

He is a prolific author, having written or edited many articles, chapters, and books on culture-related topics.

**SEE ALSO:** Cross-Cultural Psychology; Cultural Psychology; Indigenous Psychology; Kohlberg, Lawrence; Participatory/Action Research

## References

- Eckensberger, L. H. (1979). A metamethodological evaluation of psychological theories from a cross-cultural perspective. In L. H. Eckensberger, W. J. Lonner, & Y. H. Poortinga (Eds.), *Cross-cultural contributions to psychology* (pp. 255–275). Amsterdam, Netherlands: Swets and Zietlinger.
- Eckensberger, L. H. (1989). A bridge between theory and practice, between general laws and contexts? *Psychology and Developing Societies*, 1, 21–35.
- Eckensberger, L. H. (1990). On the necessity of the culture concept in psychology: A view from cross-cultural psychology. In F. J. R. van de Vijver & G. J. M. Hutschemackers (Eds.), *The investigation of culture: Current issues in cultural psychology* (pp. 153–183). Tilburg, Netherlands: Tilburg-University Press.
- Eckensberger, L. H. (1995). Activity or action: Two different roads towards an integration of culture into psychology? *Psychology & Culture*, 1, 67–80.
- Eckensberger, L. H. (2003). Wanted: A contextualized psychology. A plea for cultural psychology based on action psychology. In T. S. Saraswathi (Ed.), *Cross-cultural perspectives in human development. Theory, research, and application* (pp. 70–101). Delhi, India: Sage.
- Eckensberger, L. H. (2006a). Contextualizing moral judgment: Challenges of interrelating the normative (ought judgments) and the descriptive (knowledge of facts), the cognitive and the affective. In L. Smith & J. Vonèche (Eds.), *Norms in human development* (pp. 141–168). Cambridge, UK: Cambridge University Press.
- Eckensberger, L. H. (2006b). The mutual relevance of indigenous psychology and morality. In U. Kim, K.-S. Yang, & K.-K. Hwang (Eds.), *Indigenous and cultural psychology: Understanding people in context* (pp. 225–245). New York, NY: Springer.
- Eckensberger, L. H. (2011). Cross-cultural differences as meaning systems. In S. M. Breugelmans, A. Chasiotis, & F. J. R. van de Vijver (Eds.), *Fundamental Questions in Cross-Cultural Psychology* (pp. 407–441). Cambridge, UK: Cambridge University Press.
- Eckensberger, L. H. (2012). Culture inclusive action theory: Action theory in dialectics and dialectics in action theory. In J. Valsiner (Ed.), *Oxford Handbook of Culture and Psychology* (pp. 357–402). Oxford, UK: Oxford University Press.

## Further Reading

- Eckensberger, L. H. (2004). Morality from a cultural psychology perspective. In G. Zheng, K. Leung, & J. G. Adair (Eds.), *Perspectives and progress in cross-cultural psychology* (pp. 25–34). Beijing, China: China Light Industry Press.
- Keller, H., Poortinga, Y. H., & Schölmerich, A. (Eds.). (2002). *Between culture and biology: Perspectives on ontogenetic development*. Cambridge, UK: Cambridge University Press.
- Poortinga, Y. H. (2008). A relativist in pursuit of the truth: Eckensberger's contribution to the study of psychology and culture. In I. Plath, I. Graudenz, & H. Breit (Eds.), *Kultur-Handlung-Demokratie: Dreiklang des Humanen* (pp. 25–42). Wiesbaden, Germany: VS Verlag.

## Ecological Systems

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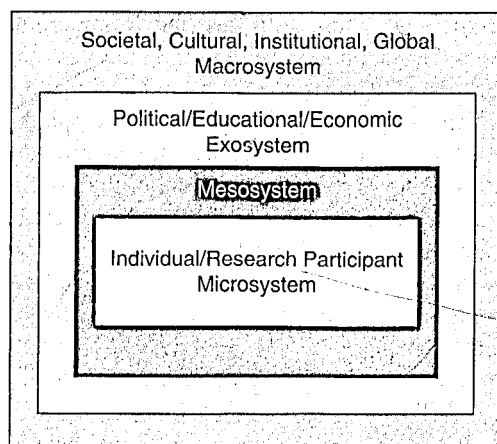
An ecological systems approach is an ideal theoretical framework to underpin the development and conceptualization of cross-cultural psychology research because it allows researchers to consider the dynamic relations between people and the contexts in which they are embedded (Rao & Chen, 2009; Van Voorhees et al., 2008). Cultural factors – including but not limited to race, ethnicity, gender, sexual orientation, religion, socio-economic status, country of origin, geography, and level of ability – are implicated at every level of human ecology. Ecological systems theory (EST) highlights and points to the unique context and environments in which the individual interacts and which shape development over time. According to Bronfenbrenner (1979, 1986, 2005) and other scholars (Conyne & Cook, 2004; Rao & Chen, 2009; Stokols, 2000; Van Voorhees

et al., 2008), the researcher investigating cross-cultural issues and constructs should account for the multiple contexts (or systems) in which individuals and populations exist.

### Ecological Systems Theory

Bronfenbrenner's (1979, 1986, 2005) seminal ecological systems theory (EST) described four nested systems in which individual phenomena are embedded: micro-, meso-, exo-, and macrosystems (see Figure 1). These systems put forward by Bronfenbrenner are often differentiated by their distance from the individual and the extent to which they may exert direct influence on the individual (i.e., proximal [close and direct influence] to distal [distant and indirect influence]). Microsystems can be defined as "contexts or systems in which a person or persons have primary face-to-face contact with important and impactful individuals" (Conyne & Cook, 2004, p. 16). Examples of people who may have continuous proximity and effect on an individual include family members, friends, and community members. All of these individuals in the microsystem could have an impact on the person's health and daily functioning. In turn, the meso-system represents the relations and connections between microsystems. An example of the influence of the mesosystem is the interaction between the family microsystem and the work microsystem. Much empirical evidence has shown that these two systems interact with and affect one another (Brown, 2002; Grzywacz & Fuqua, 2000; Van Voorhees et al., 2008). For example, discord and a lack of support from family members can have a deleterious effect on one's work and relationships outside the family system. Then the exosystem surrounds the micro- and mesosystems.

Exosystems are those systems in which a person may not directly participate, but in which important decisions are made and actions are taken that significantly affect the person (Bronfenbrenner, 1979; Conyne & Cook, 2004). The economic, political, education, government, or religious systems at a



**Figure 1** Four Nested Levels of Ecological Systems Proposed by Bronfenbrenner

local, state, or national level are examples of exosystems. Finally, the macrosystem is the broadest and highest-level system, consisting of overarching societal, social, cultural, political, institutional, and procedural beliefs, values, and components. As Conyne and Cook noted, the macrosystem is the most pervasive system, containing blueprints for defining and organizing social and institutional life in a society – including general values, political and social policy, and ideology. The U.S. healthcare system is one example at the macro level that may have an impact on and interact with an individual and the other systems.

### EST in Cross-Cultural Psychology Research

Cross-cultural psychology researchers can use EST as a foundation by considering the micro, meso-, exo-, and macrosystems of the populations and communities participating in research. Brown (2002) and other scholars (Van Voorhees et al., 2008) have concurred that EST is a useful theoretical framework for understanding human development and psychological health throughout the lifespan. In particular, EST can illuminate the broader systems in which individuals, families, and communities are embedded. That is, individuals, families, and communities are not independent

entities; rather they are influenced by numerous contextual and interrelated systems and factors, including the researchers who conduct the study and the context in which the research takes place.

Additionally, an EST approach may provide a more accurate portrayal of culture-specific factors that both impede and promote health outcomes. Psychological factors relevant to all of these nested systems and contexts are complex (person and environment), linked, interdependent, and interactive (Barker, 1968; Bronfenbrenner, 1979, 1986; Van Vorhees et al., 2008). Thus, a research model that excludes the ecological systems (meso-, exo-, and macro-systems) in which research participants are embedded could miss important systemic and cultural factors (i.e., points of investigation and intervention) that may be related to the health constructs, processes, and outcomes being studied (Grzywacz & Fuqua, 2000). To be meaningful, innovative, and culturally relevant, researchers need not explore all of the aforementioned systems that may influence the constructs under investigation. Grzywacz and Fuqua (2000) identified these ecological nested systems as "leverage points" for promoting appropriate human development, health, and wellbeing of children and adolescents, families, and populations.

The utility of using EST to inform research is clear and is evidenced across many disciplines. For example, ecological systems theory has been used to undergird medical research, community-based participatory research, developmental, environmental, and organizational psychology studies, educational studies, family systems and gender studies, and cross-cultural psychology research (Bronfenbrenner, 1986; Grzywacz & Fuqua, 2000; Hooper & Brittner Brandt, 2012; Kaufman et al., 2006; Van Vorhees et al., 2008).

Research conducted with culturally, racially, and ethnically diverse populations should be grounded in culturally specific models (Raffaelli, Carlo, Carranza, & Gonzalez-Kruger, 2005). With regard to the field of psychology, for example, Miller (1999) indicated that culture ought to be seen as implicated in basic

psychological processes and must be an integral part of psychological theory. EST can help to identify unique cultural factors in the different ecological systems that can be critical to include in research. In indigenous cultures, for example, culture-based schools were developed to combat the deleterious social, cultural, and educational effects of the federal government's policies of assimilation and boarding schools (Hermes, 2000). A culture-based curriculum is grounded in the values, norms, knowledge, beliefs, practices, experiences, and language that are the foundation of an indigenous culture. Thus, as with many cultures, schools in indigenous cultures represent an extremely important microsystem (and indeed meso- and exo-systems) with which children interact. However, in culture-based schools, cultural identity is viewed as essential and key to student development and academic success, whereas in mainstream public schools, cultural identity activities are often considered supplemental. There are often tensions with regard to the different viewpoints of culture-based course work as being academic or cultural (Hermes, 2000). Given these different perspectives, researchers grounded in culturally specific models and who conduct research from an ecological perspective may be more likely to include cultural identity development as a central aspect of the school's effectiveness and of the development and academic success of students than are researchers who are not grounded in culturally specific models or an ecological perspective (American Evaluation Association, 2011).

### **Illustration of Cross-Cultural Psychology Research using EST: Young Children's Health and Development**

A majority of racial minority children and youth report experiencing discrimination (Gibbons et al., 2007; Pachter, Bernstein, Szalacha, & Garcia Coll, 2010). A small but rapidly growing body of empirical research shows that experiences of discrimination negatively affect children. Research has shown

that experiences of discrimination in early adolescence are related to early onset and continued mental health and substance use problems in later adolescence and factors such as anger responses and parenting behaviors mediate this relationship (Gibbons et al., 2007).

EST could be used to guide research examining the development of racial minority children and youth. Existing models of child development typically do not incorporate factors highly salient to racial and ethnic minority children such as experiences of racism (discrimination, prejudice) and social stratification (segregation; García Coll et al., 1996). An investigation into these constructs can be informed by EST, which suggests that child development results from an interaction between the child and his or her environment or context. From an ecological perspective, these factors are critically important in the lives of minority children and youth because they can directly and indirectly influence their health and development. In fact, increasingly, discrimination is conceptualized as a chronic and accumulative stressor that, in turn, becomes a risk factor for poor health and health disparities in racial minority children (Sanders-Phillips, Settles-Reaves, Walker, & Brownlow, 2009).

At a microsystem level of analysis, discrimination experienced at school (e.g., being treated badly or unfairly by a teacher or being accused of something one did not do at school because of one's skin color, language or accent, or because of one's culture or country of origin) could directly and negatively influence children psychologically (e.g., decreased sense of self-efficacy, depression) and/or biologically (e.g., increased cortisol levels, increased blood pressure). Furthermore, children already at high risk for poor outcomes (e.g., presence of biological risk markers for depression or hypertension; poor parenting) may experience poorer outcomes as a result of discrimination, compared to children at low risk. From an exosystem level of analysis, discrimination can indirectly affect children because discriminatory practices and policies in the educational system affect communities', school districts',

and families' access to resources, services, and opportunities, which in turn affects children's development and health. At a macrosystem level analysis, negative images of racial minorities portrayed in the media could influence feelings of internalized racism and negative self-appraisals (Sanders-Phillips, Settles-Reaves, Walker, & Brownlow, 2009). Thus, one salient factor for racial minority populations can affect children, their families, and their communities at multiple levels.

Researchers could proceed by testing additional pathways and mechanisms to examine the effect of racism, in the form of racial or ethnic discrimination, on children's mental and physical health, academic achievement, and other high risk behaviors. This brief illustration demonstrates how ecological systems research could provide detailed insights into how factors unique to certain cultural groups directly and indirectly impact children's health and development and how changes in important intervening variables (child psychological responses, parenting behaviors) are critical factors in mitigating poor outcomes. These insights in turn may be applied to the development of interventions to address discrimination at multiple levels (micro- to macrosystems) as well as the response of children, their families, and communities to discrimination.

EST is ideal for research that seeks to disentangle psychological and cross-cultural issues that individuals, families, and communities face. Bronfenbrenner's (1979, 1986, 2005) ecological systems theory can guide researchers in considering meso-, exo-, and macrosystems of a patient above and beyond the individual and context being directly studied (e.g., child and family system). The current illustration demonstrates the benefits of using EST to inform cultural research. EST helps researchers to identify factors, including cultural factors, that influence, interact, and shape development at multiple levels – from the micro to the macro.

**SEE ALSO:** Environmental Psychology

## References

- American Evaluation Association. (2011). *American Evaluation Association public statement on cultural competence in evaluation*. Fairhaven, MA: Author.
- Barker, R. (1968). *Ecological psychology*. Stanford, CA: Stanford University Press.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology*, 22, 723-742.
- Bronfenbrenner, U. (2005). *The bioecological theory of human development*. Thousand Oaks, CA: Sage.
- Brown, R. T. (2002). Sociology of pediatric psychology presidential address: Toward a social ecology of pediatric psychology. *Journal of Pediatric Psychology*, 27, 191-201.
- Conyne, R. K., & Cook, E. P. (2004). *Ecological counseling: An innovative approach to conceptualizing person-environment interaction*. Alexandria, VA: American Counseling Association.
- García Coll, C., Crnic, K., Lamberty, G., Wasik, B. H., Jenkins, R., Garcia, H. V., & McAdoo, H. P. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development*, 67, 1891-1914.
- Gibbons, F. X., Yeh, H.-C., Gerrard, M., Cleveland, M. J., Cutrona, C., Simons, R. L., & Brody, G. (2007). Early experience with racial discrimination and conduct disorder as predictors of subsequent drug use: A critical period hypothesis. *Drug and Alcohol Dependence*, 88(Supplement 1), S27-S37. doi: 10.1016/j.drugalcdep.2006.12.015
- Grzywacz, J., & Fuqua, J. (2000). The social ecology of health: Leverage points and linkages. *Behavioral Medicine*, 26(3), 101-115.
- Hermes, M. (2000). The scientific method, Nintendo, and Eagle feathers: Rethinking the meaning of "culture-based" curriculum at an Ojibwe tribal school. *Qualitative Studies in Education*, 13, 387-400.
- Hooper, L. M., & Brittnel Brandt, H. (2012). Conducting mental health research in K-12 schools: A systems approach to university-school partnerships. *Journal of Counseling and Development*, 90, 81-90.
- Kaufman, J. S., Crusto, C. A., Quan, M., Ross, E., Friedman, S. R., & O'Rielly, K. (2006). Utilizing program evaluation as a strategy to promote community change: Evaluation of a comprehensive, community-based, family violence initiative. *American Journal of Community Psychology*, 38, 191-200.
- Miller, J. G. (1999). Cultural psychology: Implications for basic psychological theory. *Psychological Science*, 10(2), 85-91.
- Pachter, L. M., Bernstein, B. A., Szalacha, L. A. & Garcia Coll, C. (2010). Perceived racism and discrimination in children and youths: An exploratory study. *Health & Social Work*, 55(1), 61-69.
- Raffaelli, M., Carlo, G., Carranza, M. A., & Gonzalez-Kruger, G. E. (2005). Understanding Latino children and adolescents in the mainstream: Placing culture at the center of developmental models. *New Directions for Child and Adolescent Development*, 109, 23-32.
- Rao, U., & Chen, L. (2009). Characteristics, correlates, and outcomes of childhood adolescent depressive disorders. *Dialogues in Clinical Neuroscience*, 11, 45-62.
- Sanders-Phillips, K., Settles-Reaves, B., Walker, D., & Brownlow, J. (2009). Social inequality and racial discrimination: Risk factors for health disparities in children of color. *Pediatrics*, 124, S176-S186.
- Stokols, D. (2000). Social ecology and behavioral medicine: Implications for training, practice, and policy. *Behavioral Medicine*, 26(3), 129-138.
- Van Voorhees, B. W., Vanderplough-Bookth, K., Fogel, J., Gladstone, T., Bell, C., Stuart, S., ... Rinecke, M. A. (2008). Integrative internet-based depression prevention for adolescents: A randomized clinical trial in primary care for vulnerability and protective factors. *Journal of Canadian Academy of Child Adolescent Psychiatry*, 17, 184-196.

## Further Reading

- Rose, T., Joe, S., & Lindsey, M. (2011). Perceived stigma and depression among black adolescents in outpatient treatment. *Children and Youth Services Review*, 33, 161-166.
- Tudge, J. R. H., Mokrova, I., Hatfield, B. E., & Karnik, R. B. (2009). Uses and misuses of Bronfenbrenner's bioecological theory of human development. *Journal of Family Theory & Review*, 1, 198-210.