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Commentary

From *Personality and Assessment* (1968) to Personality Science, 2009

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ABSTRACT

This article reviews the context in which *Personality and Assessment* (1968) was written, why I wrote it, what it said and did not say, and the key challenges and issues it raised for the field in the 40 years since its publication. I focus on the theoretical re-conceptualization that became the Cognitive-Affective Processing System (CAPS) model of personality, the empirical discoveries about the structure and organization of the individual's social behavior that enabled it, and the resolutions they allow for the problems identified in the 1968 book. These developments also suggest a very different agenda, indeed a new paradigm, for the future of personality science, which is outlined here.

1. Introduction

The papers in this special issue of the *Journal of Research in Personality* look back at *Personality and Assessment* (1968), and what followed and, more important, help move us forward towards an exciting future for the field. They offer a varied, constructive, often remarkably creative, and very appreciated intellectual feast, illustrating the different routes our field has taken in the last forty years, and the new directions in which many of the contributions are helping to build an increasingly deep, cumulative, integrative science of personality. Bravo to one and all, and special thanks to the editors, Professors Donnellan, Lucas, and Fleeson, who made it happen.

It would go beyond my role and page allocation to try to discuss all the individual contributions, or even to sample them systematically. Although each one merits serious attention, and I gained much from studying them, I will only refer to a very few that seem especially relevant to the story, through my eyes, of *Personality and Assessment*, past, present, and as the field goes forward. Here I focus on my recollections of the context in which I wrote the 1968 book, my goals and hopes for it then, my sense of the reactions to it over time, and some thoughts on what grew out of it in my work and that of my colleagues and so many others in the last four decades. I'll end with my abridged wish list for the future of our science, and some of the main challenges and opportunities that await personality psychologists.

2. Stumbling into Personality and Assessment (1968)

I stumbled in uneven starts, stops, and detours into what became the 1968 book. I had little sense at the outset about what it would become, and even less about the impact that it would turn out to have, first in years of crisis and paradigm challenge to traditional concepts of personality, then in a burst of work in new directions that is enriching and deepening our understanding of personality and human nature, and promises a vibrant future for personality science.

It started in 1960 when I was teaching at Harvard in the Social Relations Department, struggling to prepare a survey course for graduate students in the personality program on the state of personality psychology and assessment. Because my own training and the context of the time are the background for the l968 book, and of course influenced it, it's worth noting that my senior colleagues at Harvard with whom I interacted closely included Gordon Allport, Henry Murray, and David McClelland. I admired and greatly respected each one, learned much from all of them, and will always be grateful to them. My extraordinary mentors at Ohio State for the Ph.D. in clinical psychology (in 1956) had been George Kelly and Julian Rotter. I shared the excitement of working with them at that special time when Kelly was completing his *Psychology of Personal Constructs* (1955) and Rotter's *Social Learning and Clinical Psychology* (1954) had just been published, and sensed the enormous importance of their contributions. Their impact on my thinking and work is evident, and gratefully acknowledged. Before Ohio State, I had been exposed extensively to psychodynamic and psychoanalytic thinking. I lived my first 8 years in Vienna not far from Freud's office, and still feel his influence. It was Freud's ideas, and their contrast to the rat psychology dominant at that time, that attracted me into clinical psychology, and in 1951 into the excellent small M.A. program in clinical psychology at the City College of New York, as described in my autobiography (Mischel, 2007).

The deeper I got into the literature to prepare for that survey course at Harvard, the more I was struck by the discrepancies between what the personality theories assumed and what the data

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showed, for both the then-dominant trait and psychodynamic-psychoanalytic approaches. In research articles and doctoral dissertations I was surprised to so often find the same depressing conclusions. In those apologies, disappointed investigators blamed the failure of their personality tests and their studies to predict what people actually do in particular situations on the limitations of the measures and of their own research efforts. But nobody questioned the key theoretical assumptions that guided them.

After a year spent trying to make sense of this, I shared the researchers' unhappy conclusions, and tried hard to forget it. Soon, however, I became a consultant for personality assessment to help select the first volunteers into the Kennedy administration's new Peace Corps projects (Mischel, 1965), and I came face to face again with the same dilemma. Our efforts to predict behavior and make effective assessment decisions were much like those piling up in the literature, and motivated me again to try to make sense of the findings. I spent most of the next seven years at Stanford University writing *Personality and Assessment*.

3. The first traumatic reactions

The 1968 monograph distressed many personality psychologists, I think, not because it called attention to the disappointing results of personality assessment research: That was already beginning to become clear (e.g. Hunt, 1965; Vernon, 1964). It was traumatic because it asked: What if the problem is not just with bad methods and poor studies but also with wrong assumptions? And I concluded that for a half century, researchers had been looking for personality guided by untenable assumptions, and therefore could not find the results they expected.

After the 1968 book was dismissed on a back page of *Contemporary Psychology,* in a short review titled "Personality Unvanquished," within a year the "person versus the situation debate" exploded and dominated entirely too much of the agenda in personality and social psychology. For more than fifteen years, this heated confrontation filled the journals' pages and the field's national and international meetings, and deepened what to me was the absurd conceptual split between person and situation and between personality psychology and social psychology. Most personality psychologists saw the 1968 book as trivializing the importance of personality and over-blowing the causal power of situations, reading it as a rejection of the "existence of personality" and the "power of the person." Most social psychologists read it as proof for the "power of the situation" and the relative insignificance of individual differences in personality. In their debate, the two sides pitted the "power of the person" versus "the power of the situation," to argue about which was the bigger causal agent, which one accounted for more variance.

4. What was in the 1968 book? Not *said* about it, but *in* it?

Both sides of the debate, I thought, were missing the key points of the 1968 book and distorting the messages I intended. Forty years later it is therefore especially gratifying to see that Orom and Cervone (2009) do something that almost never happens for the 1968 book: They do a scholarly review and systematic, quantitative content analysis of what's in it, not what gets said about it. They point out that the book consists of two halves: The first documents the challenges facing the field and some of the main limitations in the concepts and methods regnant at that time; the second:

> "concerns psychological dynamics, cognitive processes, subjective meaning, and individual idiosyncrasy. In these pages, the book has little coverage of personality "traits" or "consistency" – topics commonly thought to have dominated Mischel's work. Our analysis indicates that...the point of his book was to advance a personality psychology that centered on psychological dynamics of meaning construction and that simultaneously was sensitive to the idiosyncrasies of the individual." (Orom & Cervone, 2009).

As one example, Orom and Cervone then quote me: "In the present view, the assessor's concern is with the particular meanings that stimuli have acquired" (Mischel, 1968, p. 300).

They (Orom and Cervone) conclude their paper by forcefully making a point I have long hoped to see in the personality literature: "Whether you liked it or not, the first half of Mischel's famed volume did not argue that cross-situational consistency in personality functioning is low. It argued that cross-situational consistency in personality functioning is low when one searches for consistency through the lens of global, nomothetic trait constructs. When one tries on different lenses, things clear up" (Orom & Cervone, 2009). Their paper, along with many others in the present volume, show how exciting it can be to look at personality with new lenses, and find surprises along the way.

In this special issue it is clear that many other contributors also read and understood the 1968 book as I hoped it would be, and constructively took up its challenges in their own work in new directions, gaining from, and contributing to, the research and theory building that followed from it and that continues vigorously. But the present issue also illustrates another common use of the 1968 book that has become part of its history and impact—indeed it has become a tradition of its own, enshrined in textbooks and handbooks of personality. In this tradition, it has become customary to conflate erroneously what has been often said about *Personality and Assessment* with what I actually said.

This is illustrated in Roberts' piece in this special issue. After noting that "looking at the future entails having a good grasp of the past" (Roberts, 2009), with which I strongly agree, and in a contribution that seeks to straighten the historical record so we can (40 years later) move toward a better future, Roberts goes on to attribute conclusions to *Personality and Assessment* that it never drew. Under the header "Fallout," (Roberts, 2009) a term usually reserved for the effects of disasters, the paper illustrates what might be dubbed the "substitution problem": What has been said about the book (an awful lot, over and over again, a bit different in each retelling) begins to replace what the book said. I suspect that such substitution has been the route through which many students over multiple generations have learned about *Personality and Assessment*. They would be surprised (some told me they were amazed) by the discrepancies between what they heard about the book and what they find when they read it. If in doubt, go look and see for yourself; the book is still easily accessible.

5. Against the person-situation debate: 1973 cognitive-social reconceptualization

To address the confusions that quickly arose in the first round of the 1968 "fallout," and that were being spun into the "person-versus-situation debate," I wrote the *Psychological Review* piece on the "Cognitive-social reconceptualization of personality" (Mischel, 1973). It would take a historian of science to try to figure out why it seemed to have zero impact on the person-situation debate that the 1968 book was said to have caused. The 1973 article was very widely cited by those outside the debate, but remained unmentioned by those who kept fueling it. That war just kept rolling on.

The debate became so intense and persisted for years, I think, because it reflected the deeply entrenched traditional explanation

of human behavior in western culture since the ancient Greeks. Namely, what people do is due *either* to the internal character and traits of the individual *or* to the external situation in which the individual finds him- or herself. In this zero-sum formula of the relationship between the situation and the person, to the degree that the person was important, the situation was not, and vice versa. For personality psychologists, the situation was the "error term" or noise that had to be removed to see the main effects of the person; for social psychologists, the individual differences became the error term, and the power was in the situation, with fruitless arguments about who had the bigger main effect.

5.1. The person as a meaning-maker

In the 1973 article, I rejected the question "Is information about individuals more important than information about situations?" It is unanswerable and bound to just generate polemics. It treats situations and persons as entities that supposedly exert either major or only minor control over behavior. Instead, I argued then, and still believe now, that we need to examine what situations are psychologically meaningful for different individuals and types, and how they may be mentally represented and function in the expressions of social behavior and in the organization and activation of the underlying personality system. The goal is to understand the nature of the dynamic interchange and reciprocal transactions between situations and individuals, and it is to address this challenge that Yuichi Shoda and I formulated CAPS, the Cognitive Affective Processing System (Mischel & Shoda, 1995).

I revisit the 1973 *Psychological Review* here in some detail because it turned out to be the foundation for much of the work that followed. In 1973, I developed the thesis, suggested already in 1968 (as Orom and Cervone, this volume, recognized) that if we include the situation as it is perceived by the person, and analyze behavior in this situational context, the consistencies that characterize the person, rather than disappearing as had been assumed, would be seen. These individual differences would be found in distinctive but stable patterns of *if…then…*, situation-behavior relations that form contextualized, psychologically meaningful personality signatures (e.g., "she does A when X, but B when Y").

I argued that the classic assumption of high cross-situational consistency in trait-relevant behavior becomes untenable if one examines how the mind works as people try to adapt to diverse situations. To understand that process, I proposed a constructivist, dynamic view of the person as a meaning-maker, and analyzed how individuals make meaning out of the situations they encounter and use this to adapt their behavior accordingly to each situation. Because such adaptability and the ability to discriminate even among subtly different situations is essential for survival, humans could not have evolved to behave consistently across situations that vary in the challenges they pose and the solutions they require. Instead, people behave in ways that are consistent with the meanings that particular situations have for them: Individual differences arise from the distinctive ways that the person processes and understands situations, which in turn reflects the individuals' psycho-social and biological histories.

5.2. Social-cognitive person variables

If different situations acquire different meanings for the same person, then the social cognitive person variables (e.g., the appraisals, expectations and beliefs, affects, goals, feelings, and behavioral scripts) that become activated in particular situations, will also vary. Therefore we should not expect the individual to behave similarly in relation to different psychological situations unless they are functionally equivalent in meaning. Other personality theorists, including Gordon Allport, had made similar points, but they were not reflected in the trait theories and practices dominant at the time. I reasoned further that adaptive behavior should be enhanced by "discriminative facility" – the ability to make fine-grained distinctions among situations. Conversely, it should be undermined by broad response tendencies insensitive to context and the very different consequences produced by even subtle differences in behavior when situations differ in their nuances, as later research has shown (e.g., Cantor & Kihlstrom, 1987; Cheng, 2001; Cheng, 2003; Chiu, Hong, Mischel, & Shoda, 1995; Mendoza-Denton, Ayduk, et al., 2001).

5.3. Psychological phenomena, including personality, are contextualized

The key implication is that to find the invariance and coherence in personality we have to take account of the situation and its meaning for the individual. To explain what people feel and think and do, we have to understand the person-situation conjunction, rather than splitting it or trying to estimate which side of it accounts for more of the variance in behavior. In current psychological science this view of the "situated" or contextualized person has its new parallels in other domains of psychological science, such as "situated cognitions" (e.g., Smith & Collins, in press), contextualized memory (e.g., Everling, Tinsley, Gaffan, & Duncan, 2006; Feldman-Barrett, Mesquita, & Smith, in press), and the contextualized situation-dependent workings of the brain and DNA (e.g., Champagne, in press). Like most of science, psychological science, not just some of personality psychology, is becoming increasingly focused on context and interactions, and sensitive to the critical importance of the particular relevant "environment" for understanding the phenomena of interest, whether social, psychological, economic-political or (and most self-evident) biological-genetic (see Champagne, in press; Mischel, Shoda, & Ayduk, 2008). This contextualized, interactionist view, and its implications for the agenda and future of personality psychology, however, is by no means universally shared within personality psychology (e.g., Funder, 2009), as I discuss at the end of this essay.

6. Incorporating situations into dispositions: *If…then…* signatures of personality

The 1973 paper tried, unsuccessfully, to end the debate, and left large questions dangling: How do we reconcile the variability of the individual's behavior across situations with our intuitive conviction that each individual is characterized by stable and distinctive qualities? What remains consistent through the changing stream of thoughts, feelings, and behaviors? How can whatever is stable be captured? Where is the coherence and stability that underlie the individual's thoughts, feelings, and behaviors, and the window into the underlying personality processing dynamics and system?

6.1. Searching for consistency in "thick" behavior in vivo

The 1968 book bemoaned the virtually complete reliance of personality research on questionnaires and ratings about what people "are like on the whole," with few in depth studies observing what people actually do as they lead their lives across different situations and over time. In 1937 when Gordon Allport founded the field of personality, he hoped to make the search for patterns of individual differences in the stream of behavior central. He urged "…the constant return to the observable stream of behavior, the only basic datum with which the psychology of personality has to work. …" And further: "Unless full recognition is given to this continuous, variable, and convergent character of behavior, the

theory of traits will become a purely fanciful doctrine of 'little men within the breast…'" (Allport, 1937, p. 313). To answer Allport's challenge required getting thick behavioral data with extremely extensive observation of social behavior as it unfolds naturally, sampled repeatedly across diverse situations. It was virtually impossible to conduct such work on a large scale until video cameras and adequate computers became available. But armed with these tools in the early 1980's, it became possible to pursue the route Allport had wanted to see personality psychologists take from the outset.

Beginning in the early 1980s, my students, colleagues, and I examined in detail the structure and organization of individual differences in social behavior and the expressions of personality, first in the Carleton College Study (Mischel & Peake, 1982) and then in the Wediko camp studies (e.g., Mischel & Shoda, 1995; Shoda, Mischel, & Wright, 1993). The results, and in the many years since then, much exciting new research, well-documented in the present special issue, collectively make it clear that this search has yielded a new understanding of the nature and structure of the personality consistency that characterizes different individuals and types.

To briefly recapitulate, when closely observed, individuals in these studies were characterized by stable, distinctive, and highly meaningful patterns of variability in their actions, thoughts, and feelings across different types of situations. These *if…then…*, situation-behavior relationships, as anticipated in the 1973 article, form a kind of *"behavioral signature of personality"* that identifies the individual distinctively, is relatively stable, maps onto the impressions formed by observers about what they are like, and opens a window into the personality organization and dynamics that underlie the signatures (Mischel & Shoda, 2008; Shoda, Mischel, & Wright, 1994; Shoda et al., 1993). The camp findings gave clear evidence for the stability of *if…then…* behavioral signatures, and have been buttressed by data from other studies, some in this special issue, and elsewhere (e.g., Shoda, Cervone, & Downey, 2007; Vansteelandt & Van Mechelen, 1998) indicating that such reliable patterns of behavior variability characterize individuals distinctively as a rule, rather than an exception, and in diverse domains, measured in all sorts of different ways (e.g., Andersen & Chen, 2002; Borkenau, Riemann, Spinath, & Angleitner, 2006; Cervone & Shoda, 1999; Fournier, Moskowitz, & Zuroff, 2008; Shoda & LeeTiernan, 2002).

This type of stability in patterns of variability contradicts traditional assumptions about the consistency and structure of dispositions and their behavioral expressions. In the classical psychometric conception of behavioral dispositions, the person's "true score" on the behavioral dimension, relative to normative levels in each situation, should remain constant. Because the deviations from the true score observed in each situation are assumed to reflect measurement noise or random fluctuation, if the data are standardized and rescaled relative to the typical level of behaviors expected in each situation, the "shape" of the profile should be random over multiple times and observations. The stable *if…then…* patterns that were found directly contradict this classic assumption, and reveal a second type of within-person consistency that needs to be assessed and explained in the search for personality invariance. There are clear and strong regularities in behavior that characterize each individual in the form of stable, distinctive patterns of variability, and they are found by incorporating the situation into the search for consistency, not by eliminating it. Both types of stability coexist as two aspects of the expression of personality coherence, reflected in the elevation (Type 1) and shape (Type 2) of behavioral signatures (e.g., Mischel et al., 2008). Each is informative and both need to be taken into account and predicted in a comprehensive theory of personality.

6.2. Resolving the personality paradox: Finding the locus of perceived consistency

One of the challenges raised by the 1968 book was the "personality paradox": If our behavior is highly variable across diverse situations, why do we intuitively perceive ourselves to be consistent in many characteristics? To address this question, we speculated that if behavioral signatures are meaningful reflections of personality invariance, they also should be linked to perceptions and intuitions about one's own consistency. To test this possibility we looked at the empirical relationship between the stability of *if…then…* signatures that characterize an individual in a particular domain of behavior and the self-perception of consistency. Specifically, we (Mischel & Shoda, 1995) used the data in the study of conscientiousness and sociability in college students (Mischel & Peake, 1982) to test the hypothesis that the intra-individual stability of the students' behavior signatures would predict, and underlie, their perceptions of their consistency.

The results were clear: Those who perceived themselves as consistent with regard to the trait did not show greater overall cross-situational consistency in their behavior than those who did not, as measured by their rank-order positions across different trait-relevant situations. But just as we expected, their perceptions of their own trait consistency were linked closely to the stability of their behavioral signatures for the trait-relevant behaviors. For people who perceived themselves as consistent in conscientiousness, the average *if…then…* signature stability correlation was near 0.5, whereas it was trivial for those who saw themselves as inconsistent (Mischel & Shoda, 1995). The intuition of consistency turned out to be neither paradoxical nor illusory: It is linked to behavioral consistency but not the kind the field had long tried to find. And not by trying to remove the situation but by incorporating it into the search for what is stable in personality, including our self-perceptions—a message that *Personality and Assessment* was intended to convey, but that those in the person-situation debate did not hear.

7. From *Personality and Assessment* to a Cognitive Affective Processing System (CAPS)

7.1. The factor analytic search for traits returns

In the early 1980s, while the Wediko studies were being conducted and analyzed, the factor analytic and psycho-lexical approach to traits vigorously and exuberantly resurfaced and promised to revitalize personality psychology. It was good to see that personality psychologists had agreed to develop and share a common tool in the systematic study of individual differences of what people are perceived "to be like," by themselves and others, on a small set of psycho-lexical dimensions. I and many others (e.g. Block, 1995; Epstein, 1994; Pervin, 1994), however, while appreciating that this approach has value for many important goals, worried about what felt like excessive exuberance leading to a preemptive narrowing of the conception of personality.

Was a model like the five factor theory, a conception like the Big Five, and a measurement tool like the NEO-R really going to being equated with the very definition of personality? Was this field ready to have a view of the human being confined to such characterizations with adjectives that categorize people so simplistically? Was personality going to be split from the study of the self, of individual differences in how people think, feel, and process information about the social world? Was it going to be divorced from how what we think, feel, and do connects to what is around us, and links to how our brains work, even to how our genes play out? Put simply, I feared that the human personality in our science was in danger of becoming headless, brainless, self-less, de-contextualized from the social world, lacking an unconscious, and missing

an emotional/motivational system (e.g., see Mischel & Shoda, 1994).

7.2. Two uses of traits

Discussing these concerns in a special 1994 issue of *Psychological Inquiry* devoted to these questions, Shoda and I distinguished the uses of traits proposed as descriptive constructs that serve to summarize overall behavior tendencies, in contrast to their use to explain how behavior is generated. If they are to be explanatory, one needs to examine how they exert their hypothesized effects (Mischel & Shoda, 1994). Personality psychologists seemed to be pursuing two different goals – taxonomic and explanatory – splitting personality psychology into two fields, each with its own goals and distinct construct systems (Cervone, 1991). Ideally, however, the same construct system that allows us to understand the psychology of the behavior-generating system also should enable a taxonomy that captures individual differences with respect to that system.

7.3. CAPS generates mean individual differences ***and*** *if...then...* signatures

Shoda and I designed CAPS in a way that bridges these two goals of personality psychology. As we noted in our opening paragraph, "When personality is conceptualized as a stable system that mediates how the individual selects, construes and processes social information and generates social behaviors, it becomes possible to account simultaneously for both the invariant qualities of the underlying personality and the predictable variability across situations in some of its characteristic behavioral expressions" (Mischel & Shoda, 1995, p. 246). We then spelled out in detail, and demonstrated, both with computer simulations and empirically, that CAPS in fact models the type of underlying structure that naturally generates *both* (1) stable and distinctive behavioral signatures of the sort we found in the Wediko camp research, and (2) the average differences overall between individuals on which traditional trait theories focus, and with which they mysteriously equate personality (Mischel & Shoda, 1995).

Of course, many other types of consistency can be distinguished and demonstrated, and may prove useful for diverse purposes (e.g., Fleeson & Noftle, 2008). But for Shoda and me, the goal was to make clear that a comprehensive model of personality has to capture *both* the stable within-person variance *and* the mean between person differences, and both were essential expressions of the same relatively stable underlying structure and organization. Given that this had long seemed obvious, it is difficult to understand a psychology of personality in the 1980s and 1990s that to some degree may still persist. It defines personality traits or dispositions – and even the construct of personality – in terms of mean between-person differences on psycho-lexical dimensions. It ignores the stable *if...then...* signatures that characterize what individuals distinctively think, feel, and do in different situations. The unfortunate side effect of this preemptive definition of what constitutes the essentials of personality is that it trivializes the stable within-person variance that marks the individual's distinctiveness, and that, in my view, personality psychology was founded to discover and understand.

We hoped that CAPS would not be seen as a Mischel-Shoda model but rather a general framework, an approach to personality, with no specific owners, and with an invitation to the field to join in applying it to the endless domains and questions that wait to be examined. CAPS was grounded in heavy empiricism and supported by Shoda's elegant computer simulations. But what mattered most to me is that CAPS seemed a step toward a view of the person that, in psychological terms and with scientific methods, could begin to capture the richness of human character, conveyed in the "rounded," multi-faceted complex humans found in the best literature, and in our own lives, but missed in the flat, simplistic, static portraits offered by the personality conceptions I reviewed in 1968.

7.4. Linking to cognitive science

We were influenced by the zeitgeist in psychology beginning in the late 1980s that suggested a more brain-like or neural network information-processing architecture for the general model we developed. The basic principle of operation in such architecture is not logical decisions, but more the pattern of associations that governs which mental representations become activated. A core idea guiding CAPS is that the pattern of associations, the network, among the cognitive-affective units within it, underlies how the person processes social information. To capture individual differences in personality we have to take account not just of the ease of accessibility or availability of different cognitive-affective mental representations (e.g., anxious readiness to perceive ambiguous events as implying personal rejection) but also, and most importantly, to assess how the different mental representations are interconnected and activate each other within the personality system. Note that this focus on interconnectedness in the CAPS organization is in striking contrast with the idea of a set of "independent dimensions" fundamental for factor-analytic models like the Big Five.

The CAPS model is idiographic in the sense that it is about each person's distinctive organization and how it is expressed in interactions with the social world. But while intended to capture the uniqueness of each personality, it is not limited to N = 1. It lends itself easily to the nomothetic study of types of people who share common *if... then...* behavioral signatures, and similar underlying processing dynamics, generated by similarities in their CAPS networks (for a comprehensive review of such efforts, see Mischel & Shoda, 2008; Mischel et al., 2008).

8. CAPS as a meta-theory for personality science: Leaving the circles open

Shoda and I debated whether to fill or leave empty the many circles that interconnect and interact within CAPS (as shown in Fig. 4 of Mischel & Shoda, 1995) before we sent our manuscript to *Psychological Review* as 1994 ended. These circles in CAPS represent the particular types of cognitive and affective mental representations that become activated in different individuals and personality types as they interact with different types of psychological situations in their social lives. We left the circles empty to underline that CAPS was designed as a general framework for building a more cumulative, integrative science of persons interacting dynamically with their socio-cultural psychological life situations, each reciprocally influencing the other. The open circles invite researchers to fill them as needed for their goals and substantive questions, regardless of the domain they study and the specific questions they want to pursue.

CAPS is a meta-theory for building theories to account for the individual's characteristic cognitive-affective processing dynamics and their behavioral expressions. The principles basic to the CAPS meta-theory suggest a view of the person not as an operationalization of variables, but rather as a distinctive social-cognitive-affective system. It is a system that dynamically interacts with situations and generates contextualized thoughts, feelings, and behaviors. In this framework, one route for pursuing generalizable knowledge is by enabling domain-specific theories that can identify types of individuals who are similar in their cognitive-affective social information processing system, as illustrated in the present issue in the examples discussed next.

8.1. Behavioral signatures as a royal road into underlying mechanisms

Just as Orom and Cervone got the message of the 1968 book as it was intended, so does Van Mechelen (2009) understand—and innovatively build on—the invitation Shoda and I sent in the 1995 paper to use CAPS as a meta-theory for personality science. Van Mechelen does this by seeking a deep understanding of individual differences in the structure of behavioral profiles across situations and using them as a royal road into their underlying mechanisms. He and his colleagues are going "beyond partial accounts of this structure in terms of cross-situational consistency coefficients and estimated percentages of variance accounted for by person-situation interactions" to empirically test a set of questions in search of a basic typology of individual differences structures.

The opposite of a fishing expedition, this work draws on, and rigorously examines, a wide range of promising concepts (e.g., synergistic interactions, ability accounts of personality dispositions, stress–diathesis models of psychopathology, individual differences in discriminative facility), and has consistently yielded important new findings and strategies that link the contextualized expressions of personality to their underlying psychological mechanisms. Van Mechelen's paper, and the research and novel methods he and his group have been generating for more than a decade, are grounds for great optimism about the future of personality science.

8.2. From behavioral signatures to the interpersonal circle

In a related vein, Fournier, Moskowitz, and Zuroff (2009) address the domains of situations and behavior that constitute the "inputs" and "outputs" of the cognitive-affective processing system, in order to integrate the CAPS framework with the interpersonal circle (e.g., Leary, 1957). Recognizing that the most important and salient features of psychological situations are the behaviors of the people with whom the individual interacts, these researchers use the interpersonal circle to conceptualize and characterize the behavior of individuals with their interaction partners, and to analyze the differences between individuals in the within-person structure and organization of their interpersonal signatures. This is certainly a valuable and promising direction to pursue, and their work substantially and creatively advances the goal of making personality science increasingly integrative and cumulative.

Their findings are clear and illuminating, but their discussion of the "Legacy of Personality and Assessment" raises a question that has long puzzled me: the definition of a trait or disposition. I worry that they reflect what has become a common but to me inexplicable practice in personality psychology. In their discussion, do Fournier and colleagues mean to equate and restrict the concept of "personality traits" or dispositions to the standing of individuals as reported on measures of five to seven lexical dimensions like those used by Goldberg (1993) and Saucier and Simonds (2006), or as aggregated on measures like those used by Epstein (1979, 1980) or Moskowitz (1982, 1988)? Do they want to make the concept of a personality trait or disposition preemptively unconditional and uncontextualized? Their own work, as they note, demonstrated that signatures are stable aspects of behavioral organization in day-to-day social interactions (Fournier et al., 2008). Are they not also trait or "dispositional" expressions just as much as aggregated average differences between people? I have no interest in semantic quibbles, and as long as contextualized dispositions, or "interpersonally situated persons," are studied and integrated into our conception of personality, it may not matter what's called a trait. But it's worth asking, once again, as I did earlier in this essay and often before: Should the definition of traits or dispositions exclude stable *if…then…* behavioral signatures? Or shall we broaden the concept of personality dispositions to integrate these relatively stable characteristics of human personality into a less preemptive conception that recognizes the intrinsic plasticity of dispositions as they are expressed in interactions with the individual's social, psychological, and biological world?

8.3. The if…then… relational self: Bridges to identity, transference and psychodynamics

In other innovative directions, Susan Andersen and her colleagues (e.g., Andersen & Thorpe, 2009) for many years have drawn with exceptional vision and originality on the concept of *if…then…*personality signatures and on the social cognitive approach, beginning with my 1968 book and its 1973 follow up, and now with the CAPS framework. With that framework they have built solid bridges that connect the self and personal identity to the social world, making the self literally relational and interpersonally "entangled." Andersen's bridges connect the self not only to the interpersonal world, but also to the individual's basic social cognitive and memory processes. This work illuminates how self-knowledge (self-schemas) and identity develop and how such information is organized in memory as cognitive–affective (mental and emotional) representations that are closely connected to representations about the significant other people in one's life (e.g., Andersen & Chen, 2002; Linville & Carlston, 1994), and contextually cued. Consequently, when the representation of a particular significant other is activated (e.g., you think about your mother), aspects of the person's own self-representation that have been mentally connected to that significant other also become activated mentally. These close connections in memory make the self intrinsically *relational* and interpersonal: In a sense, the significant others become part of one's personal identity (see also Mischel & Morf, 2003). Andersen and colleagues have gone on to build also a much-needed bridge to pschodynamic theories, showing in exquisite detail how the phenomena of transference, fundamental in those theories, can be understood in social cognitive terms.

The three research programs discussed in this section illustrate the broad scope, and diverse questions, now being productively pursued, and collectively helping to build an increasingly cumulative, integrative personality science. It is encouraging to see such progress. I regret that I cannot comment on so many other papers in this special issue that creatively connect their work to the CAPS framework and related findings. They enrich our understanding of person-situation interactions and integration, the value and uses of profile analysis and behavioral signatures, the nature and meaning of contextualized personality, and the potential uses of CAPS for better understanding of personality problems and disorders—and much more. While I cannot begin to do justice to them here, I do appreciate and applaud each of them.

9. CAPS and the "hot personality

A comprehensive framework for conceptualizing personality needs to encompass both its "hot" and its "cool" aspects, at the psychological level and in ways that link to what we are learning about the brain. With that goal, CAPS takes account of individual differences in emotions, including automatic, reflexive "hot" reactions whose mental representations may be fragments of feeling, as well as the slower, more reflective, cool, cognitive mental representations that characterize individuals.

9.1. Including affect in personality

To incorporate the crucial role of emotion into the personality system, CAPS distinguishes two subsystems: one a "hot" emotional "go" system, and the other a "cool" cognitive "know" system, and

they closely interact (Metcalfe & Mischel, 1999). The *hot emotional system* is specialized for quick emotional processing and responding based on unconditional or conditional trigger features, as when rejection sensitive people become abusive to their partners as automatic reactions to perceived rejection cues. Conceptualized as the basis of emotionality, fears as well as passions – impulsive and reflexive, initially controlled by innate releasing stimuli (and thus literally under "stimulus control"), characterized by fragments of feeling, it is fundamental for emotional (classical) conditioning, and it undermines efforts at self-control, reflective thought, and planning (Metcalfe & Mischel, 1999). In contrast, the *cool cognitive system* is specialized for complex spatio-temporal and episodic representation and thought. Because it is cognitive, it is emotionally neutral, contemplative, flexible, integrated, coherent, slower, strategic – the seat of self-regulation and self-control.

The balance between the hot and cool systems is determined by stress, developmental level, and the individual's self-regulatory dynamics. Both chronic and situational stress enhance the hot system and attenuate the cool system, but with increasing development and maturation, the cool system becomes more developed and active, and the power and pervasiveness of the hot system becomes attenuated. The interactions between these systems allow prediction and explanation of findings on diverse phenomena involving the interplay of emotion and cognition, including goal-directed delay of gratification and the operation of "willpower" and self-directed change (e.g., Kross, Mischel, & Shoda, in press). Thus strategic interventions may be used to influence the interaction of the hot and cool systems to overcome the power of stimulus control, as people attempt to purposefully prevent powerful stimuli from eliciting their impulsive, immediate responses and dispositional vulnerabilities.

9.2. The agentic, proactive self: Overcoming situational (stimulus) control with self-control

The trait psychology, the radical behaviorism, and the classic psychoanalytic approaches dominant when I wrote the 1968 book left human beings with virtually no agentic or proactive abilities. When the powerful influence of situations and context on human behavior became apparent, the endless arguments about the importance of the person *versus* the situation deflected attention from the question that, instead, did need to be asked by personality psychologists: How can individuals be agentic and proactive, able to change the power of "hot" situations and to influence their own fate? That question drove the research my students and I did on willpower and the mechanisms that enable it, as seen in research on the ability and willingness to resist immediate situational pressures, frustrations, and temptations for the sake of more valued but delayed outcomes and goals (e.g., Ayduk et al., 2000; Mischel, 1974; Mischel & Ayduk, 2004; Mischel, Shoda, & Rodriguez, 1989).

To show how changes in the meaning of situations by encoding them differently can empower people and enable them to have greater control over their impact, we conducted the experiments on delay of gratification (e.g., Mischel, 1974). For example, when four-year-olds are primed to focus on "hot" consummatory features of rewards – such as the pretzel's crunchy salty taste – they want them immediately and further delay to obtain them becomes extremely difficult. In contrast, priming a focus on the abstract features (e.g., how the pretzels are "like little logs") makes it easy for them to continue to wait in order to get them (e.g., Mischel et al., 1989). By influencing the stimuli-as-encoded, or by focusing attention on selected mental representations, individuals can exert some control over their own cognitions and affects. They can select, structure, influence, and reinterpret or cognitively and emotionally transform situations to which they are exposed, and thus are not merely passive victims of the situations or stimuli that are imposed on them (e.g., Eigsti et al., 2006; Kross, Ayduk, & Mischel, 2005; Mischel, 1996; Mischel, Cantor, & Feldman, 1996). They also can enhance their control over the environment through *if…then…*, implementation planning strategies for achieving even highly difficult and distal goals, as elaborated in the work of Gollwitzer and colleagues (e.g., Gollwitzer, 1996; Gollwitzer & Bargh, 1996).

Such mental operations also can be harnessed as effective interventions to deal with intense negative feelings and experiences (Kross et al., 2005). It should be clear, however, that while the strategies and skills that enable willpower may, like other competencies (e.g., bike-riding skills) endure, when and how they will be exercised is contextualized, and depends on a host of other variables and conditions. Familiar exemplars of individuals with high self-control skills that were practiced in extremely situation specific ways readily come to mind, including a former U.S. president, and more recently an ex-governor of New York, and need no elaboration here.

The French philosopher Descartes a few hundred years ago famously proclaimed "cogito ergo sum," I think, therefore I am, opening the way to what a few hundred years later became modern psychology. With what is now becoming known about personality, we can change his assertion to say: "I think, therefore I can change what I am. Because by changing how I think, I can change what I feel, do, and become."

10. The future of personality psychology?

10.1. Two contrasting paths

This special issue not only looks back at the past of personality psychology for forty years, but also reflects about its possible and needed future directions. With eyes on that future, David Funder's agenda (2009) for the "postwar era" and the "post-interactionist future" of personality psychology offers a sharp contrast to my own wish list. I have no agenda for how our field should unfold, but I can articulate some hopes for it; I have long held them, lived to see many of them begin to come true, including in this special issue, and remain an optimist, but for a vision virtually opposite to Funder's. He is, however, far from alone in his vision and hopes for the field, and a close look at them, and how they differ from mine, can identify two contrasting paths. They lead in opposite directions, making it important to be clear about the differences from the start.

Funder proposes that personality theory and research "be re-organized in terms of the *personality triad* of persons, behaviors, and situations… a first order of business is to understand the main effects of each element," and looking further ahead, "in the "post-interactionist future" he anticipates a search "towards understanding something deeper and more mysterious, the nature and workings of personality. What I mean is not the group of traits (or set of types) with which personality is usually described or through which it is usually assessed, *but the mysterious entity within the mind* [emphasis added] which is the source of all the behaviors and feelings that make up psychological life.... [in order] to move, ever-so-gradually, towards an understanding of this underlying entity" (Funder, 2009).

I am troubled by this vision of the future for personality psychology. To me it seems a direct route back into the homunculus, disconnected to the advances in psychological science for decades, and in neighboring sciences for more than a century. Even the term "post-interactionist future" implies a field that ultimately gets over, rather than more deeply embraces, the concept of interaction and its research implications, recognizing it as a *sine qua non* for an

empirical science. Funder offers a vision and agenda for personality psychology that would disconnect it from, rather than integrate it with, psychological science, and that may well be a route that others also choose to follow. There are many ways to study human nature, and they may be constructively and creatively pursued: I wish them well, but they are not high on my wish list for the field and for those who want it to become an increasingly integrative and cumulative science. If I have learned any lesson from my life as a scientist in psychology, it is that whatever way one chooses to define "personality" it surely is not a de-contextualized *"entity within the mind."*

11. Looking back and ahead

In 1968 *Personality and Assessment* concluded with this paragraph:

> "Global traits and states are excessively crude, gross units to encompass adequately the extraordinary complexity and subtlety of the discriminations that people constantly make. . . . The traditional trait-state conceptualizations of personality, while often paying lip service to [peoples'] complexity and to the uniqueness of each person, in fact lead to a grossly oversimplified view that misses both the richness and the uniqueness of individual lives . . . [and their] extraordinary adaptiveness and capacities for discrimination, awareness, and self- regulation" (Mischel, 1968, p. 301).

When I wrote the 1968 book, the limitations of traditional trait-state approaches to personality and assessment were becoming evident but the alternatives had barely begun to emerge. Thirty years earlier, when Gordon Allport founded the field in American psychology departments, it was intended to ask the deepest questions about human nature, seeking to capture the unique patterning and organization of the functioning, distinctive, and indeed unique, "whole person" (Allport, 1937; Allport, 1961). In 1937 Allport wanted to divorce the new discipline of personality psychology from the rest of psychology for good reason. American academic psychology was ruled by early orthodox behaviorism that treated anything that went on inside the head as fictions not fit for scientific discussion. But times have changed: There's been a cognitive revolution and now a mind-brain-genetics revolution re-animating psychology and creating a vibrant psychological science. Connecting to these developments offers personality psychology opportunities to become the hub for integrating basic findings and general principles revealed by work at different levels of analysis within the larger science, as they speak to the coherence and organization of the individual.

11.1. Building a cumulative science of the individual

Such integrative efforts can build on discoveries that have transformed both personality psychology and the larger psychological science in the last few decades (e.g., reviewed in Cervone & Mischel, 2002; Mischel & Shoda, 2008). The groundwork for a science of persons is extremely promising (e.g., Cervone & Mischel, 2002; Shoda et al., 2007) and, as this special issue illustrates, it is energetically under construction. Especially noteworthy is that these developments bridge the classic partitioning most unnatural and destructive to the building of a cumulative science of the individual—the one that splits the person apart from the situation, treating each as an independent cause of behavior. At the time of the "person *versus* situation" debate, this splitting (amazingly) threatened to make personality the discipline that studies people apart from situations, and social psychology the unfriendly neighbor that studies situations apart from people.

11.2. Lessons from the new genetics

The fundamental problem with this way of thinking is vividly evident when we consider revolutionary discoveries coming from the "new genetics." They are sufficiently important for "new genetics" to be the focus for the 2009 meetings of the Association for Psychological Science (APS) in the Presidential Symposium. As Frances Champagne, a leader in the new genetics research puts it, findings from research on epigenetics make "the consideration of the 'main effects' of genes or environment inappropriate," because "genes and environments are always interacting and it would be impossible to consider one without the other" (Champagne, in press). Champagne likens DNA to books in the library, and highlights the fact that what it does completely depends on the factors that affect how, and whether or not, it is "read":

> "DNA sits in our cells and waits to be read. The reading or so called "expression" of DNA can, like the books in our library, have limitless consequences. However, without the active process that triggers "expression," this potential may never be realized. And what, you may well ask, triggers "expression"? In fact, the environment around the DNA contains those critical factors that make it possible to read the DNA and, in essence, make it do something. And so we return to the concept that genetic variation must always be considered within a specific environmental context."

Similarly, Krueger and Johnson (2008) point out "we cannot expect that the effects of any specific genes are necessarily limited to a specific personality trait" because "we must expect that the effects of specific genes may be contingent on other factors such as environmental circumstances or the presence of other genes" (p. 304). Just as it makes no sense to talk about the functions of a gene without its specific context (different context, different function; no context, no function), it also may be time to stop thinking about personality traits as if they were autonomous entities whose main effects can be isolated.

It is encouraging to see contributors to this Special Issue who embraced a central theme in the 1968 book, namely, that an understanding of personality requires an understanding of how different people distinctively interpret situations and process social information about themselves and their social worlds in ways that generate their characteristic patterns of interactions with those situations. For roughly a half-century, the deciphering of these processes has been facilitated by the rapidly advancing tools of cognitive science and the neurosciences. Findings obtained in these fields, as well as in the new genetics, provide a foundation upon which personality psychologists of today can build an increasingly integrative, cumulative science of the individual. When Allport founded personality psychology in 1937, he was wise to disconnect it from the rest of psychological science, given what it was then. But that time, and that old science, is long behind us. By connecting with the emerging new psychological science, personality psychology in the future can become a central hub within it.

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