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Construing Persons in Context

On Building a Science of the Individual

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Ever since the Renaissance, people have constructed sciences: sciences of the natural world (Atkins, 2004); sciences of the social (Vico, 1744/1999), even sciences of the artificial (Simon, 1969). Of these efforts, people can be proud. Even the most skeptical observer must acknowledge that the body of ideas and discoveries that is the sciences constitutes one of humanity's greatest success stories.

Yet in at least one scientific arena our efforts cannot be characterized as a string of successes. Somewhat ironically, it is one in which individuals might be expected to be maximally expert: the science of individuals. Efforts to build a science of the psychological life of the whole, individual person have been marked by false starts, roadblocks, and flat-out breakdowns. Psychology's most intrepid investigator, Sigmund Freud, was so thoroughly discouraged by his first major effort, the *Project for a Scientific Psychology,* that he not only abandoned it but omitted mention of it in his autobiographical writings (Gay, 1988). Freud was proud of his later efforts, but subsequent scientists judged that the unique claims of psychoanalysis, the most renowned of all scientific models of the individual, are supported by few, if any, reliable scientific findings (Kihlstrom, 1990). The 20th century's next guiding paradigm for a science of the individual, behaviorism, now appears

in the literature primarily as an introduction to a story about the cognitive revolution that supplanted it (e.g., Gardner, 1985). The cognitive revolution, in turn, was criticized by one of its primary founders as being so enamored with the information-processing capacities of intelligent machines that it failed to confront the meaning-making capacities of agentic persons (Bruner, 1990). In the psychology of personality, the Big Five model of personality traits energized the field in the 1980s and 1990s (e.g., Goldberg, 1993) but soon was shown to be limited as a model of the individual person in two significant respects: (1) the five factors, being merely latent variables that summarize variation in the population at large, could not be assumed to explain psychological functioning at the level of the individual (Borsboom, Mellenberg, & van Heerden, 2003; also see Sternberg, Chapter 14, this volume), and (2) the factor structure was found to replicate in populations of nonhuman animals (Gosling & John, 1999), which means that it did not capture unique psychological features of persons.

PERSONS OUT OF CONTEXT

The various efforts to build a science of persons reviewed in the paragraph above are so diverse that they may appear to have nothing in common, yet they share a notable quality. Each tended to study the individual by removing the person from the context of his or her life. Freud assessed persons as they lay on couches in his office. Rorschach supplemented these assessments by having them contemplate splotches of ink. Skinner took his research participants out of their environmental niches and put then into metal boxes. Cognitive psychologists investigated inner mental representations while devoting lesser attention to the outer social, cultural, and interpersonal contexts in which those representations develop and come into play (but cf. Clancey, 1994; Vygotsky, 1978; Rogoff, 1990). Trait-based personality psychologists posited global psychological tendencies—that is, average-level tendencies, with the averages computed by aggregating across, and thereby sacrificing information about, the contexts of people's lives.

Why would one do this? Why try to build a science of the individual by pulling individuals out of their life contexts? In part, this intellectual move may have reflected the scientific spirit of the day. Much of 20th-century scientific psychology was shaped by positivism. A positivistic search for generalizable laws may incline one to disregard the possibility that an individual's psychological functioning might vary qualitatively from one context to the next, rather than generalizing broadly across domains. In a "Humean positivistic methodology," one adopts concepts

corresponding to "continuity in . . . behavior" and treats the supposed invariance as "something like a person's character, or personality" (Harré & Secord, 1973, p. 142).

A second possibility is that the notion of context-free psychological qualities is inherently alluring. Irrespective of the scientific zeitgeist of the day, the human mind may find it pleasing to suppose that the world consists of a small set of fixed essential properties that manifest themselves universally (Kagan, 1998 and Chapter 3, this volume). The intuitive plausibility of abstract essences fosters a mindset in which one construes average dispositional tendencies as foundational and deviations from the average as irrelevances. One treats "broad, nonconditional, decontextualized" qualities as "basic" (McAdams & Pals, 2006, p. 207, 208). Due to the attraction of abstract essences, investigators see "diversity as surface and universality as depth" (Geertz, 2000, p. 59).

A third factor has sustained interest in global, person-out-of-context variables specifically in the psychology of personality. It combines two aspects of the field's discourse. The first aspect is somewhat unusual for a scientific discipline: a recurring questioning of whether the discipline's central target of inquiry exists (cf. Goldberg, 1993; Perugini & DeRaad, 2001). Many writers read critiques of the field written in the 1960s (e.g., Mischel, 1968; Peterson, 1968) as questioning whether enduring, distinctive features of individuals existed—that is, whether personality existed (see Isen, Chapter 8, this volume). The second aspect is the nature of the existence proofs that investigators pursued in light of this reading. They relied, to an overwhelming degree, on the criterion of predictability (e.g., Wiggins, 1973). Textbooks instructed that "in psychology . . . our major concern is . . . estimation or prediction" (Horst, 1966, pp. 264–265).

These two lines of thinking combined in a manner that was counterproductive to the growth of personality science (Cervone & Mischel, 2002). The existence discourse made plausible an implausible null hypothesis: Maybe there is nothing out there. The prediction discourse provided a tool for refuting it: If measures of context-free attributes predict anything at all, to any nonzero degree, then the null hypothesis falls; "any nonzero effect of a personality characteristic" is judged "a large effect in practical terms" (Ozer & Benet-Martinez, 2006, p. 416). Since the people who are classified as high and low on global personality trait measures of course do differ from one another, the null hypothesis falls routinely. This rejection of the null, in this storyline of the field, contributed to exultation over the fact that personality exists and consists of global, context-free psychological attributes (see Goldberg, 1993).

This line of discourse is problematic in a number of ways (see Cervone, in press; Cervone, Caldwell, & Orom, in press). One is its

excessive reliance on the criterion of predictability. Philosophers of science have long explained that the fundamental task for science is to explain phenomena and that prediction may be attained in the absence of explanatory understanding. Toulmin (1961), for example, noted that ancient Babylonians could predict eclipses while lacking any understanding of the nature of the cosmos. They merely calculated from numerical tables that described occurrences of past eclipses. The Babylonians had arithmetical tools that yielded prediction but no intellectual tools that yielded explanation; they "acquired great *forecasting-power*" (Toulmin, 1961, p. 30) but failed to achieve the "central aim of science," namely, the "intellectual creation . . . [of] explanatory ideas" (Toulmin, 1961, p. 38). Shweder (Chapter 5, this volume) explains that the decisive question in building a science of the individual is how best to formulate an explanatory model that might yield understanding of purposive human action.

The second curious feature of personality psychology's discourse is that the existence of significant, enduring differences among persons is so self-evident that one must wonder not only how anyone could question it, but if anyone actually did. Consider the critique generally seen as the most severe, that of Mischel (1968). Mischel did not question the existence of enduring personal qualities to be explained by a science of personality; he questioned the adequacy of the extant scientific strategies. The conclusion of his famed volume was that the research methods of the time were inadequate; they "[missed] both the richness and the uniqueness of individual lives" (Mischel, 1968, p. 301). The primary inadequacy was the inattention to context. "The notion of 'typical' behavior" led investigators to treat "situational variability as . . . 'error' " (Mischel, 1968, p. 296) and deflected attention from the essence of psychological functioning, which, "rather than being exclusively intrapsychic," involves dynamic relations between "behavior and the conditions in which the behavior occurs" (Mischel, 1968, p. 298).

PUTTING PERSONS IN THEIR PLACE

This book features contemporary efforts to build a science of the individual by studying persons in context. In some respects, such efforts are not new. Psychological scientists have long attended to questions of social context; "context makes no difference" is as much a strawman position as "personality does not exist." Within the psychology of personality, an important line of thinking in the past three to four decades has been interactionism (e.g., Magnusson & Endler, 1977). Interactionist investigators have long recognized that more of the variance in social

behavior can be predicted if one takes a step beyond merely classifying persons according to global dispositional tendencies. The extra step is to observe the differentially classified persons in different settings. Measures of global dispositional constructs may predict more between-person variability in behavior or emotion in one setting than in another. For example, rank orderings of persons on a global trait such as neuroticism may predict more of the variability in emotional reactions in settings that feature threats than in stress-free contexts. Classifications on the global trait of extraversion might predict more of the variability in talking at large parties than in talking in small classroom discussion sections.

There can be no question that measures of context-free, average-level personality constructs often are correlated to a nonzero degree with measures of important psychosocial outcomes. There also is no question that such validity coefficients often vary across context (see Schmitt & Borkenau, 1992). The distinguishing feature of the present contributions is that they pose a deeper question—"deeper" in that the presuppositions made in computing such correlations are questioned. Contributors commonly do not accept a picture of the world in which context-free averages are what is basic. Instead, the statistical average is seen as just that: a statistic, a parameter computed by an investigator who, by dint of professional training, attraction to abstract essential qualities, or some combination of the two, is inclined to aggregate emotional experiences and social actions that occur in widely varying contexts. The aggregating has two costs. If one's goal is to describe the meaningful social behavior of the individual, much information is lost. Even a minimally adequate scientific description may need to include information about how the individual's behavior varies across context. If one's goal is to map the mental systems that make up the individual's personality, context-free averages may be an unsure guide. Affective systems of personality may be context linked in that they are activated by environmental cues present in some settings but not others (see Kagan, Chapter 3, this volume). Cognitive systems are context linked in that most cognition has the quality of intentionality (Searle, 1983); that is, cognitive content represents, and is directed to, particular aspects of the world. Contributors of the chapters that comprise the present volume, then, pursue the scientific goals of description and explanation by studying persons in context.

Overview of the Present Volume: Four Mischelian Themes

In some respects, the contributors to this volume are an exceptionally diverse group. Not only do they represent varied subfields of

psychology—personality, social, cognitive, developmental, cultural—but one of them is not a psychologist at all but a cancer biologist (Paul Mischel). Despite this professional diversity, the volume as a whole possesses much substantive coherence. A common set of themes is sounded consistently across the chapters.

This substantive coherence stems in part from the book's origins. The contributors took part in a festschrift conference at Columbia University held to honor the career contributions and recent election to the U.S. National Academy of Sciences of Walter Mischel, the Robert Johnston Niven Professor of Humane Letters at Columbia University. Prior to the conference, participants were asked to consider the relationship between their own work and the ideas in a specific paper of Mischel's, namely his 1973 "reconceptualization" of personality that appeared in the *Psychological Review*; this citation classic is reprinted as Chapter 16, this volume. Four themes Mischel developed in this article can serve as a framework for an overview of the contributions to this volume:

1. *Ground a science of the individual on the study of basic psychological processes.* This idea, which may seem obvious in retrospect, needed to be stated because an alternative was—and, to a significant degree, still is—popular. The alternative is to base a science of persons on descriptive taxonomic constructs. One might describe individual differences in observable social behavior, use these descriptions to formulate a descriptive taxonomy of between-person differences, and treat the resulting taxonomy as foundational to a science of the individual. Mischel judged this strategy inadequate for at least two reasons: (a) One obtains little understanding of the psychological processes underlying the behaviors that are observed, and (b) the taxonomy might not even be a good first step in identifying those processes because different people may engage in the same observable actions for different reasons. He argued, then, that the field would best advance by treating as foundational the basic cognitive and affective processes underlying observed behavior. The goal was to specify psychological systems that give rise to the enduring observable qualities that are the basis of our intuitive inferences about an individual's personality. Mischel's argument had a huge pragmatic advantage. It placed personality psychologists into a partnership with investigators in the cognitive, social, developmental, and neural sciences, whose explorations of brain and mind contribute to an understanding of the development and functioning of the whole individual.

2. *Self-control.* Mischel's 1973 piece highlighted, as a central challenge for the field, the psychological systems that underlie people's

capacity to delay, suppress, modify, and, more generally, gain control over their impulsive emotions. Not only did Mischel's arguments draw needed attention to processes of self-control, but they also had the broader effect of highlighting the role of competencies in personality functioning. People's everyday social behavior often is well understood by analyzing the cognitive and behavioral competencies that they possess and the relation between those competencies and situational demands.

3. *Individual idiosyncracy.* A third theme is that a science of the person must grapple with the idiosyncracies of the individual. In accord with classic theorists such as Lewin (1935) and Murray (1938), Mischel argued that the personality psychologist's target of inquiry was not an abstract, prototypical person whose qualities could be discerned by averaging features displayed by a large sample of individuals. The target was the actual, concrete individual. For purposes both scientific and practical, the target of explanation for the personality scientist is the psychological life and social action of the potentially idiosyncratic individual.

4. *Persons in context.* The fourth theme is the one we have highlighted already: to build a science of the individual, one must study persons in context.

Each of these four themes is reflected, in distinctive ways, in the contributions to this volume. Regarding the first theme, that of grounding a science of the individual on the study of basic cognitive and affective processes, Smith (Chapter 9, this volume) reviews neuroimaging evidence of the activation of brain regions that mediate pain perception, particularly in the study of placebo effects. In so doing, he shows how contemporary evidence in cognitive neuroscience illuminates the functional role of expectancies—one of the five person variables proposed by Mischel (1973). Isen (Chapter 8, this volume) reviews research showing how the release of dopamine in frontal cortical regions underlies the influence of positive affect on personality functioning. Bower (Chapter 2, this volume) shows that the model of personality processes developed by Mischel and Shoda (1995) can be reconfigured as a feedforward connectionist model that can be "trained" across trials of social interaction and feedback. Bower's contribution illustrates how conceptual tools in cognitive science can directly inform the most basic task in the science of personality: developing a comprehensive model of the overall architecture of personality structures and processes. Shoda (Chapter 17, this volume) explicates a critical implication of a process-based approach to personality—namely, that it leads one to treat personality as a system. As he explains, a key implication of a systems perspective involves explanation. We may label an individual's overt tendencies with a natural-language term that corresponds to an average behavioral tendency (e.g.,

"conscientious") but in a systems perspective one would *not* expect to find an isomorphic structure (e.g., a structure "of conscientiousness"), in the psyche of the individual actor. Similarly, Higgins (Chapter 7, this volume) insightfully explains that Mischel's processing perspective moves beyond a simple "content-matching" assumption, or the assumption of a match between an intuitively constructed class of manifest social action and the mechanisms underlying that action. Finally, Mendoza-Denton, Park, and O'Connor (Chapter 12, this volume) provide a unique perspective on questions of basic personality processes. They review research showing that lay perceivers, when engaged in person perception, inherently become "Mischelian" in certain contexts. Rather then primarily inferring the existence of global personality traits, perceivers infer the presence of dynamic, contextualized cognitive and affective personality processes when they make inferences either about important, well-known targets or about targets whose trait-related behavior varies systematically across contexts.

A variety of chapters sound the second theme, that of self-control and personal competencies. Kagan (Chapter 3, this volume) addresses the development of personal competencies. He explains why competencies must be conceptualized not as abstract abilities that transcend time and place, but as capacities that manifest themselves in context and that can only be properly described and understood if one considers the context in which performance occurs. Sternberg (Chapter 14, this volume) addresses the nature of intelligence and emphasizes that the concept of intelligence incorporates a variety of capacities, some of which are basic to the solution of everyday problems of social behavior that are commonly seen as manifestations of personality. Higgins (Chapter 7) explores the phenomenological experiences associated with efforts to regulate one's actions by examining experiences of regulatory fit—that is, experiences that occur when individuals pursue a goal in a manner consistent with their goal orientation. Isen (Chapter 8) reviews research on the role of positive affect in self-control, which leads to the important conclusion that positive affect can promote self-control through its effect on the flexibility of thinking. Ayduk (Chapter 6) reviews the seminal research of Mischel and colleagues on children's capacity for delay of gratification. She explains how current research documents the importance of this self-control capacity to success in both achievement and interpersonal domains.

Various contributors highlight the theme of individual idiosyncrasy. Paul Mischel (Chapter 13) describes a paradigm shift in medicine that parallels the paradigm shift in psychology heralded by Walter Mischel (1973). Rather than fitting individual clients into generic classificatory

schemes based on observable symptoms, the contemporary physician pursues individual care that is grounded in molecular classification. Sternberg, when explaining that successful intelligence must be assessed by gauging a person's actions in relation to his or her personal life pursuits, notes that such pursuits "can be astonishingly varied" (Sternberg, Chapter 14, this volume, p. xxx), an observation that inherently calls for an individual-centered approach to assessing successful intelligence. When reviewing and extending Mischel and Shoda's (1995) cognitive-affective personality systems (CAPS) model, Bower notes that the phenomenon being modeled is the behavioral profile exhibited by "a given individual" (Chapter 2, this volume, pp. 240–241); the explanandum is not variation in the population at large, but variability in the social actions of a given individual. Andersen and Thorpe explain that their groundbreaking work on social-cognitive processes in transference relies on idiographic assessments of both mental representations and the social contexts in which those representations are activated. Their combination of individual-centered methods with a nomothetic theory of psychological processes yields a "combined idiographic–nomothetic approach" (Andersen & Thorpe, Chapter 10, this volume, p. 178) that is sensitive to idiosyncracy in the activation of transference processes.

The fourth theme, the need to attend to context, is so pervasive in these chapters that we will only highlight a few cases in which contributors enunciate it with particular force. One important context for understanding the individual is the macro-context of culture. Nisbett (Chapter 4) reviews his landmark program of research on cultural (Eastern vs. Western world) variations in individuals' experiences of the world. In the West, perceivers tend to view entities as possessing encapsulated essential qualities. In the East, holistic thinking predominates; objects are perceived in relation to a broader contextual field within which they are embedded. The person-in-situation perspective of Mischel is seen as a natural conception of the individual from the Eastern perspective. Shweder draws upon concepts developed in cultural psychology and anthropology in arguing that the message "attend to context" is even deeper than it may at first appear, as it entails a "shift in metatheoretical assumptions" (Shweder, Chapter 5, this volume, p. 91) in which social action is no longer viewed as the product of separate person and situation variables. Instead, one views the person as an agent who constructs and acts upon meaning, and one adopts as core explanatory variables preference and constraints—variables that are inherently contextual.

Another important aspect of context is the more local, micro-environment of interpersonal relations. Andersen and Thorpe's (Chapter 10, this volume) review of the model of the relational self (Andersen &

Chen, 2002) highlights the fact that mental representations of significant others are activated only in particular interpersonal contexts. Attention to context, then, is necessary to understand the basic functioning of the underlying psychological systems. Ayduk's (Chapter 6) review of research on rejection sensitivity similarly highlights this theme.

The importance of context also is evident in investigators' careful attention to an aspect of personality long highlighted by Mischel and colleagues: *intra*individual variability across time and settings. The potential of studying intraindividual variability is illustrated particularly vividly by Bolger and Romero-Canyas (Chapter 11), who review advances in research methods (especially experience-sampling techniques) and data analysis that enable investigators to obtain intensive, detailed descriptions of the personality tendencies of a given individual as he or she confronts the varying everyday contexts of his or her life. Other contributions also speak eloquently to the question of intraindividual variability. Bower's (Chapter 2) analysis of production rules inherently addresses the topic in that a production rule has a "condition side"—that is, the action represented in the rule is enacted only when particular situational conditions are encountered. Sternberg's (Chapter 14) analysis of intelligence reveals the influence of situational contexts on performance on intelligence tests and, more generally, indicates that the specific capacities required to act in a manner that one may rightly call "intelligent" can vary dramatically from one social, cultural, or socioeconomic context to another. Mendoza-Denton, Park, and O'Connor (Chapter 12) show that lay perceivers spontaneously attend to context when making inferences about the psychological qualities of others. Finally, Paul Mischel's (Chapter 13) review of recent research in cancer biology documents remarkable parallels between Walter Mischel's contributions to the study of personality-in-context and advances in this branch of biomedicine. The search for mechanisms underlying sensitivity and resistance to drugs in cancer treatment is shown to be informed by a conditional *if . . . then . . .* analysis inspired by Mischel and colleagues' (Mischel & Shoda, 1995) analysis of *if . . . then . . .* behavioral signatures in the study of personality.

Organization of the Volume

This volume is not organized around these four thematic building blocks for a science of the individual—basic processes, self-control, individual idiosyncracy, and context—for reasons that are apparent from the review above; each of a number of different chapters speaks to each of

the themes. We thus have organized the contributions to the volume around three more general topics: Conceptualizing the Person, Self-Regulation, and Incorporating Situations into a Science of the Individual. The reader should recognize that this three-part organization, while useful, underestimates the coherent interrelations among the chapters that become apparent when considering the four Mischelian themes that appear throughout the book.

Finally, the concluding section of this book includes the piece that was the touchstone for contributors to the volume: Mischel's 1973 article in *Psychological Review.* It is preceded by a commentary prepared for this book by Mischel, who reflects on the spirit of the times in which that paper was written and the subsequent advances that fostered psychological science's ever-growing awareness of the need to understand the multiplicity of interactions between persons and the social contexts within which they live.

CONCLUSIONS AND THANKS

We conclude this chapter with a salute to our inspirational colleague Walter Mischel. This volume pays tribute to his scientific findings, his theoretical advances, his professional guidance, and his personal friendship. But we are indebted most of all to his intellectual courage. In 1968, in *Personality and Assessment,* Mischel had the courage to say—louder and more clearly and bluntly than anyone else—that personality psychology's standard operating procedures were substandard. They were, if not a dead end, then a road that no longer should be taken. Other paths, less traveled at that time, led more surely to a cumulative, integrative science of the individual.

Mischel prompted a crisis in the field in 1968. At a personal level, creating a crisis is not the easiest thing to do. It prompts attacks both substantive and ad hominem. Readers forget the lesson taught by Kuhn that it is "period[s] of pronounced professional insecurity" (Kuhn, 1962, pp. 67–68) that trigger periods of innovative scientific theory and research and misconstrue one's purposes as destructive rather than constructive.

Kuhn's lesson implies that for a field to advance, someone must be willing to create the crisis. Someone must have not only the intelligence but the fortitude to tell a field its problems and to weather the aftermath that follows. This burden fell primarily on Mischel, as he surely knew it would. The contributions to this volume attest to the scientific innovations that followed in *Personality and Assessment*'s wake.

REFERENCES

Andersen, S. M., & Chen, S. (2002). The relational self: An interpersonal social-cognitive theory. *Psychological Review, 109,* 619–645.

Atkins, P. (2004). *Galileo's finger.* New York: Oxford University Press.

Borsboom, D., Mellenbergh, G. J., & van Heerden, J. (2003). The theoretical status of latent variables. *Psychological Review, 110,* 203–219.

Bruner, J. (1990). *Acts of meaning.* Cambridge, MA: Harvard University Press.

Cervone, D. (in press). Explanatory models of personality: Social-cognitive theories and the knowledge-and-appraisal model of personality architecture. In G. Boyle, G. Matthews, & D. Saklofske (Eds.), *Handbook of personality and testing.* London: Sage.

Cervone, D., Caldwell, T. L., & Orom, H. (in press). Beyond person and situation effects: Intraindividual personality architecture and its implications for the study of personality and social behavior. In A. Kruglanski & J. Forgas (Series Eds.) & F. Rhodewalt (Vol. Ed.), *Frontiers of social psychology: Personality and social behavior.* New York: Psychology Press.

Cervone, D., & Mischel, W. (Eds.). (2002). *Advances in personality science.* New York: Guilford Press.

Clancey, W. J. (1994). Situated cognition: How representations are created and given meaning. In R. Lewis & P. Mendelsohn (Eds.), *Lessons from Learning* (pp. 231–242). Amsterdam: North Holland.

Gardner, H. (1985). *The mind's new science: A history of the cognitive revolution.* New York: Basic Books.

Gay, P. (1988). *Freud: A life for our times.* New York: Norton.

Geertz, C. (2000). *Available light: Anthropological reflections on philosophical topics.* Princeton, NJ: Princeton University Press.

Goldberg, L. R. (1993). The structure of phenotypic personality traits. *American Psychologist, 48,* 26–34.

Gosling, S. D., & John, O. P. (1999). Personality dimensions in nonhuman animals: A cross-species review. *Contemporary Directions in Psychological Science, 8,* 69–75.

Harré, R., & Secord, P. F. (1973). *The explanation of social behaviour.* Oxford, UK: Blackwell.

Horst, P. (1966). *Psychological measurement and prediction.* Belmont, CA: Wadsworth.

Kagan, J. (1998). *Three seductive ideas.* Cambridge, MA: Harvard University Press.

Kihlstrom, J. F. (1990). The psychological unconscious. In L. Pervin (Ed.), *Handbook of personality: Theory and research* (pp. 445–464). New York: Guilford Press.

Kuhn, T. S. (1962). *The structure of scientific revolutions.* Chicago: University of Chicago Press.

Lewin, K. (1935). *A dynamic theory of personality: Selected papers.* New York: McGraw-Hill.

Magnusson, D., & Endler, N. S. (Eds.). (1977). *Personality at the crossroads: Current issues in interactional psychology.* Hillsdale, NJ: Erlbaum.

McAdams, D. P., & Pals, J. L. (2006). A new Big Five: Fundamental principles for an integrative science of personality. *American Psychologist, 61,* 204–217.

Mischel, W. (1968). *Personality and assessment.* New York: Wiley.

Mischel, W. (1973). Toward a cognitive social learning reconceptualization of personality. *Psychological Review, 80,* 252–283.

Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review, 102,* 246–286.

Murray, H. A. (1938). *Explorations in personality.* New York: Oxford University Press.

Ozer, D. J., & Benet-Martinez, V. (2006). Personality and the prediction of consequential outcomes. *Annual Review of Psychology, 57,* 401–421.

Perugini, M., & DeRaad, B. (2001). Editorial: Personality and economic behaviour. *European Journal of Personality, 15,* S1–S4.

Peterson, D. R. (1968). *The clinical study of social behavior.* New York: Appleton-Century-Crofts.

Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context.* New York: Oxford University Press.

Schmitt, M., & Borkenau, P. (1992). The consistency of personality. In G. V. Caprara & G. Van Heck (Eds.), *Modern personality psychology* (pp. 29–55). London: Harvester-Weatsheaf.

Searle, J. R. (1983). *Intentionality: An essay in the philosophy of mind.* New York: Cambridge University Press.

Simon, H. A. (1969). *The sciences of the artificial.* Cambridge, MA: MIT Press.

Toulmin, S. (1961). *Foresight and understanding: An enquiry into the aims of science.* Bloomington: Indiana University Press.

Vico, G. (1999). *New science: Principles of the new science concerning the common nature of nations* (3rd ed.). London: Penguin Books. (Original work published 1744)

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

Wiggins, J. S. (1973). *Personality and prediction: Principles of personality assessment.* Reading, MA: Addison-Wesley.

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