlberg, 1987; Novak, 1990; Winn, 1990) or the cold cognition of mere ratiocination (Pintrich, Marx, and Boyle, 1993). PCT also provides various terms and perspectives that help refine our understanding of a student's resistance to conceptual change. It proposes that asking a student to transform or replace a construct may, depending on the type and centrality of that construct, create guilt, fear, or a sense of threat in the student. The student may show signs that range from simple denial of evidence to paranoia--as most teachers know only too well. In addition, PCT distinguishes two different types of core phenomena--core structures and core role structures--whereas Conceptual Change Theory has tended to lump all core phenomena together.

The Repertory-Grid

In this section I shall give a brief description of how to construct a repertory grid (repgrid) along with basic statistical procedures for interpreting repgrid results.

A few prefatory remarks are in order.
First, although the repgrid is the best known of PCT's techniques for eliciting a person's construct system in a given domain, there are many other techniques—many of which are completely qualitative (Éping & Landfield, 1985). Second, the fact that the researcher can apply a variety of complex statistical procedures to the repgrid should not cause us to lose sight of the fact that the repgrid is an emergent, phenomenologically grounded instrument (Strauss & Corbin, 1990), meant to help the student/client understand his own world in his own terms (Landfield & Éping, 1987). The educational researcher should therefore avoid using the repgrid in a mechanical way that: 1) is not grounded in PCT's phenomenological assumptions, 2) does not aim at reflecting and fostering the student's existential uniqueness, and 3) focuses overmuch on formulating nomothetic propositions.

Neimeyer (1987) illustrates the basic characteristics of the repgrid by looking at the three steps in the construction of a Role Construct Repertory Test (repiest) for a client named Joan. Joan entered therapy when she was 53 after 29 years of physical abuse by her husband. Wanting to get insight into Joan's construal of the world of intimate relationships, the therapist provided Joan with a standard list of twelve types of relationships. They were: husband, father, mother, best friend, a person who rejected you, a child or someone who depends on you, a person you dislike, a former lover, the happiest person you know, a person who makes you feel uncomfortable, yourself in an ideal marriage, yourself in your present marriage. Such given items are called elements in a repgrid.

Second, the therapist asked Joan to consider three of those elements—her husband, father, and a former lover—and to think of any important way in which two of them might be alike in some way but different from the third. The construct dichotomy that emerged from Joan was "Makes me feel important/Makes me feel inferior." This is thus the first of Joan's emergent polar constructs of the world of relationships. This triadic sorting of elements to elicit constructs is the most common technique of construct elicitation (Éping, Suchman, & Nickerson, 1971). This process was repeated 12 times with different arrangements of three elements each time until the 12 construct dichotomies were elicited. In each triadic sorting, the three elements are generally chosen randomly by the therapist. The twelve construct dichotomies that Joan generated were: makes me feel important/makes me feel inferior, feel protected/feel used, feel loved/feel unloved, can be myself/have to put on a front, accepted for what I am/unaccepted, honest/puts on a show, care about person/hate person, trust/don't trust, responsible/irresponsible, straightforward/conning, feel for person/uncaring, makes me feel mature/makes me feel childish. Although there is nothing magical about the number 12, it seems that after having generated about 12 construct dichotomies the person tends to start repeating them regardless of the types or numbers of further sortings. So 12 seems to be a serviceable number of both elements and construct categories. Using the 12 elements as the horizontal axis and the twelve construct dichotomies as a vertical axis, we now have a 144-cell grid, which represents the intersection of a particular element with a particular construct.

The third and last step has Joan applying her constructs to each of the elements according to a 13-point rating scale (+6 to -6), although scales may range as narrowly as from 1-5. For example, taking the element "husband" and rating it on the construct dichotomy "makes me feel important/makes me feel inferior," Joan assigned the number "-3". However, on the same construct dichotomy she rated the element "yourself in an ideal marriage" "+6". Joan engaged in this procedure until all 144 cells were filled with a numerical rating of how a certain construct applied to a certain element. Various techniques can be used to analyze such results. In this section I shall only mention three: 1) basic content analysis, 2) simple descriptive statistical analysis, and 3) a correlation matrix.

"Among the richest sources of data is the content of the constructs themselves" (Neimeyer, 1987, p. 25). In Joan's case even a cursory glance at her constructs shows that many of her issues involve feelings of inferiority and fears of being used, unloved, and inauthentic—precisely the issues that are often most salient for battered women. Such categories can be further grouped by using post-coding categories that isolate underlying themes in the construct system of a domain (Neimeyer & Gold-Hall, 1987). Other systems of content analysis have been developed in communication (Applegate, 1983), interpersonal relationship (Duck, 1973), death threat (Neimeyer, Fontana, & Gold, 1984), and cognitive anxiety. In any event, simply interacting with the client/student to produce and fill in a repgrid can reveal much to the therapist on an
intuitive level about the person's construal of her world.

Many interesting descriptive results also emerge from this repetest. For instance, if we look at how Joan rated various people on the twelve constructs, we see that she not only has negative perceptions about her husband (83% negative) and her father (67% negative) but also has mixed feelings about her mother (50% negative) and her best friend (25% negative). Also, there are not many people with whom Joan feels important (42%), protected (33%), loved (33%), or authentic (25%).

Simple correlation coefficients can also tell the researcher a great deal about a person's construct system. This allows us to discover connections among Joan's constructs. For example, Joan's feeling important correlates significantly (α=.05) to feeling loved (r=.73). There is also a strong correspondence to feeling accepted (r=.83), and being trusting (r=.89) and mature (r=.79). Conversely, there is little correspondence in Joan's interpersonal universe between, say, feeling important in the presence of a person and the perceived level of responsibility of that person (r=.10). Furthermore, the researcher can use the simple formula $\Sigma(r^2 \times 100)$ to derive a relationship score, which indicates how much variance is due to a particular construct in a person's construct system. Note that those constructs with the highest variance scores might well be the most superordinate ones as well.

Repgrids have a wide and exciting variety of potential applications in education. Among these are getting a clearer picture of: 1) how student and teacher each construe a certain domain, 2) how student and teacher each construe their relational world in the classroom, 3) the differences between how a preservice teacher sees her role as a teacher at the beginning and end of a teacher education program, and 4) how a teacher's view of her profession evolves during her career.

Furthermore, being both phenomenologically grounded but capable of numerical analysis, the repetest represents a balance between qualitative and quantitative research methods. Increasingly, educational researchers are concluding that the most sensible way to resolve the sometimes acrimonious debate between the qualitative and quantitative camps is to draw from both (Gage, 1989). The repgrid is a good example of how this can be accomplished in a single instrument.

THE SOCIAL NATURE OF PCT

The PCT Idea of "ROLE" and "Terror"

A person's self-disclosure through the repgrid occurs in interaction with the therapist, teacher, or researcher (Epton & Prichard, 1993). To generate a repgrid is already to be quite involved in an interactive social process (Neimeyer, 1985). This dynamic is accounted for by the Sociality Corollary. Recall that the Sociality Corollary holds that: 1) we are always involved in construing each other's construals; 2) one of the most important things that we are construing in our construals of others is how they are construing us; and 3) our definition of ourselves—our core role construct system—is all tied up with how we construe that others are construing us. Our self-definition largely grows out of the fertile field of interaction. In interaction, we are always, to a greater or lesser degree, thinking about what the other person is thinking about.

Schmittid (1985, p. 52) has thus observed that "Kelly essentially laid the groundwork for the theoretical integration of the process of self- and other-construal...." Bannister (1985, p. 42) insists that "although the self, at any given point, is often pictured in isolation, construct theory proposes that self is essentially elaborated through, by, for, from, against, and with, others." Leitner (1985, p. 84) concludes that in Kelly's view the person, "which is all his psychology deals with, was only constituted in relation with others; constructs were chiefly available through interaction with others and obtained their meaning in the context of that interaction."

Thus, although it is true that in terms of instructional theory PCT has one foot in the cognitive constructivist camp with its focus on individual consciousness, it is frequently overlooked that PCT has its other foot squarely planted in the Vygotskyan camp of social constructivism. It is in this context that we must understand the key word role in the Sociality Corollary: "To the extent that one person construes the construction process of another, he may play a role in the social processes involving that person." By role Kelly does not mean some "socially prescribed dialogue" (Bannister & Fransella, 1986, p. 34) whose terms, already set before the participants enter into it, prevent authentic encounter in the dialogic process. Good examples of this are the rigid traditional roles that teachers and students often enact on the stage of the inauthentic classroom. In existential terms, such culturally deter
mined scripts (Tomkins, 1987) render a person the object, not the agent, of discourse.

To distinguish between the culturally prescriptive view of roles and PCT's existentially sensitive one, Leitner (1985) renders the former as role and the latter as ROLE. Viney (1987) has observed that the ROLE relationship is very similar to Martin Buber's (1958) "I-Thou" relationship. Like the "I-Thou" encounter, the ROLE relationship is risky business. As the ROLE relationship deepens, a person is necessarily opening up his core role constructs to the other person with deepening intimacy. This subjects them to the test of reality and the scrutiny of the other. It exposes them to the frightening prospect of invalidation and the need for personal change.

Despite its potential rewards, then, the ROLE relationship exposes us in fundamental ways and so naturally evokes in us the full range of emotions: anxiety, fear, threat, hostility, and guilt. This is what Leitner calls the terror of relationship (Leitner & Dunnett, 1993). We must pay for the privilege of real encounter in potentially costly emotional coinage. PCT does not mean to be creating a bleak scenario here but merely a realistic one—one that is, in fact, quite rich:

Risking the terror of ROLE relationships is also the only way in which we can discover ourselves and others.... Thus, along with the dangers of being involved with another's core is the satisfaction of discovering what it means to be human. (Leitner & Dunnett, 1993, p. 12)

Our only alternative to ROLE relationship is to retreat from vital interpersonal encounter into avoidance. This may involve anything from hiding in socially prescriptive roles to sexual manipulation (Leitner & Dill-Standiford, 1993). PCT exhorts each person to discover her own existential authenticity in ROLE relationship. Moreover, ROLE relationship should set the standard for classroom interactions between teacher and student as well as between student and student (Duck, 1985).

Educational Implications of PCT's Socio-Phenomenological Perspective

The Sociality Corollary alerts us to the fact that in student-teacher (as in client/therapist) interaction, both participants are, ideally, mutual-

ly constructing a micro-world of discourse (Epting & Prichard, 1993; for a sociolinguistic perspective on this, see also Bernstein, 1971, 1972; Halliday, 1978, 1984; Heath, 1983; Au & Kawakami, 1985; Gee, Michaels, and O'Connor, 1992). The goal is for student and teacher to be engaged in what PCT calls a "learning conversation" (Thomas, 1985) from which both stand to benefit precisely because both risk the terror of being changed (Leitner & Dill-Standiford, 1993). Consequently, teacher and student may create a vital and sensitive "culture of learning" in which cognition is existentially situated (Brown, Collins, & Duguid, 1989). Through this dialogic process knowledge can be: 1) interpersonally created, 2) culturally sensitive, and 3) not institutionally imposed.

SOME RECENT TRENDS IN THE THEORY OF RESEARCH AND VINEY'S (1987) MUTUAL ORIENTATION MODEL

Researchers in psychology and the social sciences (Fay, 1987; Mishler, 1990) as well as in education (Jansen & Peshkin, 1992; Lincoln & Guba, 1985; Patton, 1990;Quantz, 1992; Woods, 1992) have recently been insisting that the idea and ideal of objectivity in research is illusory. The researcher, no matter how rigorously she may try to partial out her own subjectivity, will inevitably design, conduct, and interpret research from her own phenomenological standpoint. As Heidegger (1964) argued, one simply has no way of jumping behind one's own subjectivity. As phenomenologically bounded creatures, the fact-world must for us always be bracketed (Husserl, 1965). Gadamer (1991) went even further, arguing that the very questions one poses are so determined by one's fundamental (and fundamentally subjective) position that a question is ultimately an elaboration in interrogative form of that position itself. A question is not, then, a value-free foray into a world of declarative facts. For what we know how to ask is determined by where we are already phenomenologically grounded. The question already defines the range of answers. In short, our subjectivity limits the questions we are able to ask, determines the designs it will occur to us to impose on an inquiry, and sets the parameters of our interpretive acts.

In PCT terms, even before being an educational researcher (which may indeed be simply a core role construct!) a person is primarily a construer. She is someone who projects mean-
ing at least as much as she discovers it. Simply put, the researcher *does* research from a perspective that is inevitably personal. She is subjective because she is human. And donning the title of researcher does not magically enable her to doff that humanity. Furthermore the researcher is not only limited at the *a priori* level simply because she possesses a consciousness at all, she is also limited at the *a posteriori* level because she is a historical being who possesses this particular consciousness. As Fay (1987, p. 191) has insisted, each individual consciousness has been shaped over a lifetime by the exigencies of its individual, local, and cultural historicity. We are embedded in our personal and collective circumstances so thoroughly that their messages have by now become embodied in us—neurologically imprinted upon us. (One is reminded here of the PCT insistence that constructs may be preverbal. To change them, then, may often literally involve the whole person.) Of course, the educational researcher is just as embedded and embodied as her so-called subject. Both are always engaged in a similar process of elaborating and testing personal constructs. It makes little sense, then, for a researcher to lay claim to some sort of preconstructive objectivity (Mishler, 1990). It is for this reason that Critical Theory in education contends that any research project is inevitably political (Apple, 1990; Lincoln & Guba, 1985; Roman, 1992).

In place of objectivity and validity in educational research, Peshkin (1985) argues that we should adopt the more attainable goal of intersubjective agreement about research findings among a discourse community of experts. He says that such intersubjective agreement will produce a form of viable subjectivity that is not to be confused with mere subjectivism. Mishler (1990) makes essentially the same point in his notion of validation by a research community. Hence, educational researchers such as Patton (1980, 1990) call for pragmatic validation by the intended audience. Lincoln & Guba (1985) insist upon trustworthiness—i.e., the political credibility and utility of results. And Pittman and Maxwell (1992) speak of referential adequacy, which refers to "enlarg[ing] the reader's perception and understanding of an [existentially specific] subject" (p. 748). At any rate, all focus on the idea that the researcher, no less than the person being researched, construes from perspectives and needs that are emotional, professional, political, cultural, and even physical. To assume otherwise about herself—to see herself as comfortably ensconced in an objective methodology that provides a safe distance between her and the subject—may actually be a defense mechanism, a flight from the terror of encounter (Leitner, 1985), an exercise in interpersonal control (Dunnett & Miyaguchi, 1993), or a simple unwillingness to reflect on one's own role as a researcher (Quantz, 1992).

It is possible to sum up all this up by using PCT terms. Research must view both the researcher and her participant in light of the Sociality Corollary as construing agents in a social interaction. Each is equally bringing to the research situation a construct system. The interplay of these construct systems may truly lead both participants to create new knowledge in ways that are uniquely meaningful to each. As educational researchers, then, we not only shape but must also be shaped by our research. Viney's (1987) Mutual Orientation Model, to which I now turn, shows how elegantly PCT handles these important issues in educational research.

**The PCT View of Research: Viney's Mutual Orientation Model**

The Mutual Orientation Model lays out five pragmatic guidelines that will help us as educational researchers to become more reflective and humane in the practice of our craft (Alderferer, 1985; Grant & Fine, 1992). The Mutual Orientation Model is not a specific instrument but criteria by which one can either modify research instruments or create new ones. It has five stages:

At the first stage the researcher makes a request of the co-researcher [or "subject"]. At the second, the co-researcher responds. At the third, the researcher reflects on the response of the co-researcher. At the fourth, the researcher reveals the results of that reflection to the co-researcher. At the fifth, the co-researcher confirms or denies that reflection (Viney, 1987, p. 153).

This model addresses several issues already discussed in this section. First, it turns the research process into an interactive one. There is a more even distribution of power between the researcher and co-researcher (i.e., the *subject*). Each person is recognized as a fully construing agent who is bringing his own construct system to a specific form of social
encounter called research. This addresses that political imbalance between the researcher and the subject that can give rise to thorny ethical dilemmas. Second, the co-researcher participates with the researcher in the interpretation of data and can even do so in the design of the research itself. This may produce not only emergent instruments within the context of the research project (Schensul & Schensul, 1992), but it more securely grounds the project (Glaser & Strauss, 1967). Existentially invested at various levels of the research process, the co-researcher thus stands to gain intellectually, emotionally, interpersonally, and politically by the research (Woods, 1992). Third, ROLE engagement in the Mutual Orientation Model furthers existential authenticity through deepening communication. This is a powerful antidote to experimenter/subject expectancy—those viruses such as the Pygmalion and Hawthorne effects that so often plague educational research.

I would like to close this section by noting that the PCT model is also relevant to the increasing trend in educational research to use life-history interviews in the longitudinal study of teacher self-awareness and professional development (Bullough & Gitlin, 1995; Huberman et al., 1993; Farraday & Plummer, 1979; Raymond & Butt, 1987-88). For, life-history educational research is ultimately a joint construction between researcher and co-researcher, a double biography of sorts (Watson & Watson-Franke, 1985, p. 363) in which introspection is essential not only for the co-researcher but also for the researcher (Alderferer, 1985). When both participants strive to meet this requirement, then the life-history interview truly becomes an interview. As such it is firmly grounded. Using the Mutual Orientation Model, researcher and informant grow more sensitive to each other’s moral space (Bullough & Gitlin, 1995).

**PERSONAL CONSTRUCT PSYCHOTHERAPY (PCPT) AND EDUCATION**

This section looks at the fundamentals of PCPT and then turns to their educational applications.

Stated simply, the goal of PCPT is the client’s liberation (Bannister & Fransella, 1986, p. 28) from contradictory constructs (Ibid, p. 132) that are keeping the client stuck in perspectives that may once have served a useful purpose but no longer do. He is having trouble elaborating his construct system. Therapy offers him a setting in which he can (re)discover how to elaborate (Bannister & Fransella, 1986). Therapy accomplishes this by providing the client with a mini-world (Epting & Prichard, 1983) in which he can generate and test out new constructs with the therapist. The Sociality, Choice, and Experience Corollaries provide the theoretical basis for this process. For it is in relationship with the therapist that the client may choose new constructs. He can then keep, modify, or reject such constructs after experiencing them in the therapeutic setting.

As in the relationship between researcher and co-researcher, the one between the therapist and client should be a ROLE relationship. It is only in such a relationship that the client will be able to devise and try out his new constructs in a psychologically authentic way. This opens up the therapist as well as the client to the terror of an encounter in which both participants may experience anything from minor to major core and core role restructuring. The therapist cannot hide behind the role of expert, which is very likely just a defense against terror (Dunnett & Miyaguchi, 1993). To be a therapist thus requires courage. Lacking this courage and not dealing with her own issues, the therapist is all too likely to use her misconstructions to play into those of the client’s. The unfortunate result of this is called “therapeutic collaboration” (Epting & Prichard, 1993)—PCT’s term for the classical psychoanalytical concepts of transference and countertransference.

Ideally, the therapist works with, not on, a client (Bannister, 1985; Bannister & Fransella, 1986). Seen in this light, therapy is based on reciprocity (Neimeyer, 1985, p. 274). It is a "learning conversation" (Thomas, 1985) from which both discussants grow. It is critical that the therapist approach the client with reverence (Epting & Prichard, 1993) as a complex, unique constructor who has complex and unique constructs— not as just another instance of a disorder to be found in the DSM-IV. The therapist must understand, in short, that her client is in pain because of his frustrated need to elaborate.

What traditional psychotherapy has tended to see as symptoms and label as dysfunctions PCPT prefers to redefine as "legitimate construction processes." For the client is essentially engaged in a process that engages us all (albeit with different degrees of danger and promise) as we struggle to elaborate in an uncertain and often perilous world. PCPT thus redefines disorders in terms of construing. Depression is seen as the
client's feeling that he has no possibility of elaboration (Dalton, 1993). Neurosis is seen as a more or less global refusal to reconstruct (Epting & Prichard, 1993). This refusal may grow more intense as core constructs and core role constructs come under increased challenge (Epting & Prichard, 1993).

The therapist should bear four factors in mind in promoting construct change: 1) superordinate constructs are more difficult to change than subordinate ones (Bannister & Fransella, 1986); 2) elaboration of one's constructs may represent a challenge to another construct which is still quite useful, and this is why some apparent dysfunctions are actually meaningful in that they are protecting some viable construct (Ibid); 3) the anxiety that often accompanies reconstruction is natural and often healthy and need not be considered a problem unless it is blocking reconstruction; and 4) change may in fact be occurring, although it is not evident to the therapist, because that process is still moving along a subordinate path and has not reached a superordinate level. In Conceptual Change theory, Dole & Sinatra (1994) seem to be referring to very much the same notions in their interpretation of what is called the indirect path to persuasion.

To be most effective, the therapist must maintain what PCPT calls "optimal therapeutic distance" (Leitner & Dill-Standiford, 1993). This means that she must neither get so emotionally close to the client that she loses her own moorings and get swept up in the client's dilemmas, nor should she stay so aloof from the client that there is never a role relationship. When a therapist's effectiveness gets compromised because she is too close, PCPT says that "therapeutic unity" has occurred. When the therapist is not close enough, then she and the client are "therapeutic strangers" (Leitner & Dill-Standiford, 1993).

PCPT argues that the therapist should honor and even defer occasionally to a client's resistance. That resistance may be preserving a part of the client's core that the therapist cannot see—or seeing, cannot understand (Epting & Prichard, 1993). The resistance may also be the client's way of communicating to the therapist that the therapist has made a mistake somewhere along the way and that it needs to be rectified before the process can go on (Fransella, 1993). It may also be the client's way of telling the therapist that the process is moving too fast for the reconstruction to take (Ibid). In short, resistance, either blatant or subtle (Leitner & Dill-Standiford, 1993), may be due more to the therapist than to the client. Resistance may serve other functions as well. It may be a clue that the client ultimately sees change as an impossible ideal. In such a case, it may be necessary to help the client restructure her constructs of success and failure (Dalton, 1993). (The same restructuring may be of great value in helping students who see themselves as unsuccessful by helping them more realistically and productively restructure what constitutes a scholastic success.)

The client may also be resisting because her problems give her a sense of uniqueness. It may also be that the client is simply not willing to risk the potential guilt, threat, and fear that radical structural change usually entails. In such cases, the client and therapist must decide whether to give up therapy (or system-wide change) in favor of counseling (or only specific changes that generally leave the pre-therapeutic system relatively unchallenged) (Fransella, 1993). This is often a difficult decision for both therapist and client.

In sum, it is clear that: 1) resistance is a complex process; 2) it may sometimes be more due to the therapist than the client; 3) it is something that we all do, not just dysfunctional people; 4) it may be sending important messages or serving important functions; and 5) it can be addressed at different levels ranging from the specific to the global.

Educational Applications of PCPT

Obviously, the relationship between the therapist and client differs in important respects from the one between the teacher and student. Nevertheless both sets of relationships have important similarities. Both involve the mutuality of roles. Both involve a certain degree of terror and resistance. Both are ideally learning conversations. And both may work towards a mutual (re)construction of reality. Both, in short, are instances of the Sociality Corollary. Thus it is not surprising that PCPT should apply to educational practice. The following are a few of those applications.

PCPT lends substantial support to the increasing insistence among Conceptual Change theorists that cognition is not cold but is hot because it involves the whole person not just his cognitive processes (Pintrich, Marx, & Boyle (1993). It also involves the whole person in a dialogue, in a "learning conversation" (Thomas, 1985). As with the therapist, then, PCPT would
encourage the teacher to see his students as people whom he is working with, not on (Bannister & Fransella, 1986) in that universe of discourse called the classroom. PCPT strengthens the call by such social constructivists as Brown, Collins, and Duguid (1989) to create classrooms which are "cultures of learning." In such "cultures of learning" the role of the teacher is often seen as master artisan to his apprentice students. This is called the apprenticeship model (ibid). And here the PCT notion of "optimal therapeutic distance" (Leitner, 1993) is quite useful in helping the teacher understand his role in such a context. He should not get too close to his students that his effectiveness as a master artisan with his apprentice students is compromised by excessive intimacy ("therapeutic unity"). Nor should the distance between him and his students be so great as to preclude ROLE encounter ("therapeutic strangers"). As Huberman et al. (1989/1993) and Bullough and Gitlin (1995) have shown, these questions of psychological proximity and boundaries are important for all teachers, but especially beginning teachers.

PCPT's view of resistance also offers valuable insights for Conceptual Change Theory. Much Conceptual Change research centers around why students cling to concepts that are logically inconsistent with new information that they are receiving (Chinn & Brewer, 1992; Dole & Sinatra, 1994; Linn & Songer, 1991; Pintrich, Marx, & Boyle, 1993). PCPT offers a consistent vocabulary and effective methodology to cast light on how and why such resistance to instruction occurs.

First, PCPT suggests that a student's unwillingness to change a construct may be serving a useful function of protecting some other constructs that--although not apparent to the teacher--are important to the student personally, politically, or culturally (Deyhle, 1986; Giroux, 1983). A certain degree of resistance, in other words, may not only be inevitable in certain cases but even healthy as a sign of the student's personal, political, and cultural efficacy. This also helps make sense of why there are so many different types and degrees of student resistance (Chinn & Brewer, 1992). Second, PCPT holds that simply because a therapist does not see construct change taking place does not necessarily mean that it is not happening. The client may not be resisting but may be involved in a "legitimate construction process" which is following the client's own rhythm, not the therapist's sense of what the pace of change should be (Fransella, 1985). The therapist must try to be aware of the client's psychic pace. Similarly, various Conceptual Change theorists have argued that if real conceptual change is to take place, it must happen in a way that does not clash with the student's personally generated and personally meaningful "pragmatic principles" (Linn & Songer, 1991) and "synthetic models" in a given domain.

Third is Fransella's (1993) contention that therapy (or system-wide reconstruing) must sometimes yield to the more limited process of counseling (or change regarding a specific set of constructs only, leaving the system as such more or less unchallenged). The same idea appears in educational research in Vosniadou and Brewer's (1987) observation that conceptual change may be domain-specific and weak, and not necessarily global and radical. Fransella contends that it sometimes is both practical and legitimate to focus on counseling instead of therapy when it becomes obvious that the client is not willing to risk the guilt or threat that radical change might cause—at least at this point in the client's process. Similarly, more research needs to be done in education regarding when teachers should content themselves (at least provisionally) with weak and domain-specific conceptual change instead of pressing for those more global, epistemic changes that (for whatever reason) simply pose too much existential danger to the student.

Fourth, PCP contends that resistance may have at least as much to do with a therapist's blunders as with a client's problems. The client may be resisting in order to let the therapist know this. As educators this provides a humbling but necessary reminder that not everything we call resistance necessarily is resistance. It may be a case of the student merely holding up a mirror to the teacher or institution to reveal their inadequacies.

CONCLUSION

For the researcher and teacher, PCT is a treasure chest of principles and tools that can enrich the theory and practice of education. Unfortunately, educational theorists and practitioners in the United States have largely been unaware of PCT and its exciting potential regarding such issues as conceptual change, student-teacher relationships, teacher development, the politics of educational research, and the institutional imposition of knowledge. Hopefully, this paper will play some role, however modest, in
helping to stimulate further research regarding the many educational applications of Personal Construct Theory.

REFERENCES


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