Blessings, Banes, and Possibilities in the Study of Childhood Personality

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In this commentary I make three points. First, the four articles presented in this special issue are critical examples of the viability and importance of the idea of childhood personality. Second, I identify several concerns, including the narrow scope of the study of childhood personality, the lack of focus on environmental factors that might facilitate development in childhood personality, and the conceptual overlap between measures of childhood personality and outcomes such as externalizing behavior. Third, I recommend that the gap between childhood and adult personality be bridged more systematically so that we can detail the path of development across the life course.

One of the more disappointing experiences I have had as an academic interested in personality development is the time I pulled a standard developmental text off of the shelf in search of the story of how personality traits come to be. This seemed like a reasonable thing to do at the time. The study of personality traits had gained clear traction in the last few decades. We knew that personality traits were consistent across time (Roberts & DelVecchio, 2000). We also knew that they played a significant role in effective functioning in adulthood, prospectively predicting outcomes such as success in work (Judge, Higgins, Thoreson, & Barrick, 1999), relationship satisfaction (Robins, Caspi, & Moffitt, 2000), divorce (Cramer, 1993), family structure (Roberts & Bogg, 2004), and even longevity (Friedman et al., 1993). How could they not be a topic of interest in developmental psychology? If they affect so much of life, we should know how they develop.

Unfortunately, I did not find what I was looking for. Granted, there were sections on temperament and the heritability of psychological factors, but there were—and there continue to be—very few studies linking temperaments in childhood to traits in adolescence or adulthood (the present articles are, of course, an exception). Beyond these relatively simplistic connections, there were absolutely no studies detailing the course of development of something like the trait of conscientiousness from infancy through adulthood. Simply not addressed were questions such as when does it emerge, what are the key facilitating contexts, how much does it change with time and age, and what behaviors, thoughts, and feelings in childhood were isomorphic with adult manifestations of the trait.

In many ways this is a forgivable oversight. Developmental psychology is a diverse and dynamic field that includes the study of social, emotional, and cognitive development in addition to personality development. Moreover, as in many other fields outside personality psychology, developmental psychologists were influenced by the person-situation debate, and especially the early writings of Mischel (1968). The conclusion drawn by many from that debate was that if traits do not exist, then we do not need to study them or their development (e.g., Lewis, 1999).

In our subsequent rush out of the door of the house of personality in the decades following Mischel's writings, we failed to realize a few things. For example, all of Mischel's original arguments about personality traits were either factually or interpretively incorrect. He made three basic claims: first, that traits had limited utility in predicting behavior (the infamous "personality coefficient" of .3); second, that stability was a fiction in the mind of the observer; and third, that behavior was not stable across situations.

In the intervening decades we have found that 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). There is nothing particular about the effect sizes in personality psychology whatsoever. Moreover, psychology has nothing to be embarrassed about. Physicists and medical researchers are typically confronted with effect sizes smaller than ours. We also found that in well-run studies in which different people rated the same person across time and age, stable individual differences did exist (Block, 1993). Therefore, personality was not a semantic fiction of our busy minds. We also found that the original estimates of behavioral stability across situations were underestimated (for evidence and insights as to why, see Borkenau, Mauer, Riemann,

Spinath, & Angleitner, 2004). 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 was immaterial to the viability of the personality trait construct (see Roberts & Pomerantz, 2004). Nonetheless the damage was done, and fields like developmental psychology went on with their research without investigating the nature and development of personality traits.

Developmental psychologists have a final legitimate reason for avoiding the study of personality traits. Most developmental psychologists are interested in development, which by definition includes change. At first blush, personality traits appear to be the last place one would look for change. This, of course, is the final irony for me, as I have spent more than a decade detailing and describing the changes that occur in personality traits in adulthood (Roberts, 1997; Roberts, Caspi, & Moffitt, 2003; Roberts & Chapman, 2000; Roberts & Robins, 2004). If they change in adulthood, one would think that personality traits would change in childhood too.

This brings us back to the current special issue, and the excellent set of research reports contained therein. Clearly, the focus and design of these articles comes out of this historical context, which is both a blessing and a bane. I will detail the blessings first, the banes second, and lastly some possibilities for the future.

The Blessings

This is a diverse set of articles that cover not only key issues in personality development but also utilize innovative techniques and designs, and even cover process mechanisms. Across these four articles one finds many of the strengths of personality psychology, such as the sophisticated and thorough measurement of constructs, the use of multiple methods, person-centered approaches, growth modeling, observer ratings, the combination of survey and experimental techniques, and longitudinal designs.

Topically, each article confronts a significant issue. As I alluded to above, despite the obvious conceptual linkages between temperament constructs and personality traits, there is a paucity of studies linking the two. I first confronted this interesting bifurcation when compiling studies for a meta-analysis on personality stability, which included a review of the stability of temperament constructs. As late as 1999 the distributions of temperament and trait studies were entirely non-overlapping. If a person studied temperament, he or she did not study traits

and vice versa. Moreover, few if any studies had made the empirical connection between the two.

The article by Deal, Halverson, Havill, and Martin (this issue) is a prime example of the type of study that is necessary to fill this void. Not only are childhood impulsivity and inhibition linked to adolescent personality traits, but the patterns are both interesting and theoretically revealing. Impulsive children grow up to be more neurotic, less agreeable, and less conscientious. Inhibited children grow up to be more neurotic, less extraverted, less agreeable, and less conscientious. Consistent with the idea that temperaments should differentiate through experience into more specific facets of personality, we see that each of these core dimensions of temperament is linked to multiple aspects of adolescent personality. Studies like this and those by Caspi and Silva (1995) have now established that individual differences in childhood are not an isolated affair that have no bearing on adolescent and adult personality; rather, they are important precursors for adult personality.

The prospective longitudinal study by Prinzie, Onghena, and Hellinckx (this issue) is a tour de force of exemplary study design. The authors leverage an accelerated longitudinal design and ratings of personality from multiple sources to show that childhood personality traits predict both levels and changes in externalizing behavior over time. Children who are more neurotic tend to experience both more externalizing problems and growth in them over time. Moreover, the parent's personality contributes over and above the child's in predicting level and growth in externalizing activities. Given the importance of externalizing problems for effective social functioning in adolescence, these findings are critical for establishing the validity and importance of childhood personality constructs.

The article by Scholte, van Lieshout, de Wit, and van Aken (this issue) addresses a classic question in personality psychology—how can we capture the person in our data? Despite our habit of examining individual variables across populations, the reality is that personality traits are manifest in profile form within people. Traits do not float away from their owners in individual form to affect decontextualized outcomes. In real life, real people, who are inevitably a composite of multiple attributes, wrestle with the vicissitudes of life. The problem is that we have had a difficult time arriving at an acceptable mathematical approximation of this fact. The types-as-prototypes approach wielded by Scholte et al. is a creative way to do just that. Moreover, Scholte et al. provide us with an update and elaboration on the highly replicable typology of personality traits put forward by others (Robins & Tracy, 2003). And like previous studies, they show that these combinations or

configurations of personality traits are associated with a number of significant outcomes, such as delinquency, self-esteem, and bullying. What I found most interesting was that with the differentiation of the types, one finds rather robust sex differences. Typically, when we examine personality traits variable-by-variable we find very few significant sex differences (Feingold, 1994). When joined in composite form as shown by Scholte et al. rather robust sex differences emerge, with boys falling disproportionately into the oppositional undercontrolling and agentic resilient types and girls falling disproportionately into the vulnerable overcontrolling and communal resilient types. These patterns deserve greater attention in future research.

Finally, the work of Jensen-Campbell and Graziano (this issue) provides insights into the processes that underlie the development and differentiation of the childhood temperamental construct of effortful control. These studies reveal the social and performance mechanisms that help transform effortful control into agreeableness and conscientiousness, respectively. This study exemplifies a more process orientation to personality in which the focus is on the behavioral manifestations of personality. It also helps to dispel a simple-minded misunderstanding of personality, which is that traits should result in monolithically consistent behaviors across situations (e.g., Cervone, Shadel, & Jencius, 2001). Traits affect behaviors in situations that afford opportunities for the specific trait to be enacted (Tellegen, 1991), and the findings in Jensen-Campbell and Graziano's study are a perfect example of this more accurate definition of personality.

In sum, these four studies are interesting and should be lauded for their content and methods. They provide strong evidence for the existence and importance of childhood personality traits, how they are organized within people, and how they most likely develop.

The Banes

Despite the fact that these are state-of-the-art studies of childhood personality, there are three aspects of the research that give me pause. The first reason for my tempered enthusiasm is that these studies do not capture the entire domain of *personality* and suffer from a shortcoming common to adult studies of personality. All too often we explicitly or implicitly equate the study of personality with the study of *personality traits.* Personality traits are only part of the domain of personality (Roberts & Wood, in press). The domain of personality also includes motives, interests, abilities, and narratives as well as the lower-order manifestations of these constructs such as role identities, sche-

mas, affect, and behaviors. What is missing from this special issue and much of the research in childhood personality is the rest of the field of personality psychology. For example, motives have to develop out of something at some point in the life course, and childhood is as good a time to start studying them as any. Also, children show early preferences and interests in activities that are distinct from temperament and personality traits and are most likely the precursors to adult interests. In fact, in a recent study we found that interests reach a high level of stability at a much earlier point in the life course than personality traits (Low, Yoon, Roberts, & Rounds, in press). This finding implies that interests develop more quickly and thoroughly in childhood than do personality traits. If this is the case, then we should be studying the development of interests in childhood, as interests play a significant role in shaping the course of the adult life.

A second area that deserves more attention is the context-driven development of personality. None of the articles in this special issue investigated the environmental factors that might facilitate the development of childhood temperaments and traits. For example, adult self-perceptions of personality can be differentiated into role identities, which are the ways in which people see themselves in specific roles in terms of personality traits (Roberts & Donahue, 1994). Not only do adults organize their self-perceptions in this form, but meaningful differences across social role identities have been found. For example, people tend to see themselves as more conscientious in their work role identity and more extraverted and agreeable in their friend role identity (Donahue & Harary, 1998). Furthermore, there is now evidence that role identities serve a bottom-up function in the development of personality traits (Wood & Roberts, 2004). That is, experiences in specific roles first change role identities, and these changes are then transferred up to the general personality. Similar processes are known to occur in children. For example, attachment patterns sometimes differ dramatically from mother to father (Bretherton, 1985). If we expand our focus beyond attachment, it is likely that we will find similar differential patterns for a variety of childhood personality traits, such that children's personality can be organized within specific roles or role-defined relationships. Thus, the precursors to adult role identities and ultimately adult personality most likely lie in the context-driven sets of relationships that children engage in.

The third issue that causes me concern is one that haunts the study of adult personality. How are personality traits and behavioral syndromes, such as externalizing behavior, different things (e.g., Prinzie et al., this issue)? Aren't personality traits, whether assessed in childhood

or adulthood, composed, in part, by behaviors? This question poses both empirical and conceptual quandaries. On the empirical question, it appears that there is distinct overlap between measures of child-hood temperament and behavioral syndromes, such as externalizing disorders (Lemery, Essex, & Smider, 2002). Fortunately, this overlap does not appear to bias the findings linking temperament measures to behavioral disorders (Lemery et al., 2002).

Nonetheless, the conceptual quandary remains. Typically, it is assumed that traits and temperaments are broad and partially decon-textualized and are therefore more stable over time. In contrast, behav-iors are assumed to be more context-dependent and narrower in con-ceptualization. The only problem is that the latter assumption tends to ignore data like that in the Prinzie et al. article (this issue), where the test-retest stability of externalizing behaviors is higher than most esti-mates of adult personality over similar periods of time. What exactly are these behavioral syndromes?

From the perspective of adult personality, there is potential rap-prochement. Typically, we define personality traits as the relatively enduring patterns of thoughts, feelings, *and* behaviors. So, technically, behaviors make up only a third of the definition of personality traits. In the light of these more refined definitions, behavioral syndromes and traits are not identical. Also, behaviors tend to be overdetermined by numerous higher-order constructs rather than one simple trait. None-theless, the traits we study and the behaviors we predict are almost fully overlapping in intent if not in terms of actual items.

I would offer a hierarchical interpretation of the issue. Behaviors are one aspect of the lower-order manifestation of a personality trait (Roberts & Pomerantz, 2004). So, as the behaviors change so do per-sonality traits. In the context of the study of childhood personality, this issue gets a little stickier. It is difficult to reliably assess the thoughts of an infant or toddler, which leaves observers with only feelings (or affect in this case) and behaviors as a source of variance to judge child-hood temperament/personality. So, even though researchers go to great lengths to eliminate overlapping items, it is difficult to avoid the con-clusion that the only distinction between a measure of childhood tem-perament and a measure of a childhood behavioral syndrome is a few affect items and a different rating scale. I propose that we dispense with the pretension that these are distinct domains and acknowledge that we are studying different aspects of the same phenomenon. It does not preclude examining the relationship, but it does put it in perspective. When we relate temperament to behaviors it is akin to examining the relationship between a global measure of extraversion and one of the

facet scales underlying the domain. We should always expect a moderate to high correlation (e.g., between .3 and .5).

Although these are state-of-the-art studies in childhood personality, there remains more to do. Broadening the scope of the definition of childhood personality, actively incorporating the social context into future research on childhood personality, and clarifying conceptual conundrums would go a long way toward making the story of childhood personality development more complete.

The Future Possibilities

My negative comments notwithstanding, I do believe that much progress has been made in the study of childhood personality/temperament that should be heralded. Definitive research on the taxonomy of temperament and childhood personality is now reaching a more mature level (Shiner, 1998; Shiner & Caspi, 2003). Moreover, insightful research on the mechanisms that promote patterns of temperament over time constitute some of the most interesting and exciting areas of developmental research (Kochanksa & Knaack, 2003; Rothbart, Ellis, Rueda, & Posner, 2003).

But, like the research captured in this special issue, the predominant perspective is that childhood temperament and personality traits are entities that need explanation and which affect life outcomes. This assumption is reflected in the questions and methods in the typical childhood personality study, which predominantly pursue questions such as does childhood personality predict adult personality, or does childhood temperament affect subsequent externalizing behaviors. Even research that takes a more developmental approach tends to investigate how children come to acquire a certain standing on a temperament (e.g., Kochanksa & Knaack, 2003; Rothbart et al., 2003). To date, the research on childhood personality has failed to view traits and temperaments as developmental constructs and has thus failed to examine how they change with time.

In the context of an intellectual climate in which some still question the existence of stable individual differences in either childhood or adulthood, this perspective is quite reasonable. The validity of temperament or childhood personality must be established before we move on to the second line of questions about their development. Nonetheless, to remain focused on the stability of childhood personality and its sequelae is arbitrarily limiting the potential integration between childhood personality, adult personality, and the prevailing wealth of research in developmental psychology focusing on socialization processes and mechanisms of change.

What I propose is a synthesis of research on childhood personality and the more common research on factors that affect change in personality in general. This synthesis is predicated on the following assumptions. All personality dimensions are partially driven by genetic factors (Plomin & Caspi, 1999). Moreover, genetic factors will be enacted in conjunction with enabling environments (e.g., Caspi et al., 2002). That is, most manifestations of personality are the result of gene-by-environment interactions, which makes the study of the environment paramount for understanding personality traits and personality development. Finally, these genetically initiated individual differences show robust changes not only in childhood but also in adulthood, and these changes come about through transactions with the environment that are mediated by social and intrapsychic mechanisms (Roberts & Wood, in press). Finally, to understand these patterns of development and person-by-environment transactions we need to take a long view of development and examine people as they progress from childhood through adulthood.

These assumptions open up interesting possibilities for future research. For example, in terms of the development of effortful control (e.g., Kochanska, Murray, & Harlan, 2000) and ultimately the fully formed personality trait of conscientiousness, rather than asking why certain children are more impulsive than others, we can examine the seemingly universal trends for most children and young adults to become less impulsive with age. For example, there are clear developmental patterns in the cross-sectional data presented in the Prinzie et al. article (this issue). Externalizing behaviors drop precipitously between the ages of 4 and 9. One likely reason for this drop is the development of conscientiousness and its precursors in childhood. However, because the authors of this study and others like it do not assess childhood personality longitudinally, we cannot tell whether this is the case.

If personality traits are regarded as developmental phenomena, then the approaches to studying them change also. Take the Prinzie et al. study (this issue) as an example. If childhood personality traits were included at each wave of assessment, then the transactions between the developing personality of the child and the behaviors that they exhibited could have been tracked. It could be that the changes in behavior are a cause of changes in personality traits themselves. For example, we have found that simple behaviors in adulthood like smoking tobacco or marijuana are associated with changes in personality traits in young adulthood and midlife (Roberts & Bogg, 2004). It makes sense that similar patterns would be found in childhood, but we need to look for them.

Another possibility would be to systematically test mechanisms thought to facilitate the differentiation of childhood temperament into adult personality. For example, the mechanisms examined in the Jensen-Campbell and Graziano study (this issue) could be embedded in a longitudinal context. Achievement experiences and the experience of different performance standards could be examined over time to see whether they accelerate the development of conscientiousness. Similarly, it must be the case that cognitive development plays a role in personality development. The ability to hold abstract principles or see another person's perspective would seem to be necessary cognitive functions for the development of full-fledged personality traits like conscientiousness and agreeableness (e.g., Symons, 2004).

In sum, these articles provide an excellent grounding in the current perspectives on personality traits and their development, but they are only a start. We need more research focusing not on the importance or continuity of childhood personality, but on the patterns and processes of the development of personality from childhood through adulthood. My wish is that in a few years I will be able to pull a standard developmental text off the shelf and see the next generation of research in which a more complete connection between childhood and adulthood personality is described and the full story of the development of childhood personality is more satisfyingly depicted.

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