

Personality Development and Organizational Behavior

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Abstract

This chapter provides an overview of a new theoretical framework that serves to integrate personality psychology and other fields, such as organizational behavior. The first section describes a structural model of personality that incorporates traits, motives, abilities, and narratives, with social roles. The second section describes basic patterns of continuity and change in personality and how this might be relevant to organizational behavior. The third section describes the ASTMA model of person-organization transaction (attraction, selection, transformation, manipulation, & attrition), which describes the primary transactions between personality and organizational experiences across the life course. The goal for the chapter is to build a bridge between modern personality psychology and organizational behavior, such that the two fields can better inform one another.

Personality Development and Organizational Behavior

The goal of this chapter is to present a new model of personality psychology. This new model has grown out of a program of research in which both persons and organizations have been studied over long periods of time (Roberts, 1997; Roberts & Chapman, 2000; Roberts, Caspi, & Moffitt, 2003; Roberts & Robins, 2004). What is clear in reviewing the findings from these studies is that existing models of personality, which tend to be dispersive and nonintegrative (Mayer, 2005), are inadequate for understanding personality, personality development, and the interface between personality and organizations. My hope is that this model can provide a focal point through which a more fruitful and productive integration can be made between personality psychology and organizational behavior.

The fields of personality psychology and organizational behavior have had an ambivalent relationship over the last several decades. On the positive side, there has been a resurgence of research on the role personality plays in affecting organizational outcomes, such as job performance (Hogan & Holland, 2003), job satisfaction (Judge, Heller, & Mount, 2002), leadership (Judge, Bono, Ilies, & Gerhardt, 2002), and PO Fit (Roberts & Robins, 2004). On the other hand, there is an inherent tension between personality psychology and the study of organizational behavior, as the later has focused more on situational influences on job attitudes and behaviors (e.g., Mowday & Sutton, 1993). This focus on situational influences is clearly appropriate as organizational researchers are often motivated to provide concrete advice to managers on how to improve their organizations. Intrinsic to the typical approach to organizational behavior is the assumption that thoughts, feelings, and behaviors are changeable and can be shaped or created by organizational experiences alone. A position which, at first blush, appears to conflict with the typical way personality is conceptualized in organizational

studies—as personality traits. Personality traits are the relatively enduring patterns of thoughts, feelings, and behaviors that differentiate individuals from one another. The idea that traits cause organizational behaviors has in the past been a point of controversy (Davis-Blake, & Pfeffer, 1989), primarily because it is difficult to reconcile behavior being changeable by organizational factors and simultaneously caused by stable individual differences.

The tension between personality psychology and the field of organizational behavior is symptomatic of the broader person-situation debate that has beleaguered psychology intermittently for the last 100 years. The most recent incarnation, which raged in the 1960s and 1970s, played a significant role in shaping both personality psychology and organizational behavior. In personality psychology, the study of traits almost disappeared, as researchers and academic institutions responded to Mischel's (1968) critique by emphasizing the importance of social situations and examining alternative units of analysis to traits¹. Similarly, the field of organizational behavior followed the zeitgeist of the times and de-emphasized the importance of stable individual differences in organizational life (see Staw & Cohen-Charash, 2005 for a review).

The person-situation debate was in many ways misguided. It was misguided because in hindsight, all of the arguments made against personality traits were either factually or interpretively incorrect (Hogan & Roberts, 2000; Roberts, 2005). For example, Mischel (1968) raised four critical points: a) traits had limited utility in predicting behavior (i.e., the infamous “personality coefficient” of .3); b) Stability was a fiction in the mind of the observer; c) behavior was not stable across situations; and d) if there is stability it is attributable to the situation, not the person.

¹ At U.C. Berkeley in the late 80s the term “trait” was off limits. One could study “folk concepts”, “dispositions”, or “personal resources”, but not traits, despite the fact that these concepts, when operationalized, are indistinguishable from traits.

In the intervening decades, research has shown that each of these arguments is false or misleading. First, there is no such thing as a “personality coefficient.” Rather, there is the “psychological coefficient.” The large majority of effect sizes in psychology are between .1 and .3 on a correlational scale (Meyer et al., 2001). It turns out that there is nothing unique about the effect sizes in personality psychology. Moreover, the vaunted “power of the situation” was also overstated. When uninformative test statistics (e.g., F and t-tests) are transformed into effect sizes, situational manipulations were found to be no bigger than the effects of personality traits (Funder & Ozer, 1983). In addition, well-run studies in which different people rated the same person across time and age showed that stable individual differences did exist (Block, 1993). Therefore, personality was not a semantic fiction of our busy minds. Also, the original estimates of behavioral stability across situations were found to be underestimates (see Borkenau, P., Mauer, N., Riemann, R., Spinath, F. M., Angleitner, 2004 for evidence and insights as to why). Nonetheless, it should be noted that no personality psychologist other than Mischel ever went on record claiming that the cross-situational consistency of behavior should be high. This was a straw man from the start and immaterial to the viability of the personality trait construct (see Roberts & Pomerantz, 2004). Finally, longitudinal research has shown that stable environments are not always associated with stability (e.g., Roberts & Robins, 2004), and that genetic factors also play a significant role in personality trait stability (McGue, Bacon, & Lykken, 1993). In sum, all of the primary criticisms of personality psychology that derive from the person-situation debate have been refuted.

At this point in history the person-situation debate is best considered dead, not because it was ever successfully resolved, but most likely because young scholars have grown tired of the bickering of their elders. The present situation can be best described as a sleepy *détente* rather

than a full fledged resolution. This leaves the field of personality psychology at a cross-road. Trait psychology has made a successful return, which is, in many ways, the legacy of the field of organizational behavior from which many of the most impressive tests of the predictive validity of personality traits have come (Judge, et al, 1999). Social cognitive approaches to personality have many adherents and also constitute a coherent and viable model of individual differences (Cervone & Shoda, 1999). Situationism has not gone away, as it is clear that situations are just as important as personality in determining behavior and personality. Nonetheless, adherents to the different camps tend to focus on research that substantiates their worldview rather than searching for a true reconciliation (e.g., Cervone, Shadell, & Jencius, 2001, Lewis, 1999, and McCrae, 2004).

What is needed at this juncture is a model of personality that can achieve several goals at once. First, this new model must successfully integrate trait and social cognitive approaches to personality. Second, it needs to take situations seriously and fully integrate them into a conceptualization of the person and their life context. Third, it must account for the wealth of findings gathered over the last few decades on the consistency and changeability of personality over time and the effect of contexts on patterns of continuity and change. If successful, this model can serve as a fulcrum for a more successful integration of personality psychology with other fields, such as organizational behavior.

My goal for this chapter is to provide an overview of a model of personality that I believe achieves all of these goals. First, I will describe a new theoretical framework that serves to integrate personality psychology and other fields, such as organizational behavior. Second, I will review what we know about personality continuity and change over the life course. In this section, I will describe the relationship between personality traits and organizational experiences

and how these relationships guide personality development over time. In the context of this review, I will introduce a new model of the ways in which people can interact with organizations over time and how these processes can affect both the organization and the individual. My hope is to build a bridge between modern personality psychology and organizational behavior, such that the two fields can better inform one another.

A Neosocioanalytic Framework for Personality Psychology

Interestingly, much of the work facilitating the re-emergence of personality psychology has come from organizational psychology (e.g., Barrick & Mount, 1991; Hough & Ones, 2002; Staw & Ross, 1985). However, the version of personality psychology adopted in organizational psychology has proven to be overly static. Personality is conceptualized as traits, and traits are typically conceptualized as causal forces used to predict outcomes and are not themselves subject to change. If combined with situations, they are typically seen to interact with situational contingencies (e.g., Porter, Hollenbeck, Ilgen, Ellis, West, & Moon, 2003). Unfortunately, this take on personality psychology ignores the fact that personality traits have to develop and can change, even in adulthood (Roberts, Walton, & Viechtbauer, 2006). It is this fact that makes the interface of personality psychology and organizational behavior so interesting, as trait models that do not incorporate the transactions between personality and situation over time fail to account for conceptual or empirical findings of personality development (Fraley & Roberts, 2005).

In order to better understand how personality transacts with situations over time, a framework is needed that can address the tension between continuity and change in behavior and what role situations play in shaping behavior and thus personality. The following theoretical model, described as the neo-socioanalytic model of personality is an attempt to provide an

integrative framework for personality psychology that has been explicated in several other outlets (Roberts & Caspi, 2003; Roberts, Harms, Smith, Wood, & Webb, 2006; Roberts & Wood, 2006). It includes a reorganization of the basic units of analysis, a description of the typical patterns of continuity and change in personality over time, and the types of transactions found between persons and organizations. First, we will discuss the units of analysis in personality psychology.

The Units of Analysis

Figure 1 depicts the primary domains in the neo-socioanalytic theory. The first thing to note about Figure 1 is that there are four “units of analysis” or domains that make up the core of personality: traits, values/motives, abilities, and narratives. These four domains are intended to subsume most of the important categories of individual differences.

The first domain, traits, is defined as the enduring patterns of thoughts, feelings, and behaviors that people exhibit. Much attention has been dedicated to finding a working taxonomy of traits, and many accept the Big Five, Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to experience, as a minimal number of domains (Goldberg, 1993). Recent research has begun to show that the rush to accept the Big Five may be premature. The empirical foundation of the Big Five was based primarily on western samples. And, although the Big Five structure appears to replicate across many different cultures (McCrae & Costa, 1997), this finding is inconsequential because it was based on a measure designed only to assess the Big Five (e.g., the NEO-PI-R, Costa & McCrae, 1994). Alternatively, a meticulous examination of the structure of natural language lexicons that derive from many different cultures show that the Big Six (Ashton, Lee, Perugini, Szarota, de Vries, Blas, Boies, & De Raad,

2004) or Multi-Language Seven (ML7; Saucier, 2003), may be better representations of the trait domain.

In terms of the Big Five, the Big Six or ML7 are not radical alternatives. Rather, these systems add one or two dimensions to the Big Five and, most importantly, shift the meaning of the Big Five slightly, but significantly. For example, in these systems agreeableness contrasts warmth and gentleness with hostility and aggressiveness, whereas in the typical Big Five System, hostility and aggressiveness are found on the negative end of emotional stability. Emotional stability also changes and contrasts insecurity and anxiousness with toughness and bravery. The latter are not part of emotional stability in the Big Five. Added to the Big Five are a positive evaluation or honesty factor (Ashton et al, 2004) and a global negative evaluation. Both of these dimensions would have obvious application to organizational issues, such as counterproductive work behaviors, and performance feedback systems. Also, these additional dimensions bring two evaluative dimensions that are missing to the Big Five system. Finally, in contrast to the Big Five, the Big Six and ML-7 appear to replicate more readily across different cultures and emerge in both emic and etic approaches to scale development.

Values and motives constitute the second domain of personality. These dimensions reflect all of the things that people feel are desirable—that is, what people want to do or would like to have in their life. Thus, this category includes the classic notion of motives and needs (e.g., Murray, 1938), in addition to values, interests, preferences, and goals. This category is explicitly hierarchical, and the structure of goals and motives has been discussed by numerous researchers (Austin & Vancouver, 1996; Emmons, 1986). The hierarchy described here is unlike that proposed by Maslow (1968), in that it is one of conceptual breadth, rather than one of priorities. Maslow's theory, one of the foundations of the humanistic tradition in psychology and

in organizational behavior, posits that people move systematically from lower level needs, such as the need for safety, to higher level needs, such as the need for self-actualization. Ostensibly people attempt to satisfy lower-order needs before moving on to higher-order needs. Maslow's theory has served as the basis for many influential perspectives in personality psychology and organizational behavior, presumably because of how optimistic and hopeful Maslow's version of human nature was in contrast to those found in psychoanalytic theory or behaviorism.

Unfortunately, empirical tests of Maslow's theory have been equivocal at best, with many finding little support for the hierarchy (Wahba & Bridwell, 1976). This should not have been a great surprise, as reading Maslow's original writings (e.g., Maslow, 1968) it becomes clear that the need hierarchy is more of a prescription for human nature than a description. It represents Maslow's vision of what humans could be rather than how they are.

In contrast, the hierarchy proposed here is agnostic when it comes to the preference for which need, goal, or motive should have priority, and utilizes hierarchical structure to indicate that some motivational components are broader and more inclusive than narrower components. Furthermore, if there are two thematically dominant needs they are not need for safety or self-actualization but rather the need for status and the need for belonging (Hogan, 1982). Status motives subsume the desires for social status, money, fame, and social regard. Belongingness motives subsume desires to have a family, close friendships, and some form of identification with a social group or groups (Baumeister & Leary, 1995). Although clearly insufficient to capture the entire spectrum of values/motivation, it is also clear that these two dimensions show up across implicit motives (e.g. nPower, nAffiliation), explicit goals (Roberts & Robins, 2000), and values (Schwartz, 1992), and work values (Hofstede, Bond, & Luk, 1993). These motives are dominant over other needs because if satisfied, they provide the more basic needs. If one has

a group to belong to and a position of importance in that community, then basic needs such as for food and safety are provided for. If a person lacks a supporting group, be it a family or community, then basic needs are much more difficult to come by.

The third domain reflects abilities and the hierarchical models identified by what people can do (Lubinski, 2000). Although still somewhat controversial, the hierarchical model of *g*, which subsumes verbal, quantitative, and spatial intelligence, is a widely accepted model that encompasses the majority of the domains of existing intelligence measures (Gray & Thompson, 2004). The hierarchical model of *g* clearly does not capture the full range of ability variables that are important for organizational functioning. For example, Ackerman's PPIK theory, integrates intelligence-as-process (e.g., *g*), *personality*, *interest*, and intelligence-as-knowledge (Ackerman & Hegested, 1997). Tests of the PPIK model have shown that domain knowledge, though related to general intelligence, is also distinct (Rolfhus & Ackerman, 1999). Thus, people can develop domain-based abilities that are distinct from their general intelligence. This should be highly relevant to organizational studies, as expertise in specific domains can be shaped through training and practice.

The final domain focuses on the devices people employ to tell the stories and narratives they use to understand themselves and their environments (McAdams, 1993). A critical point to consider in any model of personality is that while individuals can be classified in terms of traits, goals, and abilities, they often (if not generally) communicate information about themselves quite differently than suggested by nomothetic classification systems. One common strategy is the use of illustrative stories (McAdams, 1993) or scripts (de St. Aubin, 1999). People find it very easy to tell stories about themselves, others, and their environments. These narratives, in turn, help people create meaning and purpose in their lives and predictability in the events they

observe and experience, and provide explanations of how people have come to be in their present circumstances.

At first blush, narratives may appear to be superfluous fluff compared to traits, motives, and abilities, but this conclusion would be naive. First, the information gleaned from narratives is simply unavailable from the other approaches. The particular details about a person's life, reflected for example in concepts such as biodata in job interviews, have unknown ramifications for a person's experiences, accomplishments, and self-evaluations. For example, narratives of personal growth predict well-being above and beyond personality traits (Bauer & McAdams, 2004), suggesting that narrative information provides unique information in the prediction of self-evaluations.

Another reason not to dismiss the narrative component of personality is that it provides an avenue to successfully incorporate information at the level of an individual life. This is directly analogous to case study approaches in other fields, including organizational behavior. For example, case studies of organizational practices have illuminated many fundamental organizational principles and practices, including how organizations create meaning for their employees (Pratt, 2000). This type of information can and is used to create new understanding of human nature and organizations, to test theories, and to simply add new information to our science. Narrative information provides a direct conduit to the phenomenology of everyday life, which is simply not captured in other approaches to personality assessment.

The components of personality are both manifested and organized around two psychological and methodological entities: identity (or self-reports) and reputation (observer reports). From a methodological perspective, there are two privileged, yet flawed ways to access information about people—what they say about themselves and what others say about them.

Personality inventories represent typical self-report methods. This category also includes basic trait ratings, self-concept measures, such as self-esteem, as well as measures of goals and values. Observer methods encompass observer ratings of behavior, projective tests, implicit measures, and even physiological tests. Typically, self-reports are derogated for being biased by response sets, such as social desirability responding (cf. Piedmont et al, 2000). Observer methods are afforded greater respect within personality psychology, but in I/O psychology where they are used more often, it is widely known that they suffer from biases such as halo error (Viswesvaran, Schmidt, & Ones, 2005). When researchers bother to assess both self-reports and observer ratings of personality, they often find that both perspectives predict organizational outcomes (Mount, Barrick, & Strauss, 1994).

These two methods of assessment correspond to two global psychological constructs, identity and reputation, which have meaning above and beyond the methods themselves. Identity reflects the sum total of opinions that are cognitively available to a person across the four units of analysis described above. The first domain of these cognitions would be the content of identity—whether a person considers themselves shy or creative, for example. Identity also pertains to the meta-cognitive perception of those same self-perceptions. Specifically, people can simultaneously see themselves as “outgoing” and a “carpenter” (content) and feel more or less confident and invested (meta perception) in those self-perceptions.

This conceptualization of identity is both consistent with and different from classic social psychological perspectives on social identity (e.g., Stryker & Serpe, 1982). Similar to social identity theory, it is assumed that the content of identity is shaped by social interactions and that these interactions are organized according to specific social categories, such as roles (Tajfel & Turner, 1979). Clearly, organizations provide a context in which work roles are structured and

defined. Role experiences should affect people's experiences and thus their self-perceptions (Salancik & Pfeffer, 1978). For example, organizations can affect the symbols used in work roles and their significance, which in turn should affect the content of identity (Pratt & Rafaeli, 1997). Similarly, receiving different versions of the symbolic white coat is used to mark status transitions in the process of moving from a medical student to a full-fledged doctor. Presumably, receiving these symbols facilitates shifts in a medical student's identity.

Where the Neo-socioanalytic conceptualization of identity adds to the conceptualization offered by social identity theory is in the assumption that traits also cause the content of identity. On its face, this is not a radical departure from social identity theory. For example, there is no reason why a person cannot retain an identity over time in a dispositional fashion. People may come to see themselves as a "tough worker" because of experiencing a highly competitive work environment. This new self-perception may perpetuate simply because the person remains in the environment. Nonetheless, we would propose that something more than social context is needed to understand a person's experience at work and that internal, temperament factors are additional influences on variation in social identity. Specifically, underlying trait-like patterns derive in part from genetic and physiological factors that contribute to continuity over time (Johnson, McGue, & Krueger, 2005). These underlying physiological systems may provide a strong countervailing force against the influence of the environment. For example, a dispositionally inhibited, or shy individual, may always have a readiness to respond to social interactions with reticence, despite social pressures to do otherwise.

A second feature of the Neo-socioanalytic framework that is distinct from most personality, social cognitive, and social identity theories is the inclusion of reputation. Reputation is the perspective on the part of others about a person's traits, motives, abilities, and

narratives. Consistent with the “looking glass self,” reputation is conceptualized as affecting identity. People will come to see themselves differently depending on how other people define them. On the other hand, underlying dispositions can affect reputation directly without being mediated through identity. This reflects the fact that people are not always aware of their own behavior and that others may see patterns in their behavior that they do not. Given the arrow pointing from identity to reputation, we also propose that people actively shape their reputation. It is a fact of social interaction that people do not share all of their self-perceptions and actively attempt to persuade others of their desirable qualities (Goffman, 1959). Reputations are clearly important from an organizational perspective. People are hired, fired, promoted and demoted, in part, because of their reputation. Presumably, the better a person is at managing their reputation, the better they should do in an organization.

Social roles also play a prominent function in our model and serve to explicitly incorporate the social environment (Hogan & Roberts, 2000). Social roles tend to fall in two broad domains that correspond closely to the two primary motives highlighted above: Status and belongingness roles. Status roles encompass work and social- position roles, such as being a CEO, supervisor, PTA president, and so forth. Belongingness roles encompass friendship, family, and community roles, such as being a father, mother, and friend. Although, work is often associated with status hierarchies, both status and belongingness roles can be found within work. Clearly, the person who aspires for and achieves the CEO position has acquired a high status role. On the other hand, many friendships are made and fostered through work and serve to provide meaning and support even within a network of relationships in which status is so salient.

Integrating stable dispositions and variable behaviors, thoughts, and feelings

One of the challenges for this framework is to successfully address the question of how behaviors can change from situation to situation, but still be trait-like. It is useful to distill these issues through a hierarchical structure (Roberts & Pomerantz, 2004). Specifically personality constructs and situational constructs can be ordered from broad to narrow (See Figure 2). For example, on the person side of the equation, traits are often considered broad constructs because they entail aggregation of thoughts, feelings, and behaviors across many situations. Implicit in this idea is that the trait is a broader concept than specific behaviors, thoughts, and feelings. That is, from the top down, one can see that behavior is a reflection of the trait. From the bottom up, one can see the behavior as a constituent element of the superordinate trait. What is most important about making the hierarchy explicit is that it clearly shows that traits are not isomorphic with thoughts, feelings, and behaviors. Traits reflect the common variance among representative thoughts, feelings, and behaviors. In turn, thoughts, feelings, and behaviors are most likely overdetermined. That is, many factors, including traits, motives, and the situation may influence whether thoughts, feelings, and behaviors happen.

The classic form of the trait hierarchy may be traced to Eysenck's (1970) multi-level personality structure, where supertraits (e.g., Extraversion) can be decomposed into intercorrelated but conceptually distinct narrower traits (e.g. Sociability, Activity, Excitability). These narrower traits are made up of habits, which in turn are related to "stimulus-response" patterns, or what might be described as the behaviors manifested in specific situations. What is interesting about the classic trait hierarchy is the unwillingness to discuss the role of context in the definition of the hierarchy. For example, the differences between extraversion and its constituent elements of sociability and dominance is context. Extraversion is typically a generic term applying to most if not all social situations and whether a person acts in an agentic fashion

in these situations. On the other hand, sociability is particular to benign social settings and dominance is particular to power situations. Individual differences in a person's level of gregariousness (sociability) can be best seen in informal social settings, like in a group of friends or at a party. Individual differences in dominance can be best seen in social settings where power is being exchanged. For example, when a person asserts themselves at a work meeting in which their performance will dictate their future pay and position, this is an act of dominance. Of course, people can act sociable in power settings and act dominant in social settings, but these actions are less common and may even be punished by one's social group—no one likes a person who cannot turn it off when he gets to the bar.

As an alternative to the classic trait hierarchy, we recently proposed the Personality Role-Identity Structural Model (PRISM; Wood & Roberts, 2006). The PRISM largely parallels the structure of a trait hierarchy, in that the PRISM can be thought of as a hierarchy with multiple levels of varying breadth: (a) the *general identity*, representing how the person sees oneself in general, (b) *role identities*, which represent perceptions of narrower, context-specific dispositions (e.g., “how I see myself as a worker”), (c) aggregated role outcomes, such as general thoughts, feelings, and behavioral patterns occurring within to the role, and (d) single occurrences of outcomes occurring in a given role. Research has shown repeatedly that people see systematic differences in themselves across various roles (Donahue & Harrary, 1998; Roberts & Donahue, 1994; Wood & Roberts, 2006) and that using lower-order constructs, like role-identities improves predictive validity (Roberts & Donahue, 1994).

As noted earlier in this chapter, and as shown in Figure 2, each of the major domains of personality and social situations can be organized hierarchically. For example, values may be seen as a broad manifestation of motives, as they represent relatively decontextualized principles

of what is deemed desirable. Strivings, which tend to be concrete manifestations of broad principles enacted in a short time frame, are excellent examples of mid-level constructs (Emmons, 1986). At the lowest level would be goals for actions in the present situation (Ford & Nichols, 1987). Similar hierarchical organizations of abilities and narratives are also possible. For example, the act of telling stories is often constrained to specific episodes and is also tailored to one's audience (Fiese, Hooker, Kotary, Schwagler, & Rimmer, 1995)².

Unlike many theories of personality, we also view the situation hierarchically. Broad situations are represented with concepts such as culture in a country or social climate in a community (Bronfenbrenner, 1979). Medium level situational factors can be represented as role-based phenomena, such as role expectations, which are the demands others have for how we should act in certain social roles. At the lowest level of breadth, we would find the concrete discriminative stimuli, rewards, or punishers which shape behavior.

How does this hierarchical elaboration address the apparent contradiction of changing behavior and stable dispositions? Most situationally driven research, such as that focusing on the effect of experimental manipulations, is focused at the lower level of abstraction on specific types of thoughts, feelings, or behaviors (Roberts & Pomerantz, 2004). Researchers studying personality traits, on the other hand, focus on aggregations of thoughts, feelings, and behaviors across many situations. This is one reason why trait psychologists and those who study the effect of experiments appear to talk past one another. They study similar phenomena at different levels of abstraction. Specifically, behaviors are both outcomes of traits and causes of traits. Moreover, the effect of the situation on a trait, which directly impacts behavior, is mediated by one or more layers of the hierarchy. Thus, the effect of a situation on a trait is filtered and

² It is also assumed that all of the units of analysis are interrelated. These paths are not included in Figure 2 for aesthetic reasons only.

diluted. A simple change in behavior will not result in change to a trait, which reflects a broad aggregation of behaviors across many situations. Rather, a change in behavior will register like a rock thrown into a pond. The changing behavior may cause a ripple in the surface of the pond, but is unlikely to affect the depth of the water. Likewise, the effect of a trait on a situationally constrained behavior is filtered through multiple levels and therefore its effect is watered down. Because of the multiple levels of breadth that a trait must move through, it is reasonable to assume that the relationship between behavior and a disposition should be modest at best.

Take Figure 3 as an example. Figure 3 shows a hypothetical scenario detailing the relationship between work experiences and the trait of conscientiousness (Roberts, 2006). In this example, the woman has taken her first job right out of high school or college. The new work role brings with it a press to work harder than she did in school. These changes in behavior may be noted and integrated into her identity, but these changes would not necessarily affect the inferences associated with the trait of conscientiousness. Rather, they would first affect the role identity of conscientiousness. That is, this new employee may, after a few weeks of demanding work and active effort to match these demands, come to see herself as a “hard worker” but not necessarily as “industrious” (Wood & Roberts, 2006). Over time, with more consistent experiences, a person may internalize and generalize these lower level attributions into something broader, like a dispositional inference. For example, observing oneself doing something different is one of the key mechanisms of the learning generalization hypothesis, in which it is proposed that work experiences are internalized and then generalized to other domains (Kohn & Schooler, 1978). For example, people may see themselves acting more intellectual at work, and by doing so come to see themselves as more intellectual, and then generalize this change by adopted more intellectually engaging hobbies, such as chess.

This integration of the topographical neo-socioanalytic model and the hierarchical model in Figure 2 also helps to identify many of the mechanisms responsible for personality change that we have outlined elsewhere (Caspi & Roberts, 1999; Roberts & Caspi, 2003; Roberts & Wood, 2006). For example, role expectations are embedded in the roles that people acquire. They act as discriminative stimuli, signaling to people what behaviors are called for in specific contexts. Presumably, acting in accordance with role expectations can lead to change in personality (Roberts, Wood, & Smith, 2005). Feedback mechanisms in which people are told how to change or how they are acting also come as part of a role. For example, supervisors provide concrete messages concerning which behaviors are acceptable and unacceptable. Presumably, supervisors also have the power to administer rewards for certain behaviors (raises), and punishment for other behaviors (demotions & firings). One of the key mediators of the influence of expectations and contingencies on change in personality may be the extent to which the job and the people communicating expectations and contingencies are well-liked (Roberts & Wood, 2006). For example, children tend to respond more willingly to parental expectations for probity when the child has a more positive relationship with the parent (Kochanska & Murray, 2000). Likewise, the ability of supervisors to influence the long term behavior patterns of their protégés may be dependent on whether they are liked by their subordinates. Similarly, peers may have more power to influence their friends if they are well liked.

Countering these change processes are mechanisms on the person side of the equation that might inoculate or nullify the press to change. For example, to the extent that top-down heuristic processing takes place, certain people may not notice or acknowledge the press to change because they will lack the schemas to register the press (Roberts & Caspi, 2003). Alternatively, people may use more active means to avoid changing by avoiding the situation, or

using more strategic information processing mechanisms, like undermining the change message by painting the person pressing for change as unskilled or ignorant. Of course, more psychodynamic processes are possible as people may simply deny that the press for change or project the press back to the messenger (see Roberts & Caspi, 2003 & Roberts & Wood, 2006, for a full description of these mechanisms)

In summary, the neo-socioanalytic framework, brings together the full range of individual differences and provides a clear conduit for understanding how social contexts will affect those dispositions. In addition, one can locate many of the core issues within OB in the interface between role and identity. Organizational climate dictates the nature of the roles experienced at work (Haslam, Postmes, & Ellemers, 2003). Job design reflects how one's work role is configured by the organization (Ilgen & Hollenbeck, 1991). Person-organization fit reflects how well one's attributes fit with the role defined by the organization (Chatman, 1991). Of course, leadership is a role. Probably more relevant to most people is the role of follower—a relatively understudied phenomena. Needless to say, this model affords us the opportunity to see a constructive interface between the two fields. Based on this conceptualization, personality affects organizational phenomena and is affected by organizational experiences. If this is the case, we should see systematic relationships between personality and organizational factors. For example, as we will see below, we should find that certain personality traits will affect organizational outcomes and that organizational experiences should be related to changes in personality traits.

Personality Development in the Neo-Socioanalytic Framework

Before we embark on a description of the relations between people and organizations it is important to understand how people develop in terms of personality traits across adulthood. If

there is no continuity in personality traits, then it would be clear that the relationship would be a one-way street from organization to person. If there is no change in personality, then we would expect the opposite—personality should only affect organizational experiences. Understanding the overall patterns of continuity and change in personality provides a foundation on which the subsequent study of person-environment transactions can be understood.

Continuity is most often indexed by correlations between personality scores across two points in time (i.e., test-retest correlations). These differential, or rank-order stability correlations, reflect the degree to which the relative ordering of individuals on a given trait is maintained over time. Our recent meta-analysis of the rank-order stability of personality (organized according to the Five-Factor Model) revealed six major conclusions (Roberts & DelVecchio, 2000): Test-retest correlations over time (a) are moderate in magnitude, even from childhood to early adulthood. (b) Rank-order stability increases with age. Test-retest correlations (unadjusted for measurement error) increased from .41 in childhood to .55 at age 30, and then reached a plateau around .70 between ages 50 and 70. Rank-order consistency (c) decreases as the time interval between observations increases, and does not vary markedly (d) across the Big Five traits nor (e) according to assessment method (i.e., self-reports, observer ratings, and projective tests), or (f) by gender.

Several observations can be drawn from this meta-analysis. First, the magnitude of rank-order consistency, although not unity, is still remarkably high. The only psychological constructs more consistent than personality traits are measures of cognitive ability (Schuerger & Witt, 1989). Second, the level of continuity in childhood and adolescence is much higher than originally expected (Lewis, 1999), especially after age three. Even more impressive is the fact that the level of stability increases in a relatively linear fashion through adolescence and young

adulthood. Young adulthood has been described as demographically dense, in that it involves more life-changing roles and identity decisions than any other period in the life course (Arnett, 2000). Yet, despite these dramatic contextual changes, personality differences remain remarkably consistent during this time period. Third, personality continuity in adulthood peaks later than expected. According to one prominent perspective, personality traits are essentially fixed and unchanging after age 30 (McCrae & Costa, 1994). However, the meta-analytic findings show that rank-order consistency peaks some time after age 50, but at a level well below unity. Finally, the levels of consistency found in this recent meta-analysis replicated smaller studies dating back to the early part of the 20th century. There have been few if any cohort shifts in the level of rank-order stability in personality traits in recent history.

The obvious question that arises from this meta-analysis is why does personality consistency increase with age? There are several obvious candidate mechanisms embedded in the neo-socioanalytic model. For example, genetic and environmental factors have been implicated in maintaining personality continuity over time (Fraley & Roberts, 2005). The best evidence for the role of genes in maintaining consistency has been provided by longitudinal studies that track monozygotic and dizygotic twins over time. For example, McGue, Bacon, and Lykken (1993) administered personality tests to monozygotic and dizygotic twins over a 10-year period. Their estimates of overall consistency were similar to other studies (ranging from .4 to .7) showing that there was a balance of consistency and change. Most interestingly, the authors estimated that 80% of the personality consistency demonstrated by their sample of twins was attributable to genetic influences (see also, Johnson, McGue, & Krueger, 2005).

Of course, the environment itself has often been invoked to explain consistency. Presumably, people experience more consistent environments as they age and this, in turn,

should promote greater continuity over time (Mischel, 1968). Unfortunately, there are very few studies that directly test this idea. There is some indirect evidence. For example, a longitudinal study of adult twins showed that a significant portion of continuity in personality traits over time was attributable to shared environmental experiences (Johnson, McGue, & Krueger, 2005). Unfortunately, like many twin studies, the actual environment was not assessed, so a direct test of the idea was not provided. In contrast, there is a tremendous amount of evidence to the contrary. For example, the level of rank-order stability in a study of American college students going through little or no serious environmental transitions (Robins et al, 2001) was identical to the rank-order stability found in a heterogeneous sample of New Zealanders, most of whom made major shifts from their family of origin to independent living (Roberts, Caspi, & Moffitt, 2001). The evidence for environmental consistency promoting personality consistency is weak at best.

Identity development is another factor that has been proposed as a contributor to increasing personality continuity with age (Roberts & Caspi, 2003). With age, the process of developing, committing to, and maintaining an identity leads to greater personality consistency (Roberts & Caspi, 2003). Implicit in this idea is the process of finding one's niche. People will select roles that on their face appear to fit with their dispositions, values and abilities and this selection process should facilitate continuity over time (Roberts & DelVecchio, 2000). Assuming that most roles will not fit perfectly, people will be motivated to shape the features of their roles so that they do fit better than before. Thus, through building an optimal or satisfying niche, people will inevitably create an environment that facilitates continuity over time.

Although one's identity is made up of constituent elements, such as traits and goals, it also consists of meta-cognitive elements which reflect people's perceptions of their own

attributes. For example, with age people become clearer about their own personality attributes, interests, abilities, and life story (Helson, Stewart, & Ostrove, 1995). This increase in identity clarity may also contribute to increasing consistency with age. For example, having an achieved identity was found to be related to higher levels of psychological well-being (Helson, Stewart, & Ostrove, 1995). Identity achievement has also been shown to be related to higher levels of self-esteem, autonomy, and moral reasoning, and to lower levels of anxiety (see Marcia, 1980). Therefore, identity, and aspects of identity--such as achievement, are linked to higher levels of psychological well-being and adjustment, which in turn are related to higher levels of personality trait consistency (Roberts & Caspi, 2003).

Having a well-developed identity may promote other personality-consistency mechanisms. For example, to the extent that a person's identity becomes known to others in the form of a reputation (Hogan & Roberts, 2000), other people may react to a person in a way that is consistent with his or her personality. For example, if a person has a reputation of being outgoing, other people may invite him or her to social engagements more often. Or, if a person has a reputation for being domineering, others may avoid that person or act submissive in his or her presence, which in turn engenders more domineering behavior.

The existence of rank-order stability does not preclude other types of change (see Block, 1971). For example, populations can shift up or down on a personality trait, even when there is perfect rank-order stability (Caspi & Roberts, 1999). Given this possibility, we conducted a second meta-analysis of longitudinal studies of mean-level change in personality traits (Roberts, Walton, & Viechtbaur, 2006). We examined patterns of change across 92 different longitudinal studies covering the life course from age 10 to 101. Across these studies, we found that people became more socially dominant (a facet of extraversion), especially in young adulthood. They

became more conscientious and emotionally stable through midlife. Although much of the change on agreeableness was positive, the increase was only statistically significant in old age. Finally, we found that individuals demonstrated gains in social vitality (a second facet of extraversion) and openness to experience in adolescence and then equivalent declines in old age for both of these trait domains. Clearly, change in personality traits is possible at all ages of the life course, with the preponderance of change occurring in young adulthood from ages 20 to 40.

Much like the meta-analysis of longitudinal consistency, several factors conspicuously did not affect patterns of mean-level change across the life course. First, men and women did not differ in their patterns of mean-level change in personality traits. Although reliable sex differences exist on several personality trait dimensions (Feingold, 1994), it appears that there are no reliable sex differences in the way these traits develop over time. Interestingly, like rank-order consistency, time had a positive effect on change in mean-levels. That is, longitudinal studies that follow participants for a longer period of time tend to report higher mean-level change estimates.

We also we found that cohort standing was related to differential patterns of mean-level change. Younger cohorts had larger standardized mean-level changes in terms of social dominance. The changes in social dominance were consistent with the cross-sectional patterns which indicate that younger cohorts are more assertive (e.g., Twenge, 2001). In addition, we found curvilinear relationships between cohort standing and both agreeableness and conscientiousness. This pattern indicated that studies focusing on samples drawn from the 1950s and 1960s tended not to increase as much as samples drawn from before and after this period of the 20th century, a pattern first identified by Helson, Jones, and Kwan (2002). These cohort findings point to the importance both of social context and the more inclusive social climate or

culture of the people living in a particular period of history. Presumably, social climate affects the way roles are enacted and the behaviors rewarded in those roles, which then affects personality trait development (see Figure 1).

Of course, rank-order consistency and mean-level change are not the only ways in which to track continuity and change (Caspi & Roberts, 1999). Continuity and change in the factor structure of personality traits over time can be examined, as well as individual differences in change. The latter reflect the fact that each person may have his or her own unique pattern of change despite the population level trends captured in global indices, such as rank-order consistency and mean-level change. Individual differences in personality trait change are especially relevant to the interface of the person and organization. As organizational experiences are particular to each individual, the assumption would be that distinct organizational experiences will be related to, if not the cause of unique patterns of personality trait change. Therefore correlations between individual differences in personality trait change and organizationally-base experiences would both support the idea of individual differences in change and the idea that organizational experiences are critical predictors of those changes. As we will see below, it appears that these patterns exist.

Personality Development and Organizational Experiences

Within the neosocioanalytic framework, personality traits and organizational experiences are in constant transaction across the life span. To better understand how these transactions affect development, I will build upon Schneider's attraction-selection-attrition model (ASA; Schneider et al., 1998). In this model, organizations become more homogeneous over time because people with common characteristics seek out organizations that will reward their proclivities. In turn, organizations seek out individuals who match the culture of the

organization and will hire individuals with a certain personality in disproportionate numbers. Finally, people who do not fit in with the organizational culture will have a tendency to leave the organization, accentuating the homogeneity effect.

Although, clearly more comprehensive and dynamic than most models of person-organization transactions, this model overlooks several ways of interacting with organizations that dovetail with the developmental patterns we see in personality traits. For example, in the original ASA model there is little room for people to change either themselves or their organization. That is to say, that the ASA framework overlooks socialization processes and any attempts made by the individual to shape their work to better suit their needs. To capture these types of transactions requires that we add two more ways of transacting with organizations, transformation and manipulation, resulting in the ASTMA model of person-organization transactions (Attraction, Selection, Transformation, Manipulation, & Attrition). Transformation refers to the fact that people may be changed by their organizational experiences. Manipulation, on the other hand, reflects the fact that people are not helpless in the face of organizational demands. Consciously or unconsciously they may attempt to shape their organizational experiences in order to maximize fit. Thus, they will change the organization at the level of their interactions. Below, I will review evidence for each step of the ASTMA model and how transactions in each step will play out in terms of personality development. I should note that though the model is sequential in its structure, it is clear that individuals spiral through these steps many times within an organizational experience and can skip stages or slightly change their order (e.g., manipulation before transformation).

Attraction and Selection: How do Personality Traits Affect Organizational Outcomes?

One of the consistent themes across organizational, social, developmental, and personality psychology is the perspective that people actively seek out situations that fit with their personality (Snyder & Ickes, 1985). Of course, organizations are not simply unwitting victims of the selection process. They, in turn, will seek to select individuals who share certain qualities that they believe match their climate or value system (Schneider et al, 1998). For example, selection of workers into management positions appears to be dictated early in the employment process when an individual gains the reputation of being a good performer (Graen, Novak, & Sommerkamp, 1982).

One of the best ways to test for attraction and selection effects is to see if personality traits, or other units of personality, predict organizational experiences later in life. This test requires longitudinal data in which people have been followed, preferably for many decades. Fortunately, there are now a handful of longitudinal studies in which this type of question has been addressed. Some of the longest running longitudinal studies of this sort are those housed in the Institute of Human Development at U.C. Berkeley (Eichorn, et al, 1981). One of the most well known organizational studies to come out of these data is Staw, Bell, and Clausen's (1986) study showing that dispositional affect measured in early adolescence predicted job attitudes in young adulthood and middle age. Thus, happy people tend to be more satisfied in their jobs. This study sparked a resurgence in research on the role of individual differences in organizations, re-establishing the possibility that personality traits influence work outcomes (Schneider & Smith, 2004).

Several additional studies drawn from the IHD data have demonstrated equally impressive selection effects. For example, participants from the IHD samples who were ill-tempered as children had more erratic work lives in young adulthood and were less successful

according to objective indicators of occupational attainment (Caspi et al, 1987). Analogously, participants who were shy in childhood initiated their careers at a later age (Caspi et al, 1988). Recently, Judge et al, (1999) used the IHD data to test how adolescent Big Five scores and measures of cognitive ability predicted occupational attainment and satisfaction in late middle age—a time span of 46 years. Despite the 4 decade gap between the assessment of personality and occupational attainment, they found that participants who were more conscientious and extraverted and less neurotic and agreeable were more successful in their careers in late middle age. In addition, these effects were independent of cognitive ability, which also predicted success.

Similar findings have emerged from the Mills Longitudinal Study of women. In this study, a group of women deemed to be creative in college was followed for 40 years along with a control group of women who were not nominated as creative. In one study, measures of personality assessed in college were used to predict occupational creativity at age 52 (Helson, Roberts, & Agronick, 1995). Occupational creativity was defined as being in a prestigious occupation that was also categorized as artistic on Holland's RIASEC system (Holland, 1985). A number of personality traits predicted this outcome 30 years later, but the best predictor was the creative temperament scale, which correlated .49 with success in creative careers 30 years later (Helson, Roberts, & Agronick, 1995). Moreover, this effect remained quite high even when controlling for the influence of cognitive ability.

In a recent longitudinal study following a sample of New Zealanders from age 18 to 26, we replicated many of these effects and extended the analysis to a broader set of occupational outcomes (Roberts, Caspi, & Moffitt, 2003). In addition to the standard outcome of occupational attainment and job satisfaction, we examined who acquired more resource power (control of

hiring, firing, and salary changes), who was more involved in their work, who had stronger feelings of financial security, who had more autonomy at work (decision latitude), and who were more stimulated by their work (learning new things on the job). We found that adolescents who scored high on neuroticism experienced a turbulent and unsuccessful transition into the world of work. By age 26, they occupied lower prestige jobs, were less satisfied with their jobs, and reported difficulties paying bills and making ends meet. Adolescents who scored high on traits from the domain of sociability/agreeableness had the opposite experience. By age-26, according to multiple measures, they achieved work success, experienced fewer financial problems, and were happier in their jobs. They also acquired more stimulating work by age-26. It appears that, at least in the case of young New Zealanders, nice men and women do not finish last. The predictive correlates of extraversion were similar to agreeableness, with one exception: By age-26, adolescents who were more socially dominant also achieved more resource power. As they entered the world of work, adolescents who were forceful and decisive, fond of leadership roles, and willing to work hard rose to positions where they had direct control over other people. Adolescents who scored high on traits from the domain of conscientiousness were more likely than other adolescents to achieve higher occupational attainment, to be satisfied with their job, to evidence higher levels of work commitment, and to be financially independent. These findings are consistent with previous research demonstrating the importance of traits from the domain of Conscientiousness to work outcomes (Judge, Higgins, Thoreson, & Barrick, 1999). The strongest pattern of relations with conscientiousness-related traits was with work involvement, indicating that conventional adolescents with good impulse control make stronger emotional and psychological commitments to their work than other adolescents.

Most of these studies focused on individual achievement and not organizational level variables. Two recent longitudinal studies have examined the intersection of personality and one of the mainstays of organizational psychology—person-organization fit. According to theoretical models of person-organization fit, individuals should be drawn to and thrive in the environments that share their characteristics (Chatman, 1991). Thus, rather than expecting a universal pattern of predictions from personality traits, the predictive relationships between personality and PO fit should be driven by the nature of the organization itself. For example, it should not be the case that all emotionally stable people fit well in an environment. Rather, if the organization calls for and values emotional stability, then people who are emotionally stable should fit better with that organization. Consistent with this perspective, different personality traits predicted fit in different organizations. In the first study, the organization was a university and the culture was described as unsupportive and competitive. Based on this description, it was expected that fit would be related to emotional stability and low agreeableness and this is what was found (Roberts & Robins, 2004). In the second study, the organization was also a university, but one described by students as valuing intellectual pursuits and the expansion of knowledge and insight. Consistent with this value system, students who were more open to experience fit better with the university's organizational culture (Harms, Roberts, & Winter, 2006).

These studies leave little doubt that personality traits help to shape the types of organizational experiences people have across their life course. Of course, it is unclear how these relationships play out and whether organizations are being selected or are selecting the individuals. Obviously, these two processes are not mutually exclusive. Interestingly, if these mechanisms are in place across the life course, we should find that PO fit should increase with age, a hypothesis that has yet to be tested.

Transformation: How do Experiences in Organizations Affect Personality Traits?

Complementing the findings that organizational experiences are in part dictated by personality traits, a number of studies have shown that the reverse is also true. Experiences in social organizations appear to promote change in personality traits. Analogous to the type of study needed to find support for the attraction and selection effects, a particular type of longitudinal analysis is necessary to infer a relationship between organizational experiences and change in personality. Specifically, one needs a longitudinal study in which organizational experiences are tracked over time and personality traits are assessed at least twice. Assessing personality multiple times allows one to track change in personality over time and to control for the selection effects we described above. The majority of studies described below utilized this type of design.

For example, men who achieved more than their fathers became more dependable and responsible, independent, and motivated for success over time (Elder, 1969). Mortimer and Lorence (1979) reported that men who experienced greater autonomy in work increased in competence in the ten-year period following graduation from college. Brousseau and Prince (1981) found that job characteristics were related to changes in personality in a longitudinal study of male engineers. Specifically, being called upon to use a wider variety of skills on the job was related to increases in emotional stability and task significance was related to increases in social dominance.

Several studies have also examined the relation between work experiences and personality change in women. Women who had high labor force participation increased in self-confidence from adolescence to midlife (Clausen & Gilens; 1990). Similarly, women who achieved higher levels of occupational attainment in work tended to increase on achievement,

responsibility, and self-control; demonstrating that more continuous investment in work is related to increases in facets from the domain of conscientiousness (Roberts, 1997).

Interestingly, despite the “dispositional” nature of job satisfaction, experiencing more satisfying work is related to changes in personality traits. Specifically work satisfaction is associated with increases in measures of emotional stability (Roberts & Chapman, 2000).

In our study of the relationship between work experiences and personality traits described above (Roberts, Caspi, & Moffitt, 2003), we also tested whether work experiences were related to changes in personality traits. We found that the pattern of associations between work experiences and change in personality was strongest for traits from the domains of neuroticism and extraversion. Young adults decreased faster in neuroticism if they were in higher-status jobs that were more satisfying and if they achieved financial security. Similarly, young adults increased in facets of extraversion if they were in higher status, more satisfying jobs that provided enough money to make ends meet. Moreover, increases in social dominance, a facet of extraversion, were also associated with experiencing more resource power and greater work involvement. Young adults who gained power became more confident and harder working. Finally, young adults increased on facets of conscientiousness if they were more involved in their jobs and financially secure.

In our longitudinal studies we have also found that person-organization fit is related to change in personality. In the first study in which the university called for emotional stability and disagreeableness, higher levels of fit over time were related to increases in emotional stability and decreases in agreeableness (Roberts & Robins, 2004). In the second study in which the university called for openness to experience we found that higher levels of fit over time were related to increases in openness (Harms, Roberts, & Winter 2006).

Because all of these studies are passive longitudinal studies, it is impossible to discern the exact causal direction of the transactions between persons and organizations. We can conclude only that change in personality is associated with work experiences. Nonetheless, this leaves two possible interpretations. First, changes in personality may be causing people to achieve more or have different experiences at work. For example, becoming more dominant may lead to choosing to fight for positions of power and acquiring them. Second, life experiences may actually be changing personality traits. At this point in time, this conclusion can be preferred only through the examination of indirect factors. For example, we know from intervention studies that personality traits can be changed, often close to a half of a standard deviation over relatively short periods of time (De Fruyt, Leeuwen, Bagby, Rolland, & Rouillon, 2006). Moreover, there are studies examining other life experiences, such as marriage and antisocial activities that have been shown to have prospective effects on change in personality traits (Roberts & Bogg, 2004). Unfortunately, at this point in time, the appropriate intervention study or passive longitudinal study examining work experiences has yet to be run in order to substantiate the inference that work experiences are actually causing change in personality traits.

If one looks across the predictive and change relationships found in many of the longitudinal studies that we have described, a systematic pattern emerges. The traits that “selected” people into specific work experiences, whatever the process, were the same traits that changed in response to those same work experiences. We have described this pattern as “corresponsive” and believe that this is the most probable type of personality change that occurs over the life course (Roberts & Caspi, 2003; Roberts & Wood, 2006). That is, life experiences do not impinge themselves on people in a random fashion causing widespread transformation in

personality structure. Rather, the traits that people already possess will be deepened and elaborated by trait-correlated experiences.

Manipulation and Attrition: The Understudied Phenomena

The last two ways people may interface with an organization would be by changing their organization and/or leaving their organization. Presumably, both would result in greater continuity in personality over time. In terms of changing an organization, one would assume that the organization would be changed in order to better match a person's personality or to match their ideal vision, which would presumably reflect their personality. Two mechanisms are most likely involved in this process. First, one way in which an organization would change is through "evocative" processes (Caspi & Roberts, 1999). That is, people tend to evoke personality consistent responses from others, and this process can occur outside of conscious awareness. For example, aggression typically evokes hostility from others (Dodge & Tomlin, 1987), which would convince the aggressive person that it was a "dog eat dog" world and reinforce his aggressive tendencies. Presumably, adding an aggressive person to an organization would change the organization to become a more aggressive place because of these reciprocal processes. Likewise, dominant behavior is typically responded to with submissive responses (Thorne, 1987). Thus, a dominant person, by evoking more submissive responses from others would find their perception that they are leadership material reinforced. As people make up the primary interface with an organization, presumably evocative transactions would largely define the way in which an organization is experienced and how it would be changed over time. Moreover, since personality traits appear to change with age, a person's organizational experience may change in concert with these developmental trends. If a group of workers becomes more conscientious

over time, then these personality changes may translate into changes in their work experiences and their work environment.

The second way in which a person may “manipulate” the organization is to change it in some way over time. Influencing the organization can occur from the bottom up or the top down. For example, leaders have tremendous power to shape the nature of the organization by hiring, firing, and promoting individuals. Through these perquisites of power, a person can wield tremendous influence over the culture of an organization from the top down. For example, cross-sectional studies of groups have shown that leader’s conscientiousness and cognitive ability affect decision making and treatment of subordinates (LePine, Hollenbeck, Ilgen, & Hedlund, 1997). Presumably over a long period of time, these qualities of a leader would affect the culture and climate of an organization.

Of course, most people do not wield much power and their attempts to change their organization have gone unexamined. In fact, more often than not, organizations are treated as static entities that do not change over time. Rather, they are the socializing agents, not the target of socialization. In contrast, the idea of job crafting (Wrzesniewski & Dutton, 2001) or job sculpting (Bell & Staw, 1989) reflects the perspective that individuals are active agents in their relationships to organizations. They can affect change in their day-to-day work experience from the bottom up through changing the tasks they do, organizing their work differently, or changing the nature of the relationships they maintain with others (Wrzesniewski & Dutton, 2001). Unfortunately, none of these ideas has been tested in a true longitudinal study in which the organization can be seen shifting over time.

In fact, there is a surprising paucity of research examining continuity and change in psychological meaning of organizational characteristics over time. However, in a recent study,

we provided one of the first glimpses into how perceptions of an organization can and do change over time (Harms, Roberts, & Winter, 2006). As noted above, in this study perceptions of the ideal and actual university environment were tracked over a four-year period for a large group of Harvard undergraduates. Although not a direct reflection of evocative or manipulative strategies of changing an organization, these perceptions do constitute one of the few instances when the perception of an organization on psychologically meaningful constructs has been tracked in a longitudinal study. The resulting patterns are at least informative for addressing the question of whether there are changes in perceptions of the organization over time. Surprisingly, we found several large changes for perceptions of the presses in the environment over time while the changes in corresponding needs were found less often and to a smaller degree. That is, people were more likely to change their perceptions of their environment than their own self-perceptions.

The nature of the changes in perceived environment and in needs appeared quite consistent with the transition made by the students from freshman to senior years in college. Students found the university to be less playful, energetic, risky, and introspective as they progressed toward graduation. In essence, the school moved from being fun to being a more sober and serious place. In contrast, the students found the university to become more hedonistic, aggressive, dominant, and focused on future achievement. These changes are consistent with the worldview of a graduating senior who has been readied for the world by an organization designed to facilitate the attainment of status and recognition. Changes in personal needs were similar in content, but far fewer in number and magnitude.

To our knowledge, this is one of the first studies to track and report changes on dimensions of the environment and the person that were designed to be commensurate in nature. This makes the comparison of change more meaningful, such that we can state with more

confidence that perceptions of the environment changed more than personal needs. This finding has important implications for our understanding of development, as stereotypically the environment has been portrayed as a stable influence on personality (e.g. Feldman, 1981). If, however, the perceptions of the environment are more dynamic than self-perceptions, then more attention should be paid to the mechanisms through which people avoid changing in response to a more dynamic environment (Roberts & Wood, 2006). For example, through the use of strategic information processing mechanisms, or more euphemistically—defense mechanisms—people may inoculate themselves from the effect of a changing environment. People may suppress or deny the meaning of job changes, such as the hiring of a new supervisor or the impact of a demotion, in order to protect their self-worth and through this process maintain a consistent personality despite changes in the environment.

If research on the continuity and change in the psychological meaning of organizations is rare, then research on the effect of attrition on personality is relatively non-existent. This is quite understandable as the organization is often the point of contact for our research. Once someone leaves the organization, they also leave our study. Thus, the study of the effect of leaving an organization or type of organization remains an entirely untapped research domain. Nonetheless, one would assume that transitions into and out of different organizations would provide critical turning points and opportunities for both change and consistency.

A Life Course Integration of the ASTMA Model

In summary, the ASTMA model provides a relatively complete description of the key transactions between persons and organizations that are relevant to personality and personality development. Several key questions remain, such as how these mechanisms interact with one another, and how they play out across the life course.

As a general gestalt of person-organization transactions, the ASTMA model makes clear that the predominant personality-related phenomenon is continuity rather than change. The attraction, selection, and manipulation transactions serve to bolster continuity over time as they reflect unconscious or active attempts to create a personal niche that reflects one's attributes. The effect of attrition should be evenly split between continuity and change. If someone leaves an organization by choice to go to a more optimal organizational setting, this should promote continuity. On the other hand, if the transition is not within their control due to being laid off, then a person's ability to move to a more optimal organization may be hindered. Given the fact that the majority of transactions with organizations promote continuity, we should find increasing personality continuity with age, which is what repeated studies have found (Roberts & DelVecchio, 2000). In turn, because the continuity mechanisms clearly outweigh the change mechanisms, changes in personality should be modest. Evidence for this appears to already exist in the base rate of personality change. For example, the modal number of traits showing dramatic change in young adulthood appears to be 1 out of 5 (Roberts, Caspi, & Moffitt, 2001, Robins et al, 2001).

As the life course progresses, continuity factors should begin to take precedent over change factors. Individuals should become better at selecting environments that fit with their personality as they age and avoiding problematic environments. With the natural accumulation of status that comes with experience, people should also get more opportunities to define their work and thus better manipulate their work place to fit their predilections. In terms of organizational outcomes, these patterns should result in a general increase in PO fit over the life course as well as a general increase in job satisfaction (e.g., Clark, Oswald, & Warr, 1996).

In terms of the change in personality, multiple factors from the ASTMA model and the neo-socioanalytic framework converge on young adulthood being the key developmental period for personality traits. Young adulthood is the period when people are exposed to more serious role demands, and thus transformational processes should be at a peak during this period.

Specifically, people move from being dependent on others in adolescence to becoming both independent and responsible in young adulthood as they initiate their careers and start a family. Acquiring independence, while simultaneously becoming responsible for others would naturally call for people to be more confident, conscientiousness, and calm in the face of stress. Thus, as we have found in several longitudinal studies, investments in conventional social institutions are related to increasing scores on measures of social dominance, agreeableness, conscientiousness, and emotional stability (Roberts, Wood, & Smith, 2005).

A second factor that would facilitate transformational mechanisms taking precedence in young adulthood is that up until that point in the life course, people's identities are provisional. The adolescent identity is a composite of potentials that better reflect possible selves rather than actual selves. Of course, possible selves may still have an effect on development (Roberts, O'Donnell, & Robins, 2004). Nonetheless, a provisional identity can be shed more easily than one that has been committed to or one that has been invested in for a long period of time. A third contributing factor to young adulthood being the fulcrum period of personality trait development is that it is the time when people make their first serious commitments to work. By making these commitments, people inevitably expose themselves to the new forces of change that come with the transformational transactions (Roberts, Wood, & Smith, 2005). They will meet a set of expectations, demands, and contingencies that call for new or improved behavior patterns.

From this transactional model of continuity and change, we can also better understand certain seemingly non-intuitive findings. For example, life events, though stressful, do not always impart change in personality (Caspi & Moffitt, 1993). For example, a typical feature of socialization models is the assumption that simple life events, demographic changes, or large life events are the locus of change. The ASTMA model and the neo-socioanalytic model provide a compelling alternative hypothesis. It is not the significant life event that changes an individual. It is the long term environment that presses on the individual over years and decades that imparts change, not the loss of a job or existence of a seemingly dramatic transition. If change is dependent on being exposed to contingencies and being committed to the social milieu in which they come, then a transition or life event, by definition cannot impart much change. What becomes much more important is the nature of the environment over time after the event, not the event itself.

The long, slow model of change has important implications for training programs in organizations. Many training programs are born out of a behaviorist world view, which assumes that short interventions focused on changing discrete behaviors are appropriate. For many issues, such as learning how to use a new computer program, this assumption is fine. On the other hand, many organizations attempt to train employees to be better managers and leaders. As personality traits, motives, and abilities play a significant role in managerial and leadership success, attempting to train a person to become a better manager or leader constitutes changing his or her personality. This is not an unreasonable venture, but given the nature of personality change, applying a behavioristic model to the training intervention is inappropriate. That is, most training programs, regardless of their focus, are too brief to successfully change a person to become a better manager or leader. In contrast, if one takes a long view of training people in

ways that would inevitably change their personality, then training programs would be designed to work over months and years, rather than days and weeks. This would have the added benefit of communicating to the employee that the organization is committed to the employee improving his or her management skills. One would assume that this would enhance the effectiveness of the training program and improve the employee's outlook on the organization.

The long term perspective on change is also relevant to training older employees. One of the basic propositions of the neo-socioanalytic framework is that people remain open systems even in old age (Roberts & Wood, 2006). Thus, change is still possible if not inevitable. The mistake that is often made is to assume that older individuals cannot change, as it is difficult to "teach an old dog new tricks." In actuality, it is difficult to teach any dog a new trick. Given the long-term perspective engendered by the neo-socioanalytic model, changing older workers is most likely just as difficult as changing younger employees. Of course, given the different contingencies in young adulthood versus middle age, the younger employee might be more receptive to the training. Nonetheless, the assumption that older workers cannot be trained does correspond well with the longitudinal research showing that entrenched phenomena, like personality traits, can and do change in old age. If personality traits can change, then why not other syndromes or skill sets related to organizational performance? Again, the primary caveat being that without a long term investment in change, transformation will most likely not come about whether the employee is young or old.

Conclusion

In this chapter I have attempted to outline a general theory of personality that can inform a richer, more accurate picture of personality development and facilitate a more fruitful interface between personality psychology and organizational behavior. Several features of the theoretical

model deserve emphasis. First, I see a number of theoretical and empirical benefits of integrating social roles into a model of personality. This integration provides a well-organized conduit through which features of the organization act on an individual's personality, and in turn where personality may act on an organization. I also hold out hope that the inculcation of roles, combined with a hierarchical approach to all of the domains of personality, can facilitate a productive integration of long simmering divisions within personality psychology and organizational behavior. Specifically, the Neo-socioanalytic model of personality can successfully resolve person-situation debates that have been predicated on a misunderstanding of both person and situation.

Second, the integration of trait and social cognitive approaches to personality psychology also provides an important leverage point for a better relationship between personality psychology and organizational behavior. Social cognitive mechanisms are necessary to explain why personality traits change and continue to develop in adulthood. Social cognitive mechanisms are also more amenable to organizational influences—it is simpler to shape a behavior or low level goal than to transform a trait. Nonetheless, given the goal of most organizational interventions, which is to shape behavior in the long term, it is clear that shaping social cognitive units will be the first step in long term socialization processes that will change both personality and the organization.

One reason to aspire to a productive reconciliation between personality psychology and organizational behavior is that so much work still needs to be done. The pattern of relationships between personality traits and organizational experiences begs the question of how and why these relationships occur. What are the intervening mechanisms that facilitate a dominant person being more likely to assume a position of power in an organization? Why do certain experiences

impart change for individuals? What are the intervening mechanisms that enhance or detract from change occurring? The answers to these and related questions lie in a broader reconciliation between traditional trait and social cognitive approaches to personality psychology, as well as a keen understanding of organizational dynamics (Roberts, 2006; Roberts & Caspi, 2003). The mechanisms linking personality traits and organizational factors have to be the micro-analytic components of social cognitive models, such as schemas, moods, cognitive processing styles, and beliefs. Of course, organizational theory can provide useful insights into how situational constraints and demands can shape a person's thoughts, feelings and behaviors and subsequently their personality.

References

- Ackerman, P.L., & Heggestad, E.D. (1997). Intelligence, personality, and interests: Evidence for overlapping traits. *Psychological Bulletin, 121*, 219-245.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*, 469-480.
- Ashton, M. C., Lee, K., Perugini, M., Szarota, P., de Vries, R. E., Di Blas, L., Boies, K., De Raad, B. (2004). A Six-Factor Structure of Personality-Descriptive Adjectives: Solutions From Psycholexical Studies in Seven Languages. *Journal of Personality and Social Psychology, 86*, 356-366.
- Austin, J.T., & Vancouver, J.B. (1996). Goal constructs in psychology: Structure, process and content. *Psychological Bulletin, 120*, 338-375.
- Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology, 44*, 1-26.
- Bauer, J. J., & McAdams, D. P. (2004). Personal growth in adults' stories of life transitions. *Journal of Personality, 72*, 573-602.
- Baumeister, R.F., & Leary, M.R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*, 497-529.
- Bell, N. E., & Staw, B. M. (1989). People as sculptors versus sculpture: The roles of personality and personal control in organizations. In M B. Arthur, D. T. Hall, & B.S. Lawrence (Eds.), *Handbook of Career Theory*. New York, NY: Cambridge University Press.
- Block, J. (1971). *Lives through time*. Berkeley, CA: Bancroft.
- Block, J. (1993). Studying personality the long way. In D. C. Funder, R. D. Parke, C. Tomlinson-Keasey, & K. Widaman, *Studying lives through time* (pp. 9-41). Washington DC: American Psychological Association.
- Borkenau, P., Mauer, N., Riemann, R., Spinath, F. M., Angleitner, A. (2004). Thin Slices of Behavior as Cues of Personality and Intelligence. *Journal of Personality and Social Psychology, 86*, 599-614.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Brousseau, K. R., & Prince, J. B. (1981). Job-person dynamics: An extension of longitudinal research. *Journal of Applied Psychology, 66*, 59-62.
- Caspi, A., Elder, G. H., Bem, D. J. (1987). Moving against the world: Life-course patterns of explosive children. *Developmental Psychology, 23*, 308-313.
- Caspi, A., Elder, G. H., Bem, D. J. (1988). Moving away from the world: Life-course patterns of shy children. *Developmental Psychology, 24*, 824-831.
- Caspi, A., & Moffitt, T. E. (1993). When do individual differences matter? A paradoxical theory of personality coherence. *Psychological Inquiry, 4*, 247-271.
- Caspi, A., & Roberts, B.W. (1999). Personality continuity and change across the life course. In L.A. Pervin & O.P. John (Eds.), *Handbook of personality: theory and research* (2nd ed., pp. 154-196). New York, NY: Guilford.
- Cervone, D., Shadel, W. G., Jencius, S. (2001). Social-Cognitive theory of personality assessment. *Personality and Social Psychology Review, 5*, 33-51.
- Cervone, D., & Shoda, Y. (1999). *The coherence of personality*. New York, NY: The Guilford Press.
- Chatman, J. (1991). Matching people and organizations: Selection and socialization in public accounting firms. *Administrative Science Quarterly, 36*, 459-484.

- Clark, A., Oswald, A., & Warr, P. (1996). Is job satisfaction U-shaped in age? *Journal of Occupational and Organizational Psychology*, *69*, 57-81.
- Clausen, J. A., & Gilens, M. (1990). Personality and labor force participation across the life course: A longitudinal study of women's careers. *Sociological Forum*, *5*, 595-618.
- Costa, P. T., Jr., & McCrae, R. R. (1994). *Revised NEO Personality Inventory (NEO-PI-R) and NEO-Five-Factor Inventory (NEO-FFI) Professional Manual*. Odessa, FL: Psychological Assessment Resources.
- Davis-Black, A., & Pfeffer, J. (1989). Just a mirage: the search for dispositional effects in organizational research. *Academy of Management Review*, *14*, 385-400.
- De Fruyt, F., Van Leeuwen, K., Bagby, R. M., Rolland, J., & Rouillon, F. (2006) Assessing and Interpreting Personality Change and Continuity in Patients Treated for Major Depression. *Psychological Assessment*, *18*, 71-80.
- de St. Aubin, Ed. (1999). Personal ideology: The intersection of personality and religious beliefs. *Journal of Personality*, *67*, 1105-1139.
- Dodge, K. A., & Tomlin, A. M. (1987). Utilization of self-schemas as mechanisms of interpretational bias in aggressive children. *Social Cognition*, *5*, 280-300.
- Donahue, E.M., & Harary, K. (1998). The patterned inconsistency of traits: Mapping the differential effects of social roles on self-perceptions of the Big Five. *Personality and Social Psychology Bulletin*, *24*, 610-619.
- Eichorn, D. H., Clausen, J. A., Haan, N., Honzik, M. P., & Mussen, P. H. (1981). *Present and past in Middle Life*. New York: Academic Press.
- Elder, G. H. (1969). Occupational mobility, life patterns, and personality. *Journal of Health and Social Behavior*, *10*, 308-323.
- Emmons, R.A. (1986). Personal strivings: An approach to personality and subjective well-being. *Journal of Personality and Social Psychology*, *51*, 1058-1068.
- Eysenck, H. J. (1970). *The structure of human personality*. New York, NY: Methuen.
- Feingold, A. (1994). Gender differences in personality: A meta-analysis. *Psychological Bulletin*, *116*, 429-456.
- Feldman, D.C. (1981). The multiple socialization of organizational members. *Academy of Management Review*, *6*, 309-318.
- Fiese, B. H., Hooker, K. A., Kotary, L., Schwagler, J., & Rimmer, M. (1995). Family stories in the early stages of parenthood. *Journal of Marriage & the Family*, *57*, 763-770.
- Ford, M. E. & Nichols, C. W. (1987). A taxonomy of human goals and some possible applications. In M. Ford & D. Ford (Eds.), *Humans as self-constructing living systems: Putting the framework to work*, (pp. 289-311). Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.
- Fraley, C., & Roberts, B. W. (2005). Patterns of Continuity: A Dynamic Model for Conceptualizing the Stability of Individual Differences in Psychological Constructs Across the Life Course. *Psychological Review*, *112*, 60-74.
- Funder, D. C., & Ozer, D. J. (1983). Behavior as a function of the situation. *Journal of Personality and Social Psychology*, *44*, 107-112.
- Goldberg, L.R. (1993). The structure of phenotypic personality traits. *American Psychologist*, *48*, 26-34.
- Goffman, E. (1959). *The presentation of self in everyday life*. New York, NY: Doubleday.
- Graen, G. B., Novak, M. A., & Summerkamp, P. (1982). The effects of leader-member exchange and job design on productivity and satisfaction: testing a dual attachment model. *Organizational Behavior and Human Decision Processes*, *30*, 109-131.
- Gray, J. R., & Thompson, P. M. (2004). Neurobiology of intelligence: Science and Ethics. *Nature Neuroscience*, *5*, 471-482.

- Harms, P. D., Roberts, B. W., & Winter, D. (2006). Becoming the Harvard Man: Person-Environment Fit, Personality Development, and Academic Success. *Personality and Social Psychology Bulletin*, 32, 851-865
- Haslam, S., Alexander, D., Postmes, T., Ellemers, N., (2003). More than a Metaphor: Organizational Identity Makes Organizational Life Possible. *British Journal of Management*, 14, 357-369.
- Helson, R., Jones, C., Kwan, V. S. Y. (2002). Personality change over 40 years of adulthood: Hierarchical linear modeling analyses of two longitudinal samples. *Journal of Personality & Social Psychology*, 83, 752-766.
- Helson, R., Roberts, B. W., & Agronick, G. (1995). Enduringness and change in creative personality and the prediction of occupational creativity. *Journal of Personality and Social Psychology*, 69, 1173 - 1183.
- Helson, R., Stewart, A. J., & Ostrove, J. (1995). Identity in three cohorts of midlife women. *Journal of Personality and Social Psychology*, 69, 544 – 557.
- Hofstede, G., Bond, M. H., & Luk, C. (1993). Individual perceptions of organizational cultures: A methodological treatise on levels of analysis. *Organization Studies*, 14, 483-503.
- Hogan, J., & Holland, B. (2003). Using theory to evaluate personality and job-performance relations: A socioanalytic perspective. *Journal of Applied Psychology*, 88, 100-112.
- Hogan, R. T. (1982). A socioanalytic theory of personality. *Nebraska Symposium on Motivation*. (pp. 55-89). University of Nebraska Press.
- Hogan, R. T. & Roberts, B. W. (2000). A Socioanalytic perspective on person/environment interaction. In W. B. Walsh, K. H. Craik, & R. H. Price (Eds.), *New directions in person-environment psychology* (pp. 1-24) Mahway, NJ: Earlbaum.
- Holland, J. L. (1985). *Making vocational choices: A theory of vocational personalities and work environments*. Englewood Cliffs, NJ: Prentice Hall.
- Hough, L. M., & Ones, D. S. (2002). The structure, measurement, validity, and use of personality variables in industrial, work, and organizational psychology. Anderson, N. Ones, D. S., Sinangil, H. K., Viswesvaran, C. (Eds). *Handbook of industrial, work and organizational psychology, Volume 1: Personnel psychology*. (pp. 233-277). Thousand Oaks, CA: Sage Publications Ltd.
- Ilgel, D. R., & Hollenbeck, J. R. (1991). The structure of work: Job design and roles. M. D. Dunnette, & L. M. Hough, (Eds). *Handbook of industrial and organizational psychology, Vol. 2 (2nd ed.)*. (pp. 165-207). Palo Alto, CA, US: Consulting Psychologists Press, Inc.
- Johnson, W., McGue, M., Krueger, R. F. (2005). Personality Stability in Late Adulthood: A Behavioral Genetic Analysis. *Journal of Personality*. 73, 523-551.
- Judge, T. A., Bono, J. E., Ilies, R., & Gerhardt, M. W. (2002). Personality and leadership: A qualitative and quantitative review. *Journal of Applied Psychology*, 87, 765-780.
- Judge, T. A., Heller, D., & Mount, M. K. (2002). Five-factor model of personality and job satisfaction: A meta-analysis. *Journal of Applied Psychology*, 87, 530-541.
- Judge, T.A., Higgins, C.A., Thoresen, C.J., & Barrick, M.R. (1999). The big five personality traits, general mental ability, and career success across the life span. *Personnel Psychology*, 52, 621-652.
- Kochanska, G., & Murray, K. T. (2000). Mother-child mutually responsive orientation and conscience development: From toddler to early school age. *Developmental Psychology*, 71, 417-431.
- Kohn, M.L., & Schooler, C. (1978). The reciprocal effects of the substantive complexity of work and intellectual flexibility: A longitudinal assessment. *American Journal of Sociology*, 84, 24-52.

- LePine, J. A., Hollenbeck, J. R., Ilgen, D. R., & Hedlund, J. (1997). Effects of individual differences on the performance of hierarchical decision-making teams: Much more than g. *Journal of Applied Psychology*, 82, 803-811.
- Lewis, M. (1999). On the development of personality. In L.A. Pervin & O.P. John (Eds.), *Handbook of personality: theory and research* (2nd ed., pp. 327-346). New York, NY: Guilford.
- Lubinski, D. (2000). Scientific and social significance of assessing individual differences: Sinking shafts at a few critical points. *Annual Review of Psychology*, 51, 405-444.
- Marcia, J. E. (1980). Identity in adolescence. In J. Adelson (Ed.), *Handbook of adolescent psychology* (pp. 159-187). New York: Wiley.
- Maslow, A. H. (1968). *Toward a psychology of being* (2nd edition). New York, NY: Van Nostrand.
- Mayer, J. D. (2005). A tale of two visions: Can a new view of personality help integrate psychology. *American Psychologist*, 60, 294-307.
- McAdams, D.P. (1993). *The stories we live by: Personal myths and the making of the self*. New York, NY: William Morrow.
- McCrae, R.R. (2004). Human nature and culture: A trait perspective. *Journal of Research in Personality*, 38, 3-14.
- McCrae, R. R., & Costa, P. T. (1994). The stability of personality: Observation and evaluations. *Current Directions in Psychological Science*, 3, 173-175.
- McCrae, R. R., & Costa, P. T., Jr. (1997). Personality trait structure as a human universal. *American Psychologist*, 52, 509-516.
- McGue, M., Bacon, S., & Lykken, D.T. (1993). Personality stability and change in early adulthood: A behavioral genetic analysis. *Developmental Psychology*, 29, 96-109.
- Meyer, G. J., Finn, S. E., Eyde, L. D., Kay, G. G., Moreland, K. L., Dies, R. R., et al. (2001). Psychological testing and psychological assessment. *American Psychologist*, 56, 128-165.
- Mischel, W. (1968). *Personality and assessment*. New York: Wiley.
- Mount, M. K., Barrick, M. R., & Strauss, J.P. (1994). Validity of observer ratings of the big five personality factors. *Journal of Applied Psychology*, 79, 272-280.
- Mortimer, J. T., & Lorence, J. (1979). Occupational experience and the self-concept--A longitudinal study. *Social Psychology Quarterly*, 42, 307-323.
- Mowday, R. T., & Sutton, R. I. (1993). Organizational behavior: Linking individuals and groups to organizational contexts. *Annual Review of Psychology*, 44, 195-229.
- Murray, H. A. (1938). *Explorations in Personality*. New York: Oxford University Press.
- Piedmont, R.L., McCrae, R. R., Riemann, R., & Angleitner A. (2000). On the invalidity of validity scales: Evidence from self-reports and observer ratings in volunteer samples. *Journal of Personality and Social Psychology*, 78, 582-593.
- Porter, C., Hollenbeck, J. R., Ilgen, D. R., Ellis, A. P. J., West, B. J; Moon, H., (2003). Backing up behaviors in teams: The role of personality and legitimacy of need. *Journal of Applied Psychology* 88, 391-403.
- Pratt, M. G. (2000). The good, the bad, and the ambivalent: Managing identification among Amway distributors. *Administrative Science Quarterly*, 45, 456-493.
- Pratt, M. G., & Rafaeli, A. (1997). Organizational dress as a symbol of multilayered social identities. *Academy of Management Journal*, 40, 862-898.
- Pratt, M. G., & Rafaeli, A. (2001). Symbols and relating work in organizations. In B. M. Staw & R. I. Sutton (Eds.), *Research in Organizational Behavior* (pp. 93-132). Stamford, CT: JAI Press.

- Roberts, B. W. (1997). Plaster or plasticity: Are work experiences associated with personality change in women? *Journal of Personality*, *65*, 205-232.
- Roberts, B. W. (2005). Blessings, banes, and possibilities in the study of childhood personality. *Merrill Palmer Quarterly*, *51*, 367-378.
- Roberts, B. W. (2006). From kindling to conflagration: Self-regulation and personality change. In K.W. Schaie & L.L. Carstensen (Eds.), *Social structures, aging and self-regulation in the elderly* (pp. 85-94). New York, NY; Springer Publishing Company.
- Roberts, B. W., & Bogg, T. (2004). A 30-year longitudinal study of the relationships between conscientiousness-related traits, and the family structure and health-behavior factors that affect health. *Journal of Personality*, *72*, 325-354.
- Roberts, B. W., & Caspi, A. (2003). The cumulative continuity model of personality development: Striking a balance between continuity and change in personality traits across the life course. R. M. Staudinger & U. Lindenberger (Eds.), *Understanding Human Development: Lifespan Psychology in Exchange with Other Disciplines* (pp. 183-214). Dordrecht, NL: Kluwer Academic Publishers.
- Roberts, B. W., Caspi, A., & Moffitt, T. (2001). The kids are alright: Growth and stability in personality development from adolescence to adulthood. *Journal of Personality and Social Psychology*, *81*, 670-683.
- Roberts, B. W., Caspi, A., & Moffitt, T. (2003). Work Experiences and Personality Development in Young Adulthood. *Journal of Personality and Social Psychology*, *84*, 582-593.
- Roberts, B. W., & Chapman, C. (2000). Change in dispositional well-being and its relation to role quality: A 30-year longitudinal study. *Journal of Research in Personality*, *34*, 26-41.
- Roberts, B. W., & DelVecchio, W. F. (2000). The rank-order consistency of personality from childhood to old age: A quantitative review of longitudinal studies. *Psychological Bulletin*, *126*, 3-25.
- Roberts, B. W., & Donahue, E. M. (1994). One personality, multiple selves: Integrating personality and social roles. *Journal of Personality*, *62*, 201-218.
- Roberts, B. W., Harms, P.D., Smith, J., Wood, D. & Webb, M. (2006). Methods in personality psychology. In Eid, M. & Diener, E. (Eds.). *Handbook of Psychological Assessment: A Multimethod Perspective (Chapter 22, pp. 321-335)*. Washington, D.C.: American Psychological Association.
- Roberts, B. W., O'Donnell, M., & Robins, R. W. (2004). Goal and personality development. *Journal of Personality and Social Psychology*, *87*, 541-550.
- Roberts, B. W., & Pomerantz, E. M. (2004). On traits, situations, and their integration: A developmental perspective. *Personality and Social Psychology Review*, *8*, 402-416.
- Roberts, B. W., & Robins, R. W. (2000). Broad dispositions, broad aspirations: The intersection of the Big Five dimensions and major life goals. *Personality and Social Psychology Bulletin*, *26*, 1284-1296.
- Roberts, B. W., & Robins, R. W. (2004). A longitudinal study of person-environment fit and personality development. *Journal of Personality*, *72*, 89-110.
- Roberts, B. W., Walton, K. & Viechtbauer, W. (2006). Patterns of Mean-Level Change in Personality Traits Across the Life Course: A Meta-Analysis of Longitudinal Studies. *Psychological Bulletin*.
- Roberts, B. W., & Wood, D. (2006). Personality development in the context of the Neo-Socioanalytic Model of personality (Chapter 2, pp. 11-39). In D. Mroczek & T. Little

- (Eds.), *Handbook of Personality Development*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Roberts, B. W., Wood, D., & Smith, J. L. (2005). Evaluating Five Factor Theory and social investment perspectives on personality trait development. *Journal of Research in Personality, 39*, 166-184.
- Robins, R. W., Fraley, C., Roberts, B. W., & Trzesniewski, K. (2001). A longitudinal study of personality change in young adulthood. *Journal of Personality, 69*, 617-640.
- Rolfhus, E. & Ackerman, P.L. (1999). Assessing individual differences in knowledge: Knowledge, intelligence, and related traits. *Journal of Education Psychology, 91*, 511-526.
- Salancik, G. R., & Pfeffer, J. (1978). A social information processing approach to job attitudes and task design. *Administrative Science Quarterly, 23*, 224-253.
- Saucier, G. (2003). An alternative multi-language structure of personality attributes. *European Journal of Personality, 17* 179-205.
- Schneider, B., Smith, D. B. (2004). *Personality and organizations*. Mahwah, NJ: LEA.
- Schneider, B., Smith, D. B., Taylor, S., & Fleener, J. (1998). Personality and organizations: A test of the homogeneity of personality hypothesis. *Journal of Applied Psychology, 83*, 462-470.
- Schuerger, J. M., & Witt, A. C. (1989). The temporal stability of individually tested intelligence. *Journal of Clinical Psychology, 45*, 294-302.
- Schwartz, S.H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology, 25*, 1-65.
- Snyder, M., & Ickes, W. (1985). Personality and Social Behaviour. In E. Aronson & G. Lindzey (Eds.), *Handbook of Social Psychology*. (pp. 248-305). New York: Random House.
- Staw, B. M., & Cohen-Charash, Y. (2005). The dispositional approach to job satisfaction: More than a mirage, but not yet an oasis: Comment. *Journal of Organizational Behavior, 26*, 59-78.
- Staw, B. M., Bell, N. E., & Clausen, J. A. (1986). The dispositional approach to job attitudes: A lifetime longitudinal test. *Administrative Science Quarterly, 31*, 56-77.
- Staw, B. M., & Ross, J. (1985). Stability in the midst of change: A dispositional approach to job attitudes. *Journal of Applied Psychology, 70*, 469-480.
- Stryker, S. & Serpe, R. T., (1982). Commitment, identity salience, and role behavior: Theory and research example. In W. Ickers & E. Knowles (Eds.), *Personality, Roles and Social Behavior* (pp. 199-219). New York, Springer-Verlag
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In G. Worchel (Ed.), *Social Psychology of Group Relations* (pp. 33-47). Monterey, CA: Brooks-Cole.
- Thorne, A. (1987). The press of personality: A study of conversations between introverts and extraverts. *Journal of Personality & Social Psychology, 53*, 718-726.
- Twenge, J. M. (2001). Changes in women's assertiveness in response to status and roles: A cross-temporal meta-analysis, 1931-1993. *Journal of Personality and Social Psychology, 81*, 133-145.
- Viswesvaran, C., Schmidt, F. L., Ones, D. S. (2005). Is There a General Factor in Ratings of Job Performance? A Meta-Analytic Framework for Disentangling Substantive and Error Influences. *Journal of Applied Psychology, 90*, 108-131.
- Wahba, M. A., & Bridwell, L. T. (1976). Maslow reconsidered. A review of research on the need hierarchy theory. *Organizational Behavior and Human Performance, 15*, 212-240.

- Wood, D., & Roberts, B. W. (in press). Cross-sectional and longitudinal tests of the personality and role identity structural model (PRISM). *Journal of Personality*.
- Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review*, 26, 179-201.

A Neo-Socioanalytic Topographical Model of Personality Psychology

Units of Analysis

Fulcrum of assessment

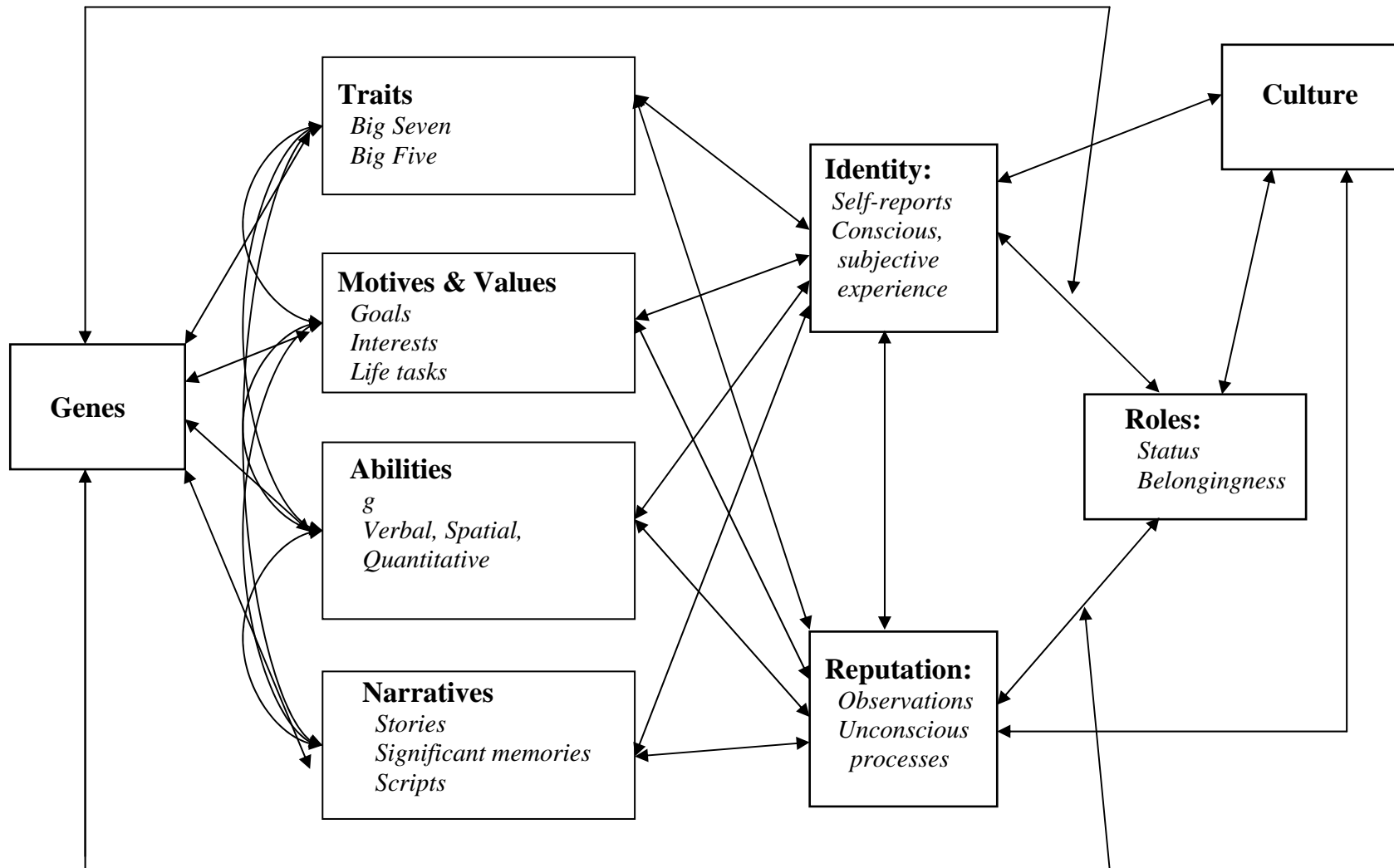


Figure 2

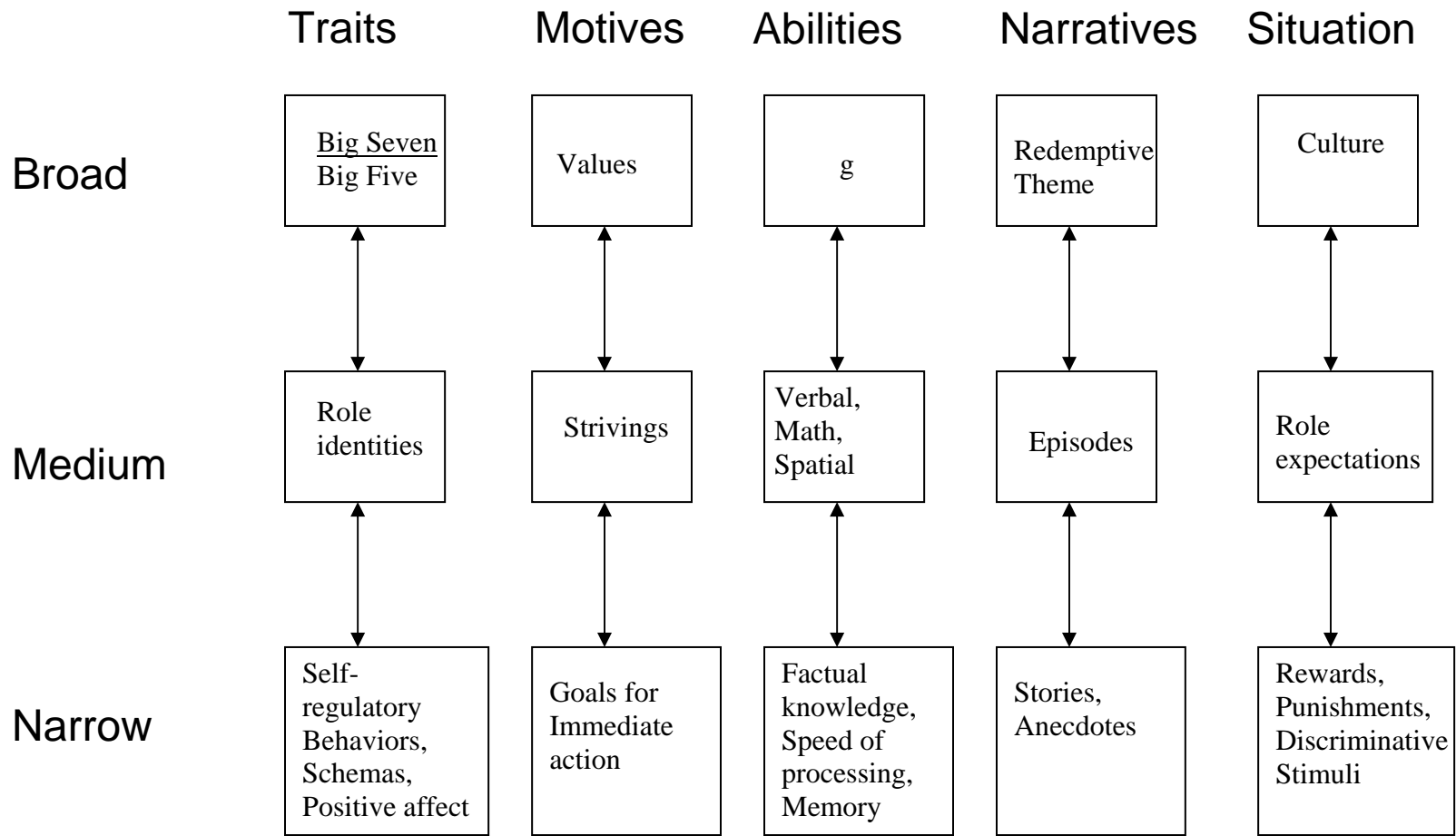


Figure 3

