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# The Engagement Model of Person-Environment Interaction

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*This article focuses on growth-promoting aspects in the environment, and the authors propose a strength-based, dynamic model of person-environment interaction. The authors begin by briefly discussing the typical recognition of contextual variables in models that rely on the concept of person-environment fit. This is followed by a review of recent approaches to incorporating positive environmental factors in conceptualizations of human functioning. These approaches lead to an alternative model of person-environment interaction in which the engagement construct (i.e., the quality of a person-environment relationship determined by the extent to which negotiation, participation, and evaluation processes occur during the interaction) replaces the static notion of fit. Finally, the authors outline recommendations for overcoming environmental neglect in research, practice, and training.*

In the early 1900s, the interaction between a person and the environment was recognized as a critical factor in obtaining a complete understanding of the individual (Lewin, 1935). Around the same time, behaviorists examined environmental factors relating to individual behavior, arguing that behavior could be explained, predicted, and modified if the mechanisms underlying environmental influences were known (Conyne & Clack, 1981). In their efforts, behaviorists discovered principles by which the environment can affect behavior (e.g., punishment and reinforcement). These principles have proven so powerful and robust that they have been adopted implicitly and explicitly in current conceptualizations of person-environment relationships (Walsh, Craik, & Price, 2000a). Further scholarly inquiry into the interaction between humans and their sociocultural environments has taken place in psychology's various subdisciplines (e.g., environmental, developmental, human factors, industrial-organizational, and social) and in other social sciences (e.g., anthropology, social work, and sociology). Yet despite the discoveries and growth in person-environment psychology and counseling psychology's historical "emphasis on person-environment interactions, rather than an exclusive focus on either the person or the environment" (Gelso & Fretz, 2001, p. 8), counseling psychology researchers and practitioners continue to focus more on the individual than on the person-environment interaction.

One reason for this is the difficulty in accounting for contextual variables when intervening or exploring phenomena at the individual level. Indeed, models of person-environment interaction must not only contend with the complexity of two distinct factors (the person and the environment) but also explain the interaction between the factors. Various theoretical approaches have provided conceptual frameworks

for person-environment interactions (for descriptions of the frameworks, see Walsh, Craik, & Price, 2000b). However, within the counseling psychology field, Holland's (1996, 1997) approach helped to balance its explanation of person-environment involvement and its utility in applied settings.

Holland's (1997) theory focuses on how people fit with their work environments (for a more detailed discussion of Holland's work, see Robitschek & Woodson, 2006 [this issue]). Despite an enduring history of models grounded in the notion of *fit*, Schneider, Smith, and Goldstein (2000) note a dearth of research supporting the link between fit and outcomes. One problem with fit that may account for the lack of empirical support is that it does not recognize the dynamic interface between the person and the environment. In this way, fit represents an inherent limitation in the ability of Holland's model to accurately reflect processes involved in interactions. Furthermore, current trends in psychology indicate a need for models of person-environment interaction to account for personal strengths and environmental resources (Rasmussen et al., 2003; Wright & Lopez, 2002).

In this article, we examine the environmental influences and the subtleties of the person-environment interaction that may affect the development, definition, manifestation, and enhancement of strengths. Specifically, we discuss select conceptualizations of person-environment relationships that lead to an alternative model to replace the notion of fit. After briefly reviewing Holland's (1997) work, we present Moos's (1991) theory, which encompasses contextual resources and expands on the notion of fit by incorporating dynamic features of the environment. A four-front approach (Wright & Lopez, 2002) is then considered, calling for a balanced focus on a person's strengths and weaknesses, as well as environmental resources and stressors. These conceptualizations of person-environment relationships do not stand alone, and many other theories and models could have served as examples (e.g., Dawis & Lofquist, 1984; Folkman, Lazarus, Gruen, & DeLongis, 1986; Goldfried & Davison, 1976; Lewin, 1935; see also Walsh et al., 2000b). Yet the works of Holland, Moos, as well as Wright and Lopez highlight elements that direct us to propose a strength-based, dynamic model of person-environment interaction. We strive to combine crucial features of these models while avoiding certain deficiencies that they reveal. At our

model's heart is a tripartite construct of *engagement*—consisting of negotiation, participation, and evaluation—that acts to maximize the potential outcome of a given person-environment relationship. Finally, we provide recommendations to assist counseling psychologists in overcoming environmental neglect.

## **Holland's Theory: The Traditional View of Person-Environment Involvement**

Psychologists from different substantive areas have made significant contributions to the person-environment model of human functioning, and counseling psychology is no exception. Building on Parsons's (1909) work, Holland (1997) based his person-environment theory on the belief that behavior is a function of congruence between a person and the psychological environment. Holland purported that people enter an environment because they have interests and personalities similar to others in the setting. Because they find such environments reinforcing and satisfying, they not only will stay there but will be more productive as well. If congruence between person and environment does not exist, the person is more likely to change settings. (Again, see Robitschek & Woodson [2006] for a more thorough discussion of Holland's work.) Essentially, Holland's work has fostered an understanding of how different aspects of an individual's personality suit different work environments. Indeed, the concept of congruence, or fit, between a person and the environment is a significant contribution.

## **Moos's Model: Acknowledging Dynamic Features and Person-Environmental Resources**

Moos (1991) developed an integrated conceptual framework and related assessment procedures for understanding the dynamic features of environments. Figure 1 shows his five-panel, socioecological model of human adaptation. From this perspective, the environmental system (Panel I) is made up of continuous life stressors and social resources in various life areas, including school, family, and work. The personal system (Panel II) is composed of a person's demographic characteristics and personal resources such as self-esteem, cognitive ability, problem-solving skills, and needs and value orientations. Life crises and transitions (Panel III) and the environmental and personal

factors (Panels I and II) that come before them can affect cognitive appraisal and coping responses (Panel IV) and their effectiveness (Panel V). The model is bidirectional, with potential reciprocal feedback at each stage (Cronkite, Moos, & Finney, 1984; Moos, 1991).

Moos's (1991) model consists of three related dimensions of the environment: the relationship dimension, the personal growth or goal-orientation dimension, and the system maintenance and change dimension. All three categories of evaluation are strength based, as they focus on finding what works well for a person within a given setting. Specifically, the relationship dimension measures the extent to which individuals within a given setting are involved with and supportive of one another as well as how open and comfortable they feel about expressing themselves in front of each other. The personal growth or goal-orientation dimension is indicative of the underlying goals toward which an environment is oriented. Personal development and self-enhancement are based on the goals of the setting. The system maintenance and change dimension covers the extent to which a setting is structured and orderly, with clear expectations, and the openness to change that characterizes a setting (Cronkite et al., 1984; Moos, 1991).

Positive social and performance outcomes often result when some emphasis is placed on each of the three major dimensions of the environment (relationship, growth, and maintenance), without too much focus on any one area (Moos, 1991); "Findings affirm the value of examining the interplay of relationship, personal growth, and system maintenance factors in identifying the consequences of varying social climates" (p. 36). For example, within schools, Moos (1991) reported an increase in student morale when student involvement and supportive relationships with teachers and peers were present (relationship domain) within task-oriented classes with specific academic goals (personal growth domain) in well-organized, clearly structured, innovative classrooms (system maintenance domain). Within work settings, individual morale and performance were increased when employees were highly involved in their work, when coworkers experienced cohesion, and when supervisors were supportive (relationship domain). Benefits were also associated with independence-oriented work settings that encouraged employees to participate in decision making on challenging work tasks (personal growth domain) in an environment that was well organized, physically

comfortable, and clear on job requirements and criteria for evaluating adequate performance (system maintenance domain). Overall, fostering optimal human functioning apparently requires considering the potential variations in the strength of relationship, personal growth, and system maintenance factors in school, work, and family settings. In addition, Moos recommended an array of personal and social outcomes criteria.

## **The Four-Front Approach: Attending to Environmental Resources**

Wright and Lopez (2002) posited, "At best, the environment remains as a vague background against which the person is featured. . . [It] overwhelmingly remains hidden in our thinking about and evaluation of a person" (p. 32). In response to this perceived conceptualization and assessment deficiency, Wright and Lopez have proposed a four-front approach to highlight the environment in individual appraisal. They have asserted that practitioners must be committed to examining a person's (a) strengths and (b) weaknesses, as well as the (c) resources and (d) stressors in his or her environment. Emphasizing these four domains counterbalances the tendency to focus on human pathology. It also helps to foster the detection of positive constructs within the person and his or her environment that could be nurtured to expand his or her capabilities. To bolster the four-front model of assessment, Wright and Lopez have suggested that inventory developers devote equal time and space in their instruments to each of the fronts and that researchers and practitioners balance their assessments by examining personal attributes and environmental characteristics. Similarly, Wright and Lopez have further urged practitioners, students, and researchers to "remain on guard lest positives in the person and situation remain overlooked because of the intrusion of the fundamental negative bias and environmental neglect" (Wright & Lopez, 2002, p. 38).

## **Toward An Engagement Model of Person-Environment Interaction**

Moos's (1991) theory exemplifies the push of person-environment conceptualizations beyond the static notion of fit as it incorporates dynamic features of the environment. However, his



model's comprehensiveness is reflected by its complexity. This could interfere with its acceptance by practitioners who likely would prefer a less involved rubric for person-environment interactions. In addition, although Moos acknowledges contextual resources, it may be difficult to firmly link his theory with the current positive psychological perspective. In contrast, the four-front approach (Wright & Lopez, 2002) is solidly couched in positive psychology and effectively highlights the need to consider personal strengths and environmental resources. However, the four-front approach provides only a loose framework for examining person-environment relationships. Thus, we propose an alternative model of person-environment interaction that (a) allows for the dynamic interplay between an individual and a given setting, (b) focuses on personal strengths and environmental resources, and (c) balances explanatory power and parsimonious utility (see Figure 2). To create a solid foundation for our person-environment model of interaction, the environment must be conceptualized with both physical and social variables. Also, much as Barker (1968) proposed, the behavioral setting and the people within it make unique contributions to the process of the person-environment interaction. From this perspective, we can view environmental forces such as discrimination, as well as personal factors such as sociocultural identity, as preexisting variables that feed into the engagement process.

We propose that the engagement construct is the force mediating the person-environment unit and the potential outcomes resulting from the interaction. We define *engagement* as the quality of a person-environment relationship determined by the extent to which the negotiation, participation, and evaluation processes occur during the interaction. Therefore, engagement's three components—*negotiation*, *participation*, and *evaluation*—can be thought of as active ingredients that stimulate the release of positive outcomes in any person-environment mixture. Engagement should be viewed as existing at the intersection between the individual and the environment. That is, the dynamic interplay between a person and his or her setting precludes sole consideration of either the individual or the context in which he or she exists. The Gallup Organization has conducted research (Buckingham & Coffman, 1999; Harter, Schmidt, & Hayes, 2002) on a similar, yet somewhat more person-focused, construct. The researchers analyze the separate notion of *employee*

*engagement*, and their work lends theoretical and indirect empirical support to our model.<sup>1</sup> To provide a contextual framework for our model, we specify how its components relate to a variety of positive psychological constructs that have been the focus of empirical attention in recent years.

## *Negotiation*

Negotiation refers to an ongoing process during a person-environment interaction in which both an individual and the environment make adjustments to accommodate each other. In the current model, negotiation best reflects the traditional concept of person-environment fit. We should view this dynamic process of accommodation, however, as presenting multiple opportunities for both individual strengths and environmental resources to be tapped during an ongoing interaction. Positive psychological factors that can be conceptually linked to negotiation at both the individual and the organizational levels include flexibility, adaptive behavior, acceptance, resilience, and problem-solving appraisal (for a review of positive psychological factors such as these, see Snyder & Lopez, 2002). For example, increased flexibility or adaptive qualities in a person or his or her environment would result in a wider range of adjustments and accommodation. This, in turn, would lead to increased levels of engagement, as there would be more opportunities to match strengths to environmental resources. Similarly, a person's ability to recognize problems in the environment and to formulate solutions would increase the likelihood that adjustments could be made, thus increasing his or her engagement. It is imperative with regard to negotiation, and throughout the engagement model, that the environment be viewed as equal to the individual in its dynamic involvement in the engagement process. Even given an inherently inflexible and rule-bound contextual system such as a prison, for example, the environment must adjust to make accommodations. Prison negotiation may involve both individual and environmental responses to population growth, modified procedures, new statutory regulations, or changes in the lunch menu.

## *Participation*

Participation is the degree of positive interactions between a person and an environment in the psychological, physical, and emotional domains. Participation might be assessed by counting the

number of certain cognitions relating to the environment, evaluating the strength of specific emotions concerning a particular environment, or observing the frequency of some goal-directed behavior. Rewards, salary, or other signs of approval and gratitude may reflect participation's environmental component. While negotiation concerns fitting a person's strengths with environmental resources, participation is the resulting activation of those strengths through active involvement. In the positive psychology realm, factors such as flow, skill, and mindfulness (Snyder & Lopez, 2002) relate to participation. The notion of physical participation may involve an individual's actual behavior associated with task completion, interpersonal contact, physical exercise, interaction with environmental resources (e.g., equipment, tools, furniture, books, and computers), and response to various aspects of the physical surroundings (e.g., temperature, decor, lighting, and ergonomics). Participation improves on other conceptualizations of person-environment relationships by explicitly acknowledging emotional links to the environment rather than focusing on cognitive and behavioral components (e.g., Folkman et al., 1986). Positive psychological constructs that tap emotional participation in the work, home, and school settings include love, compassion, and connectedness (Snyder & Lopez, 2002). Additional work needs to clearly delineate the environmental factors of participation, but such variables would generally be those that enhance any of the positive psychological constructs just reviewed.

## *Evaluation*

Rather than being the endpoint of a person-environment interaction, evaluation is part of the continuous process of engagement. Evaluation involves the bidirectional appraisal of both the self and the other in the person-environment unit. In this way, evaluation consists of individuals' thoughts and feelings about themselves and their environment as a result of their interactions. Likewise, it refers to the thoughts and feelings at the organizational level about the physical and social context itself (i.e., work, home, or school environment), as well as the individual. The concept of evaluation can represent an appraisal of the degree to which a person has achieved environmental fit (i.e., negotiation) as well as the quality of participation within the interaction. Receiving feedback and having a voice in the organization or family unit also reflect the concept of

evaluation. Positive psychological constructs that could relate to aspects of evaluation include responsibility, loyalty, belonging, self-efficacy, satisfaction, subjective well-being, and optimism (Snyder & Lopez, 2002).

### *Goal Attainment*

Goal attainment refers to positive outcomes associated with person-environment interactions. This model specifies that the engagement level in the interaction directly influences goal attainment. Goal attainment can occur at either the individual level, referred to as personal achievement, or the contextual level, called environmental enhancement. Given that people and environments vary, however, one should recognize that the successful outcomes associated with interactions may be uniquely perceived and influenced by both individual and cultural variables (for a discussion of cultural perspective on well-being and the good life, see Constantine & Sue, 2006 [this issue]). Thus, individual achievement is a personal outcome that may include getting a promotion, making good grades, or completing household chores. Outcomes of environmental enhancement might be corporate involvement in the community, decreased violence in the schools, or maintenance of the family unit.

### *Application of the Model*

How can counseling psychologists who work as practitioners put this proposed model into practice? The four-front approach (Wright & Lopez, 2002) might prove useful as a starting point in assessing and conceptualizing people and their environments. Investigating positive constructs leads to a better understanding of people and healthy environments, and with understanding comes the potential to use that knowledge effectively. Using the four-front approach as a guide, practitioners increase their likelihood of making meaningful observations about both the client and his or her environment. These observations must identify strengths and assets, as well as weaknesses and liabilities, in both clients and their environments. This general approach should prove equally useful in assessing and conceptualizing clients and their environments whether the practitioner is acting as a consultant in a work or school setting or providing therapy to families or individuals.

After assessing the client and his or her environment, the practitioner could consider specific aspects of the engagement process. The practitioner should recognize the three ingredients of engagement and try to promote them and should recognize the subjective nature of goal attainment by taking into account individual and sociocultural variability with regard to what constitutes a valued outcome. The practitioner should continually add information to his or her conceptualization, which began with the four-front approach, rather than compartmentalize the new data.

Consider the following examples of how professionals might work from an engagement perspective. A counseling psychologist working as a consultant in a school might begin by asking questions that tap the negotiation, participation, and evaluation processes. Regarding negotiation, the counseling psychologist could use the following questions: Does the client (whether child, teacher, administrator, or all of them) have the resources available to function in his or her given roles? How could the environment be more flexible; how could the client be more flexible? Are there ways to maximize the client's strengths in this environment? More specifically, when confronted with a disruptive classroom, a practitioner might explore participation by assessing access to physical resources (e.g., books), amount of individual contact provided to students (determined in part by the teacher-student ratio), and level of group cohesion. To address a child's disruptive behaviors in a family environment, a practitioner could examine negotiation by determining the process by which household rules are established, the amount of flexibility in that process, and the extent to which a child has an age-appropriate role in modifying rules.

While our ideas for applying the engagement model provide a launching point for integrating environmental assessment into clinical practice, it also is important to recognize that people function in various environmental contexts and that a person's interaction with the environment in one context affects his or her functioning and interactions in other contexts. Therefore, we should aspire to exemplary, multidimensional intervention and prevention efforts to change multidetermined problems. For example, children living in communities at high risk for violence may be experiencing negative environmental factors at home or in the community that are more powerful behavioral influences than is a prevention program

implemented solely at school. Thus, to enhance resilience in children, the most effective intervention efforts are likely spread across different environmental contexts, influence multiple systems (i.e., home, school, and community efforts), and focus on the personal and environmental resources as proposed in the engagement model. Indeed, such an endeavor would require collaboration between practitioners or researchers and interdisciplinary teams (e.g., teachers, social workers, community organizations, hospitals, parents) to increase resilience across the domains in which the child functions.

## **Recommendations for Overcoming Environmental Neglect**

Balancing deficit models with positive, strength-based conceptualizations of home, school, and work environments can improve our understanding of how people thrive and experience well-being. While allowing for the dynamic nature of the person-environment interaction and focusing on strengths and resources, the engagement model proposed in this article represents our effort to strike an appropriate balance between explanatory power and parsimonious utility. Such a balance may allow researchers and practitioners to make significant innovations in the area of person-environment interactions. Also, counseling psychology's integration with other fields and an increased emphasis on training scientist-practitioners to attend to the environment could help our specialty overcome environmental neglect.

### *Setting a Research Agenda*

The engagement model of person-environment interaction provides a framework for the empirical investigation of contextual variables generally and of environmental resources more specifically. Within this framework, researchers must explore how this model might provide momentum in bringing empirical forces to bear on environmental factors. This exploration begins with developing assessment devices that tap the model's components. The Gallup Organization has developed a measure that, while not predicated on our engagement model, provides an example of how an instrument might tap engagement in a work environment (see Note 1; Buckingham & Coffman, 1999; Harter et al., 2002). Future measures based on our engagement model may have a general focus,



incorporating all components of the model and having utility across school, family, and work environments, or have a specific focus, tapping only certain concepts involved in engagement and targeting a specific setting. Because the engagement model focuses on factors related to the personal strengths and environmental resources involved in achieving positive outcomes, existing research on positive psychological constructs (Snyder & Lopez, 2002) should be considered in developing such measures. Also, researchers could be guided in developing engagement measures by becoming familiar with past attempts at examining environmental influences on optimal human functioning (Rasmussen et al., 2003). Furthermore, it has been mentioned that disciplines other than psychology have a history of considering interactions between humans and their sociocultural environments. Although it is beyond this article's scope to review specific findings related to that work, researchers in psychology would be wise to consider these scholarly works when moving forward with the empirical investigation of person-environment interactions.

### *Integration With Other Fields of Psychology*

Investigation into person-environment interactions also has taken place in psychology's various subdisciplines, and we should emphasize integrating theory from various fields of psychology with counseling psychology research and practice as we continue to study environments. Findings from career, industrial or organizational, and personality areas of psychology could provide us with information about positive constructs and the environments that foster them. In fact, emerging social psychological research has revealed some aspects of how environmental and social influences affect individuals' behavior. For example, Steele (1997) has suggested that *stereotype threat*, or a negative stereotype that becomes self-relevant during performance in certain domains, might account for differences in performance in individuals with equal ability. In his experimental paradigm with women and men, Steele demonstrated that female participants with equal math ability to males often perform worse than these males on a math task. The theory of stereotype threat suggests that our society's pervasive negative stereotype about women's math ability becomes salient to some of these women as they perform the math task in the experiment. This compelling theory demonstrates a

social psychological area of investigation that counseling psychologists should also consider.

We contend that practitioners could use the engagement model when considering how to approach individuals possibly affected by stereotype threat. First, the practitioner could examine how threatening a certain environment is, as some environments are more so than others. The practitioner could address negotiation by considering adjustments to be made to an environment so it is less threatening or less likely to invoke negative stereotypes. Another important observation is whether those likely to be affected by negative stereotypes have the necessary resources to function in their environments. Participation in our model could be addressed by finding ways that the individual's strengths could be activated in particular environments. In addition, a practitioner could inquire into how many positive versus negative interactions have occurred between the person and his or her environment. Finally, evaluation should be taken into consideration by attending to how the individual appraises his or her ability. Threatening and negative environments can invoke negative appraisals of one's abilities because the negative stereotype becomes salient. Besides helping individuals with cognitive reappraisal techniques, a practitioner could help schools become less threatening environments by encouraging teachers to present math as a malleable skill rather than as an inherent and unchanging ability. Environments might also be less threatening if the number of role models similar to those threatened by the negative stereotype were increased. Research should attempt to uncover buffers or additional methods to decrease the salience of negative stereotypes. The potential for individuals' lives to be affected by stereotype threat underscores the need for continued understanding of school environments and the influence of context on behavior and should encourage integrating findings from different fields to further this understanding.

### *A Call for Training*

Although it may be challenging to integrate information concerning contextual variables with curricula and programs that are already lengthy and full, it is clear that a thorough understanding and acknowledgment of the environment is critical to working with clients. We suggest that programs incorporate aspects of the environmental focus in all courses, particularly those that address issues of practice,



research, and psychodiagnostic assessment. We should emphasize trainees' understanding of the whole person and develop skills related to environmental assessment and the identification of healthy settings.

## Note

1. The Gallup Organization sifted through 25 years of both qualitative and quantitative data to identify factors that point toward successful employees and productive work environments (Buckingham & Coffman, 1999; Harter, Schmidt, & Hayes, 2002). The result was an empirically derived measure consisting of 12 questions (Q<sup>12</sup>) that, when validated through subsequent research, linked certain employee responses to positive business outcomes. When viewed within the framework of our engagement model of person-environment interaction, the Q<sup>12</sup> can reflect the negotiation, participation, and evaluation processes. For example, being aware of environmental expectations, having the resources available to function in a given role, and having a voice in the organization are themes in the Q<sup>12</sup> that relate to negotiation in our model. The Q<sup>12</sup> reflect participation with questions that ask employees about having opportunities to learn, grow, and do what one does best. The Q<sup>12</sup> also cover having a voice in the organization and receiving feedback that relates to evaluation.

## References

- Barker, R. G. (1968). *Ecological psychology: Concepts and methods for studying the environment of human behavior*. Stanford, CA: Stanford University Press.
- Buckingham, M., & Coffman, C. (1999). *First, break all the rules: What the world's greatest managers do differently*. New York: Simon & Schuster.
- Constantine, M. G., & Sue, D. W. (2006). Factors contributing to optimal human functioning in people of color in the United States. *The Counseling Psychologist, 34*, 228-244.
- Conyne, R. K., & Clack, J. R. (1981). *Environmental assessment and design: A new tool for the applied behavioral scientist*. New York: Praeger.
- Cronkite, R. C., Moos, R. H., & Finney, J. W. (1984). The context of adaptation: An integrative perspective on community and treatment environments. In W. A. O'Connor & B. Lubin (Eds.), *Ecological approaches to clinical and community psychology* (pp. 189-215). New York: John Wiley.
- Dawis, R. V., & Lofquist, L. H. (1984). *A psychological theory of work adjustment*. Minneapolis: University of Minnesota Press.
- Folkman, S., Lazarus, R. S., Gruen, R. J., & DeLongis, A. (1986). Appraisal, coping, health status, and psychological symptoms. *Journal of Personality and Social Psychology, 50*, 571-579.

- Gelso, C., & Fretz, B. (2001). *Counseling psychology* (2nd ed.). Fort Worth, TX: Harcourt.
- Goldfried, M. R., & Davison, G. C. (1976). *Clinical behavior therapy*. New York: Holt, Rinehart & Winston.
- Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology, 87*, 268-279.
- Holland, J. L. (1996). Exploring careers with a typology: What we have learned and some new directions. *American Psychologist, 51*, 397-406.
- Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments* (3rd ed.). Odessa, FL: Psychological Assessment Resources.
- Lewin, K. (1935). *A dynamic theory of personality*. New York: McGraw-Hill.
- Moos, R. H. (1991). Connection between school, work, and family settings. In B. J. Fraser & H. J. Walberg (Eds.), *Educational environments: Evaluation, antecedents, and consequences* (pp. 29-53). New York: Pergamon.
- Parsons, F. (1909). *Choosing a vocation*. Boston: Houghton Mifflin.
- Rasmussen, H. N., Neufeld, J. E., Bouwkamp, J. C., Edwards, L. M., Ito, A., Magyar-Moe, J. L., et al. (2003). Environmental assessment: Examining influences on optimal human functioning. In S. J. Lopez & C. R. Snyder (Eds.), *Positive psychological assessment: A handbook of models and measures* (pp. 443-458). Washington, DC: American Psychological Association.
- Robitschek, C., & Woodson, S. J. (2006). Vocational psychology: Using one of counseling psychology's strengths to foster human strength. *The Counseling Psychologist, 34*, 260-275.
- Schneider, B., Smith, D. B., & Goldstein, H. W. (2000). Attraction-selection-attrition: Toward a person-environment psychology of organizations. In W. B. Walsh, K. H. Craik, & R. H. Price (Eds.), *Person-environment psychology: New directions and perspectives* (2nd ed., pp. 6185). Mahwah, NJ: Lawrence Erlbaum.
- Snyder, C. R., & Lopez, S. J. (Eds.). (2002). *The handbook of positive psychology*. New York: Oxford University Press.
- Steele, C. M. (1997). A threat in the air: How stereotypes shape intellectual identity and performance. *American Psychologist, 52*, 613-629.
- Walsh, W. B., Craik, K. H., & Price, R. H. (2000a). Person-environment psychology: A summary and commentary. In W. B. Walsh, K. H. Craik, & R. H. Price (Eds.), *Person-environment psychology: New directions and perspectives* (2nd ed., pp. 297-326). Mahwah, NJ: Lawrence Erlbaum.

Walsh, W. B., Craik, K. H., & Price, R. H. (Eds.). (2000b). *Person-environment psychology: New directions and perspectives* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum.

Wright, B. A., & Lopez, S. J. (2002). Widening the diagnostic focus: A case for including human strengths and environmental resources. In C. R. Snyder & S. J. Lopez (Eds.), *The handbook of positive psychology* (pp. 26-44). New York: Oxford University Press.

## Appendix

### Figure 1

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### Figure 2: An Engagement Model of Person-Environment Interaction

