

TRANSDISCIPLINARY, MULTILEVEL ACTION RESEARCH TO ENHANCE ECOLOGICAL AND PSYCHOPOLITICAL VALIDITY

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The authors explore the implications of recent proposals for a focus on power and social change in community psychology research and add needed contextual and methodological specificity. An expanded model of psychopolitical validity is presented that merges Isaac Prilleltensky's (this issue, pp. 116–136) domains, or stages of empowerment (oppression, liberation, wellness), with four ecological context domains (physical, sociocultural, economic, political) and greater clarity regarding levels of analysis. The physical–environmental context is used to illustrate some of the questions that may be generated by the expanded model. After discussing the role of democratic freedoms and institutions and the equitable distribution of decision-making power in sustainable community development, the case is made for action research as a potent paradigm to move the field toward those goals. Multilevel and spatial analyses and transdisciplinary research (conceptually and/or methodologically integrative collaboration across multiple disciplines) are underutilized in Community Psychology. © 2008 Wiley Periodicals, Inc.

INTRODUCTION

Community psychology has searched for its core identity throughout its history. Recent articles have endorsed a shift toward a more explicit focus on social change and power (Itzhaky & York, 2003; Mulvey et al., 2000; Speer, 2000; Speer et al., 2003). Prilleltensky's article (this issue, pp. 116–136) takes that argument to its logical conclusion by advocating a new type of validity criterion that community researchers

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should use — “psychopolitical validity,” or the degree to which research addresses power issues and interventions engage in structural change. Psychopolitical validity is a critical articulation of Community Psychology’s earliest values and its recognition that mental health and well-being are necessarily tied to social and political change.

A change as fundamental as proposed by Prilleltensky requires both thorough elaboration and exploration of the implications of the proposed shift in focus. In this article, we contribute to those goals first by viewing psychopolitical validity within the context of various ecological domains, levels, and processes, with special attention to the role of the physical environment. We also examine how other disciplines have understood and studied the relationship between knowledge and power. We then propose participatory action research as a paradigm that should be more widely and fully used by community researchers. Transdisciplinary collaborations and multilevel analyses would help strengthen this approach.

ECOLOGICAL VALIDITY AS A NECESSARY CONCOMITANT TO PSYCHOPOLITICAL VALIDITY

Ecological theories have provided a set of guiding principles and key values for Community Psychology since its earliest influences (Heller et al., 1984; Kelly, 1966; Levine, Perkins, & Perkins, 2005; Mann, 1978). The tendency has been for those principles to be listed and described in textbooks, occasionally applied to interventions in a general way, but rarely, less specifically, and less systematically to community research.

The concept of ecological validity refers most narrowly to the degree to which the definition of a unit of analysis reflects the way that unit is defined in real life by people or natural features (Perkins, Florin, Rich, Wandersman, & Chavis, 1990). For example, a neighborhood defined by the boundaries and name used by people who live there is more ecologically valid than a census tract used as a proxy for the neighborhood.

A broader, more fundamental use of ecological validity is the idea that research should attend fully and carefully to the many contexts of phenomena, including multiple levels of analysis, various environmental domains (sociocultural, physical, economic, political), and the dynamic context of capturing change over time. These are analogous to the different forms of capital that have been applied to community development projects and policies (Perkins, Crim, Silberman, & Brown, 2004).

Prilleltensky’s argument for psychopolitical validity is important as a general critique and vision for Community Psychology. Its generality is also a limitation in that it is decontextualized. His framework includes the personal, relational, and collective levels of analysis, but they are not clearly or thoroughly articulated (Prilleltensky refers to these as “domains,” but we think it clearer to call these “levels of analysis or intervention” to distinguish them from substantive domains of the environment and different disciplines, see below).

The relational level is particularly ambiguous, or at least broad, as it could mean anything from social perceptions, attitudes, and behaviors of individuals, dyads, or groups to organizations, networks, and potentially to complex interinstitutional relations, although there is less specificity in the article about those higher levels. We recommend either clearly separating the informal relational (interpersonal dyads, support networks) from formally organized groups, organizations, and institutional

networks or lumping the informal social behaviors and relationships in with the “personal” (individual) level.

What we are calling for is equal emphasis on, if not a merging of, ecological and psychopolitical validity. Levels of analysis must be made clear and specific. As shown in the vertical axis of the three-dimensional Figure 1, similar to Prilleltensky (this issue, pp. 116–136) and Bronfenbrenner (1979) and others, we suggest at least three key levels: First is the individual (or personal or psychological—emotional, cognitive, behavioral, spiritual). At the individual level, we would more explicitly add interpersonal microsystemic relationships. At the mesosystemic level are groups, voluntary associations, and other local organizations and networks. At the macrosystemic or “collective” level are communities, institutions, and social structures.

The ecological domains (depth dimension of Figure 1) imply a critical need for truly transdisciplinary research to adequately understand the sociocultural (psychology, sociology, and anthropology), physical (environmental planning and design research, environmental branches of psychology, sociology, economics, etc.), economic, and political ecologies. A step in the right direction is to read and adapt the literature of other relevant fields. Significant progress in integration is even more likely when scholars from the various disciplines collaborate closely and begin to develop programs of research that are fully transdisciplinary. An example of the potential usefulness of collaboration is the Frankfurt School of Social Research, which was a transdisciplinary effort by theorists and researchers with specialties in philosophy, sociology, economics, psychology, as well as other substantive areas.

Stokols et al. (2003) define transdisciplinary science as “collaboration among scholars representing two or more disciplines in which the collaborative products reflect an integration of conceptual and/or methodological perspectives drawn from two or more fields” (pp. S23–S24). Very shortly after the birth of Community Psychology, this became a major goal of the discipline (Mann, 1978). However, it finally gained some momentum with Kenneth Maton’s 1999 Society for Community Research and Action (SCRA) Presidential agenda to develop more active interdisciplinary links with other areas of psychology and other fields and professional associations. Across the social sciences, there has been a trend toward a blurring of the boundaries between distinct disciplines and fields. In this sense, Community Psychology has been ahead of its time, at least within psychology. As the SCRA Interdisciplinary Task Force has discovered, however, true exemplars of *collaborative* interdisciplinary (i.e., transdisciplinary) community research are very hard to find. What follows is an attempt to conceptualize the field advancing further along this trajectory toward research that has both ecological and psychopolitical validity.

As depicted in Figure 1, it is possible to think of the domains of oppression, liberation, and wellness as lying on a temporal dimension, or at least that is the goal. The oppressed become liberated, which leads to social, material, physical, and spiritual wellness. Regardless of whether some might argue that a degree of wellness is required before the hard work of liberation can occur, change over time is an important ecological dimension that may be informed by developmental theories at the human, organizational, and community levels (Omprakash, 1989; Perkins et al., 2004) and “modeled” through longitudinal research designs, narrative analysis (Rappaport, 1995), case studies (Flyvbjerg, 1998), and other methods.

This merger of levels of analysis, ecological domains, and processes is not intended as a classificatory rubric, but as a sort of disaggregation or deconstruction. It provides a way of understanding relationships between types of social research that might

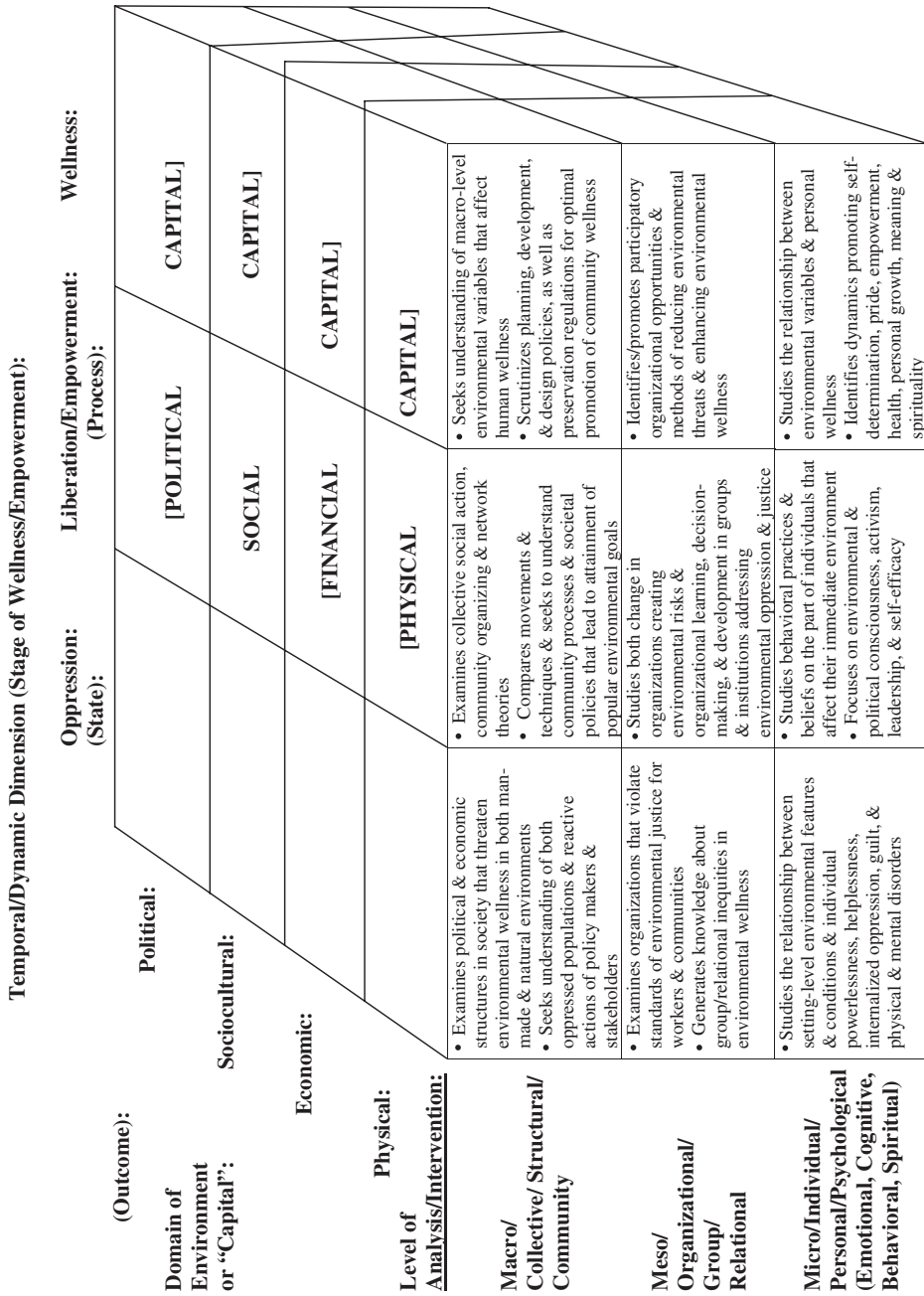


Figure 1. Comprehensive ecological model for community research and action: Analyzing power dynamics across four domains of capital and three levels.

otherwise be understood in isolation. The utility of Figure 1 is primarily in the reconstructive exercises that will take place as theorists and researchers contemplate connections between levels, domains, and processes. This conceptualization does not locate power within any specific level, domain, or process. This is consistent with the following distillation of Foucault's (1980) writing on power, "power is everywhere... this disrupts the dichotomies of macro/micro, central/local, powerful/powerless, where the former are sites and holders of power and the latter the subjects of power" (Kothari, 2001, p. 141).

Example: Physical Environmental Domain

We are calling for more transdisciplinary theoretical, empirical, and applied work linking the domains and levels of analysis across time. To explicate Figure 1, however, it is helpful to explore a single ecological domain in more detail within the context of psychopolitical validity. The physical environmental domain illustrates the complexities in achieving both ecological and psychopolitical validity, even when dealing with a single domain. This brief description necessarily leaves out many important elements and dynamics.

Physical environmental factors, although often taken for granted and thus overlooked, frequently interact with the phenomena of interest to community psychologists. Although Community Psychology has traditionally focused more on social environments, there are many inherent and transactional ties between the physical environment and the social environment (Altman & Rogoff, 1987).

The nine boxes that are visible in Figure 1 serve to illustrate ways in which environment and behavior theories, physical-environmental prevention and intervention efforts, and environmental empowerment movements may apply to Prilleltensky's levels of analysis and oppression, liberation, and wellness concerns. Similar to economic, sociocultural, and political domains, physical environments are often the expression of power issues and relationships at the personal, relational, and collective levels. Identifying these connections between community, environmental, and political theories and issues contributes ideas and potential areas of intervention not only to Community Psychology, but also to the other fields involved.

At the personal/psychological or microsystemic level, many individuals are oppressed by environmental degradation. Some of the earliest research in the field focused on environmental attitudes, beliefs, and cognitions (e.g., toward the risks associated with specific environmental threats and toward control of those risks; Sundstrom, 1977). This work is inherently political in that it has been used to determine whether public concerns are seen as rational or not (Wandersman & Hallman, 1993). The most extensively studied topic in this area is environmental stress (Cohen, Evans, Stokols, & Krantz, 1986), which can be caused by a variety of factors from industrial accidents (Baum & Fleming, 1993) to crowding, noise, and traffic to fear induced by physical signs of disorder (Perkins & Taylor, 1996). Neighborhood setting impacts on physical and mental disorders and wellness has been a particularly prominent research topic of late (Kawachi & Berkman, 2003; Shinn & Toohy, 2003; Stokols, 1992; Wandersman & Nation, 1998). The psychopolitical validity test in this example might be whether the research clearly points to causes of environmental stress that lead to community mobilization or other political solutions (McGee, 1999).

What is only beginning to be understood and facilitated at this level are individual positive, liberating environmental behaviors (e.g., recycling, conservation, transit use,

consumer decision-making; Werner, 2003) as well as environmental conditions for individuals' internalized oppression (helplessness, guilt), liberation (self-determination, pride, empowerment; Rich, Edelstein, Hallman, & Wandersman, 1995), and personal growth, meaning and spiritual wellness.

At the organizational or mesosystemic level, the concept of environmental oppression includes actions or organizations that violate standards of environmental justice (e.g., Culley, 2003) for workers and communities resulting in inequities in opportunity for environmental wellness. Research exists on racial and class disparity in environmental wellness as well as the liberation processes that communities have implemented (e.g., Bryant, 1995). Relational liberation from oppression in the environmental domain includes actions taken to improve practices and decisions in both organizations that create environmental risks and ones addressing environmental oppression and justice. Among other strategies, this would entail participatory organizational opportunities for reducing environmental threats and enhancing environmental wellness. Service-learning projects addressing problems in the built and natural environment can also be a good way to empower students of all ages (Werner, Voce, Openshaw, Simons, 2002), especially if political and economic aspects are addressed, ideally in the service, but at least in the learning.

At the collective/macrosystemic level, there are societal factors that lead to environmental oppression in both the built and natural environments and environmental hazards that impact entire communities (Edelstein, 2003; Hughey, 1986). Examples of collective liberation tend to be based on community organizing, action, empowerment, and political change. Research on collective liberation in the environmental domain compares movements and techniques and seeks to understand processes that lead to attainment of popular environmental goals. The physical environment can also be a strong catalyst for community mobilization, participation, and empowerment (Perkins et al., 1990; Rich et al., 1995). Environmental wellness research seeks to understand macro-level environmental variables that affect human wellness. This includes scrutinizing design and development policies, as well as environmental preservation regulation for optimal promotion of wellness and political, economic, social and ecological sustainability (Bonnes & Bonaiuto, 2002; Perkins et al., 2004).

Not surprisingly, psychologists have paid far more attention to the individual level than the other levels, despite the clear and important psycho-behavioral implications for organizational and community-level oppression, liberation, and wellness. Not only do links exist between these levels of analysis, but also the way in which the resources of the natural and built physical environment are managed cannot be effectively evaluated without attention to social, economic, and political domains (Perkins et al., 2004). Theory exists to encompass many of these dynamics (Campbell, 1996), but research that incorporates the subjective and community dynamics of physical environments is scarce. Despite what is known about how to affect policy (Kuo, 2002; Perkins, 1995), community and environmental psychologists have largely neglected the critical role of political advocacy.

COMPLEXITIES AND CHALLENGES IN ACHIEVING PSYCHOPOLITICAL AND ECOLOGICAL VALIDITY

To successfully act on the recommendations of recent community psychology theorists (Prilleltensky, 2003; Speer et al., 2003; Tseng et al., 2002, Watts, Williams, & Jagers,

2003) and conduct research on social change, sociopolitical development, power, and transformation, researchers have many things to take into consideration. These writings and others are a call to move social change research with psychopolitical validity to center stage in research and action. Merging the psychopolitically valid with the ecologically valid is one of the inherent epistemic complexities involved in this type of research and action.

A change that does not address both forms of validity—psychopolitical and ecological—risks creating a positive change for one facet of a community to the serious detriment of another, or of applying an ameliorative salve to symptoms of more complex problems. There is an inherent challenge in researching change of any kind: identifying whether it is truly a change that is contributing to personal, relational, and collective liberation from oppression and wellness. Blending ecological and psychopolitical validity requires attentiveness to multiple levels of analysis and power dynamics within systems (Speer & Hughey, 1995).

Power

Specific power relationships are difficult to identify for empirical study. They are also difficult to qualify or quantify once they have been identified (Gaventa, 1980). In this area, philosophical and discourse analytic approaches have traditionally met with greater success. The inclusion of psychological power in definitions of power implies that power is a complex combination of subjectivity (in personal experiences and understandings of power and empowerment), and somewhat more objective abilities to exercise self-interest. As long as most social and community research continues to exclude or underemphasize the power differentials that affect wellness, it will forfeit a great deal of relevance, especially in work with groups that are relatively lacking in power.

Although Community Psychology has had a significant role in defining and measuring the concept of empowerment (Rappaport, 1981; Perkins & Zimmerman, 1995), power itself has not been central in the discussion (Bostock & Smail, 1999; Serrano Garcia, 1994; and Speer et al., 1995, 2003, are among exceptions). The ability of an individual or group to exercise self-interest within the community has been studied as “decision-making power.” Sociologists, who have been studying community power since the 1920s, have engaged in an ongoing debate about the role of power in urban community politics in the United States. One group of researchers argues that the system is pluralistic and relatively inclusive of diverse interests, and the other group argues that the system is predominantly controlled by the elite or elite interests.

One of the most influential works to come out of North American urban community sociology is *Community Power Structure* (Hunter, 1953). Based on a study of Atlanta, Hunter’s theory is that the political decision-making at the community level is almost entirely dominated by elites. Dahl’s book *Who Governs?* (1961) is, in some ways, a rebuttal to Hunter’s work. Dahl’s thesis is that decision-making is much more pluralistic. These two competing ideologies have been in opposition since the 1960s (Clark, 1967; Hajnal & Clark, 1998). As Rae (2003) points out, however, these studies are confined to the city government alone, which has itself become a less powerful institution.

The community power and decision-making studies to come out of community sociology demonstrate that there are traps to be avoided in efforts to shift research foci to the role of power—if doing systemically transformative work is also a priority.

Although they are often methodologically rigorous, the community power studies focus primarily on ideological debates concerned with normative community functioning, and are consequently of limited applicability in efforts to create community change. In light of such attempts to effectively conceptualize power, Prilleltensky (this issue, pp. 116–136) offers parameters for clarification both for research and applied purposes. He points out many of the hidden operations of power and goes a long way toward clarifying (and complicating!) the task of studying it.

In addition to the complexities in the study of somewhat overt decision-making power, there are myriad more subtle ways that power manifests itself (Lukes, 1974). One of the most difficult manifestations to understand is the power in knowledge systems, generation of knowledge, and dissemination. The link between knowledge and power has been discussed many times (e.g. Foucault, 1980; Prilleltensky, 1994; Unger, 1975). Knowledge also plays a key role in Community Psychology's conceptions of empowerment (Speer, 2000). If Community Psychology's work is both knowledge work and power work, and we acknowledge that communities have different relationships to power, it will follow that these communities will have different relationships to knowledge.

Knowledge Systems and Relationships to Power

Communities do vary greatly in their relationships to knowledge (epistemologically and ontologically). Although Western knowledge systems have achieved considerable global hegemony, alternative knowledge systems continue to survive in many indigenous cultures. Recognition of this fact has led to the study of indigenous knowledge systems (IKS; Warren, Slikkerveer, & Brokensha, 1995). As Hess (1997) demonstrates in her ethnographic work on the indigenous people of the Ecuadorian Andes, subjective experience of the world is central to understanding development toward greater wellness in communities. Hess states, "lack of understanding, miscommunication, and negligent behavior are related phenomena and quite regular occurrences in development projects around the world... [failures are] likely to happen because many change agents ignore the existence and content of indigenous knowledge" (p. 5).

Those who operate within the knowledge systems of traditional indigenous beliefs in Ecuador tend to view people and objects as possessing a certain type of spiritual power that is very different from the western scientific definition of the concept. Thus, some indigenous communities not only have a different relationship to power, as North American development researchers understand it, but also tend to have a unique understanding of the etiology of community phenomena that are power related.

Hess (1997) details a series of failed development projects in the Ecuadorian Andes and attributes their failures to the researchers' lack of understanding of the indigenous knowledge systems that they perceived to be inferior. Building on the concepts of dialogue and cultural synthesis from Freire (1970) and Habermas (1984), Hess states:

The only way to escape the vicious cycle [of intercultural power-play in the collaborative development process] is to accept another person's world-view as being as valid as one's own, and – on the basis of that acceptance – to enter into a kind of dialogue from which power is excluded as the decisive catalyst." (p. 85)

Excluding power as the decisive catalyst and allowing equitable distribution to those with different knowledge systems has proven difficult in practice. It is also difficult to achieve in the research process because the researcher asks the questions, analyzes, and interprets the data, and determines who has access to the results of the research (and because researcher and researched are operating in larger power structures that often obscure even very good intentions). Community Psychology has a long-held interest, however, in equitable distribution of power (Rappaport, 1977). It is clear that being more attentive to the power relations in various contexts will be key to praxis that promotes this espoused value. In this respect, Prilleltensky's postulates regarding power are valuable. They are particularly so because they do not attempt to reduce the degree to which the exercise of power can vary over time and place.

Community Development and Equitable Distribution of Power

In research and practice, Community Psychology should promote more equitable distributions of power for liberatory purposes, and for the promotion of wellness. More equitable distribution of power in groups and societies leads to freedom. Amartya Sen (1999) defines *development* as the freedom to choose among alternatives that an individual has reason to value. Development policies and programs are planned and implemented by governments and nongovernmental organizations all over the globe. They often fail because they are centrally and uniformly dictated with little meaningful control by the local populations most affected (Friedmann, 1992). Thus, without democratic control, development is unsustainable. A sustainable community development would, by this definition, tend to liberate members of a community. Oppression, in its many forms, manifests itself as a lack of this very freedom. Sen points out that democracy is necessary in the quest for development, when it is defined by freedom: "Developing and strengthening a democratic system is an essential component of the process of development" (p. 157).

Democracy does help to equitably distribute decision-making power and political freedom; however, it certainly does not imply consensus. In fact, more properly functioning democracies are characterized by more visible and contentious debate (Deutsche, 1996). The ability of one group to act in its self-interest within a democratic system often comes at the expense of the interests of another group. Norton Long's (1958) description of society as an ecology of games makes clear that individuals and groups tend to support that which serves their subjectively framed self-interest. In a pure democratic process, all individuals, groups, or communities would have the same power to express their views and try to secure majority support. A multitude of forces prevent even today's democratic systems from achieving various forms of social justice.

For a properly functioning democracy, the role of organized opposition groups is pivotal. While examining the process of community development for freedom or liberation, it is helpful to identify communities that are already achieving forms of these desired social changes and collaborate with them in an effort to produce mutual learning that could benefit communities that suffer as a result of inequitable distribution of power. One such vehicle for social change and community development is the community organizing process (Alinsky, 1971). The study of the grassroots community organizing process is addressed in community psychology literature (Speer & Hughey, 1995) with a central focus on power and empowerment. It is essential to understand that even the oppressed have the potential to oppress given

alterations in power arrangements. Prilleltensky's (this issue, pp. 116–136) postulate, “whereas people may be oppressed in one context, at a particular time and place, they may act as oppressors at another time and place” is important.

Power and the ways of changing its effects are fundamental to processes of social change and community development. They are also central to research efforts that seek to avoid forms of imperialism or neo-colonialism. Although community researchers often have less power than some research participants, they usually are in a position of power relative to the oppressed communities that are often the target of research. Those with the power to define and produce knowledge, and to exercise control over its dissemination wield a power that is not insignificant. For this reason, some community researchers have used participatory methods to decrease power imbalances in research processes. The results of this process show promise for Community Psychology, especially with a stated focus on psychopolitical and ecological validity.

Action Research

Action research seeks to promote social change and emancipation (Boog, 2003). It often begins with establishing a value-based partnership with a group or community. Drawing on the work of Shrage (1997), Nelson, Prilleltensky, and MacGillivray (2001) suggest that the central question for researchers partnering with oppressed groups should be, “How can we help groups which are oppressed to become agents of social change to advance their agenda?” (p. 651). Of course, “partnering” with a group might not be seen as part of the scientific process by most positivist researchers. In fact, Fals-Borda (1991), one of the researchers instrumental in the formation of the participatory action research (P.A.R.) paradigm, intended for the convergence of knowledge produced by P.A.R. to “challenge the present positivist monopoly, the prophylactic and arrogant approach of academe, [and] the ethnocentrism of Western science” (p. 151). participatory action research aims to take only the most useful, accessible, and persuasive tools from both positivist science and critical postmodernism. As with the pedagogy of liberation (Freire, 1970), however, the science of liberation must be critically adapted from the context of Latin America in the latter half of the 20th century and applied locally only with a great deal of cultural sensitivity, political awareness and consciousness raising, and attention to community-building needs (Dokecki, Newbrough, & O’Gorman, 2001).

The focus on the agenda of a group or community and not of the researcher would be seen as strange in most disciplines. We suggest that it is still not the norm in community psychology studies, and that one of our first steps toward psychopolitically and ecologically valid research for social change involves changing this aspect of the field.

Minkler and Wallerstein (2003) and Rahman (1991) point out that action-oriented approaches to research tend to have the effect of democratizing the research process itself. In an explanation of a recent action research project, Green and Mercer (2001, pp. 1926–1927) note that “[the] research subjects became more than research objects. They gave more than informed consent; they gave their knowledge and experience to the formulation of research questions.” This flow of information from participants to researchers should be reciprocated by the action researcher feeding information back to the participants as it becomes available, creating a unique epistemological cycle that is ideally beneficial to all involved.

This type of action-oriented framework allows a much greater input by the research participants in the belief that the results will therefore be more meaningful to the community. This takes away some of the researchers' freedom to craft the study in a way that addresses their own research interests or agendas. It also steers researchers away from playing a pure "expert" role because the project involves mutual learning between the community and the researcher (Saegert, 1993).

The field of Community Psychology has established itself by expanding its focus from that of traditional individualistic psychology. It now appears to be in an excellent position to work with policy makers, activists, community groups, and professionals and researchers from other disciplines to promote freedom from oppression. Yet it has, for the most part, tended to stay very similar in nature to the field from whence it came—providing ameliorative solutions to problems that are perceived to be located primarily within the individual. Prilleltensky (this issue, pp. 116–136) defines "the main mission of community psychology: to enhance wellness for all and to eliminate oppression for those who suffer from it and its deleterious mental health effects." This broad vision statement harkens to the community and societal change values that have driven and sustained community psychology from the beginning. Action research is more consistent with those values than most traditional, positivist research orientations, including those commonly used by most community psychologists.

A caveat regarding action-oriented research is that it is no panacea. Despite the conceptual improvement over top-down approaches to research and practice, a participatory approach is no guarantee that a reinforcement of existing power relations will not take place. Bergeron's (2004) discourse analysis of economic development literature demonstrates how masculinist, Eurocentric, rational narratives persist despite innovation in technique and approach. In fact, a series of interrelated challenges exists in participatory practice (Alvarez & Gutiérrez, 2001; Christens & Cooper, 2005). Consideration of these issues is essential for successful and valid action research projects.

Transdisciplinary Collaborations and Multilevel Analyses

With these approaches that are more community driven, it is likely that many of the central concepts and methods in our field will not be relevant to certain communities. It is also likely that a community may be most concerned about phenomena that fall outside the expertise of a particular researcher. Indeed, the framework presented in Figure 1 suggests that almost any individual, organizational, or community problem contains complex and interrelated sociocultural, political, economic, and environmental causes and effects. It is for this reason that transdisciplinary collaborations are strongly advocated. Even in these collaborations, it should be noted that the current specialization in academia presents itself as more rigid than it should. The advice of Mills (2000) to "specialize your work variously, according to topic, and above all according to the significant problem" (p. 225) is relevant here.

As an example of transdisciplinary collaboration, this portion of this article is being written in Ecuador where the first author is involved in an action research project in collaboration with indigenous organizations and an interdisciplinary team of researchers (Christens, Hulan, Ivy, & Partridge, 2004). The research group is led by two anthropologists (one from South America and one from North America) and includes an economist, as well as students of organizational leadership, community development, public health, and Latin American studies. This team from Vanderbilt

University is collaborating with social science professors and students from FLACSO University in Quito, Ecuador, who have research agendas in the United States. The variety of fields of expertise provides a rich knowledge base that each individual researcher can draw on while communicating with the communities and organizations with which they are also collaborating.

Community Psychology is not alone in its recognition of the benefits of searching for solutions to problems with the collaboration of other disciplines. Revisiting this article's focus on the physical environment, the urban designer Peter Calthorpe (1993) writes that

Community design must be multi-disciplinary... combining problems often leads to simple solutions while segregating problems typically leads to frustration... every project has a political, economic, ecological, social, technical, aesthetic, and ideological dimension. When designing communities, these concerns should be inseparable. But architects, planners, landscape architects, traffic engineers, civil engineers, biologists, developers, environmentalists, bankers, and even neighborhood groups too often seek to optimize only a segment, an issue, or an individual system." (p. 10)

Transdisciplinary collaboration increases our potential to benefit the communities that are benefiting us by allowing us to collaborate with them and produce research. Multilevel analysis is another important tool that can increase our relevance as researchers. Although action research often emphasizes qualitative research that is more accessible to most participants, it would be a mistake to ignore the power of multilevel quantitative research. One promising development in recent years is multilevel analysis (e.g., hierarchical linear modeling), which greatly enhances the community researcher's ability to more validly analyze data at various levels simultaneously (Perkins & Taylor, 1996).

Spatial analysis using geographic information systems (GIS) is another powerful method that community organizations, government agencies at all levels, and researchers can use to identify patterns and evaluate program and policy impacts across all four domains presented in Figure 1 (e.g., using geocoded Census, economic, crime, health, educational, housing, transportation, and urban planning data). Both multilevel and spatial analyses are inherently ecological in examining phenomena contextually. Analyses utilizing GIS, in particular, have the potential to yield politically persuasive evidence on nearly any topic of concern. Intuitively appealing and accessible maps are of great use for action research and other social change processes (Christens & Speer, 2004; Elwood & Leitner, 2003), and can be useful for generating and testing hypotheses. As the very name of the field implies, Community Psychology is inherently multilevel and geographic setting- or context-specific. Yet both multilevel and, especially, GIS analyses are surprisingly rare in the community psychology literature.

Finding or confirming participants' and researchers' beliefs about connections between domains and levels of analysis (Figure 1) has the potential to help everyone involved understand problems in more complex ways. It is important that once this information is generated, it is systematically crafted into formats and displays that will be understood by all who have contributed to its generation or stand to benefit from it.

The work of Edward Tufte (1990, 1997) on information design and display is particularly helpful to consider when attempting to convey information effectively to an audience. These considerations are helpful in avoiding forms of “egoism” (Dokecki, 1996) that are too frequently demonstrated through indifference to the culture, values, and individual differences within a community. These actions are often motivated by the professional’s desire to demonstrate expertise or to remain focused on a preconceived research agenda. The effects are sometimes disastrous, and usually jeopardize opportunities for sustainable development toward wellness and more equitable distributions of power.

Human development and community development are interdependent (Dokecki et al., 2001). Individual, psychological development is heavily influenced by social and cultural context (Burman, 1997) and may be stunted by a lack of community development, in terms of basic health, education, safety, and economic opportunity. Unlike applied anthropologists and sociologists of education, however, developmental psychologists have generally paid little attention to community development. In contrast, there has been a long-standing emphasis within Community Psychology on community development (Levine et al., 2005; Mann, 1978; Perkins, Hughey & Speer, 2002), but not enough work that demonstrates connections between individual human development processes and community development processes. C. Wright Mills (2000) stressed that social science tends to miss the linkages between private troubles and public issues (Christens, Hanlin, & Speer, 2007). He encouraged social scientists to hone their skills to be able to identify these connections. We are suggesting that an action-oriented, transdisciplinary focus on processes across various levels and domains (as shown in Figure 1) will move community research closer to that goal. For this reason, it is important to reiterate that social change and human development should go hand in hand in community research. By continuing and enhancing this type of work, Community Psychology stands to meaningfully contribute to filling a void that has been widely acknowledged across the social sciences.

CONCLUSIONS AND FUTURE DIRECTIONS

Research that focuses on the underlying power dynamics that affect wellness, liberation, and oppression is overdue; and Community Psychology is well positioned to take on this type of research. The role of action both in and outside of our research has been the topic of much discussion (e.g., Olson et al., 2003). Although we can focus on social change and generate knowledge that has the potential to affect it, we are not typically the ones making the actual social changes (at least in our role as researchers).

For this reason, it is essential for a community researcher interested in change and development to partner, to collaborate, to participate, and to allow genuine participation in the research process. Instead of focusing on rigidly defined interests, we recommend a focus on the process of partnering with organizations working for liberation and/or oppressed groups or communities, and collaboratively determining which lines of research could benefit groups and/or the collective most in a variety of quests for liberation and wellness.

Research of this type is often time consuming and tends not to yield empirical publications as quickly as research that is restricted to one discipline or level of analysis. It can also be difficult to explain action research projects to funding agencies, institutional review boards, and even the communities and organizations with which

we hope to partner. Improved methods of communicating information are in order. As Prilleltensky (this issue, pp. 116–136) points out, most research in community psychology is currently ameliorative at best. It is essential for the vitality of the field to always set our sights on making research more transformative.

In this article, we have endorsed the proposed focus on psychopolitical validity. We have also recommended an even more comprehensive theoretical construct that merges the ecological and psychopolitical (Figure 1). The complexity involved in such a comprehensive model and the study of such empirically elusive concepts as power led to the exploration of some challenges inherent in conducting such research. Next, we identified transdisciplinary collaboration, multilevel and spatial analyses, and participatory action research paradigms that are sensitive to, and respectful of, different knowledge systems as promising tools to help us deal with these complexities; yet it is recognized that although these methods can be of assistance in dealing with some challenges, they create still more.

It is our hope that this issue will help the field of Community Psychology become more dynamic, relevant, and serious about addressing issues of power in theory, research, and practice. The challenges we identify here should not be mistaken for deterrents. Indeed, they are the impetus for the proposed development of a transdisciplinary, international, and collaborative network of community action-research centers focusing on the topics raised in this special issue (Perkins et al., 2003). The opportunity to develop new and effective ways of doing psychopolitically and ecologically valid research is a task that should appeal to the best minds—and those most interested in development, social change, liberation, and transformative work in communities.

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