Excurs: A Lifespan Perspective of Personality Development

The stability vs. change debate in personality psychology is, in some respects, an empirical quagmire. As this excurs into the debate shows, personality seems to exhibit both stability and change over the lifespan. To be sure, a number of the arguments that support the notion of stability appear to have conceptual deficits. It is hypothesized that certain features of one's personality are likely to change in later life; to be specific, age-related disability is hypothesized to influence trait dependency.

1. The Great Debate: Stability vs. Change in Personality Across the Life Course

1.1 Evidence of Stability

In 1990, McCrae and Costa (1990) published an influential book on the stability of personality in adulthood. They proposed a more level-headed look at personality in adulthood, taking issue with the attractive but facile notion that people grow and change, that they adopt different values and perspectives on life, even becoming wiser and more worldly as temperament cools with the years. Instead McCrae and Costa maintain that whether or not personality changes over the life course is a matter best left to empirical verification.

Early chapters of the book review cross-sectional studies on age differences in personality. Although some evidence of differences in various age groups exists, the review fails to find strong, consistent evidence of change on any dimension (with the possible exception of introversion). The current literature is then reanalyzed using the 5-factor model of personality, which includes the dimensions of neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. According to McCrae and Costa's interpretation of numerous findings from the field, only two cross-sectional differences can be identified: extraversion appears to be slightly lower, and agreeableness slightly higher, among older groups. Interestingly, low agreeableness has been related to heart disease, and extraversion, to more liberal childrearing practices. Thus, selective mortality and cohort effects are plausible explanations for the age differences observed. However, the authors stress that aging per se doesn't appear to have any effect whatsoever on personality.

Research on the longitudinal stability in personality is then presented. Again, evidence for personality change, it is argued, is scant. In the Normative Aging Study (Costa & McCrae, 1978), only age-related change in social independence was identified over a ten-year interval. Another study (Douglas & Arenberg, 1978) found maturational declines in activity level and masculinity. But because some of these effects were small or could not be replicated in later studies, McCrae and Costa find the results to be inconsequential. In conclusion, they state: "The moral seems to be that so many factors -- sampling, cohort differences, practice effects, time of measurement artifacts, selective mortality -- affect results that most so-called aging effects are probably spurious (p. 71)."

Perhaps the most compelling evidence provided in the book comes from closer examinations of correlational stability in individuals, not mean level differences between groups. Here, the authors are able to draw from eight longitudinal studies, employing a wide variety of instruments and a retest interval of 10 to 30 years. The stability correlations observed were quite consistent and robust, generally between 34 and .71, which could be classified as moderate to strong effects. Over shorter intervals (e.g., six years), even stronger stability was observed; median correlations for the Big Five were between .55 and .87 (Costa & McCrae, 1988).

Most other authors have not found this level of stability in personality (see Bengston, Reedy and Gordon, 1985 for a review), but the evidence has still been compelling enough for others to probe further. Are some *constructs* more stable than others? Are some *persons* more stable than others? With regards to the latter, Finn (1986) examined whether personality becomes more stable with age. The study compared two samples of men, 78 older ones (mean age of 45 years) and 96 younger ones (mean age of 21 years), using the Minnesota Multiphasic Personality Inventory. Correlational coefficients were calculated between test scores in 1947 and 1977 (i.e., over a 30-year interval). Stability was clearly and consistently higher in the older sample; five of the 17 personality dimensions assessed showed significantly higher correlations among the older men. Here too, the author entertains the idea that selective mortality might have led to such stability -- a very plausible explanation, given that half of the measures were strongly clinical in nature (e.g., "Psychotic Paranoia" and "Phobias").

In sum, there is substantial evidence that personality, as defined and operationalized in standardized instruments, shows remarkable consistency across the lifespan. Before I proceed

any further, however, one caveat is in order: Although McCrae and Costa have long championed the notion that personality is inherently stable, they may have begun adopting a new perspective. Some of their recent work clearly signals an interest in developmental change, i.e., complementing the view of basic temperaments with the "intrinsic maturation" of personality (McCrae & Costa, 2000). With this in mind, let us now turn to evidence of personality change across the lifespan.

1.2 Evidence of Change

In the interests of maintaining the coherence and brevity of this section, my discussion of personality change across the lifespan will limit itself to investigations of *personality traits* among the young and old. This excludes, for example, a study by Haan, Millsap and Hartka (1986), in which 325 individuals were assessed over a 50-year interval using a Q-sort technique. In this study, personality was not assessed via self-report, but via ratings of behavior made by expert judges. Similarly, a study by Whitbourne, Zuschlag, Elliot & Waterman (1992) is excluded because it examines personality constructs that are based upon a model of psychosocial development. The study employed the IPS, an index of personality functioning based on Erikson's stage theory, in a sample of 337 subjects over three waves of longitudinal assessment. Studies such as these often demonstrate substantial and measurable change in personality. Strictly speaking, however, they do not investigate changes in personality traits.

A review of change and stability in personality is offered by Bengston, Reedy and Gordon (1985). One excellent characteristic of the review is its careful differentiation between four kinds of stability (structural, mean level, correlational, and ipsative). It systematically orders existing research on the self into different categories, depending on which component of the self (cognitive, affective, conative) is emphasized. Personality scales, it is argued, assess the cognitive component of the self, and the main findings from 17 studies using such measures are presented.

Although Bengston et al. review many of the same studies examined by McCrae and Costa (1990), they arrive at very different conclusions. Bengston et al. concur that most constructs, especially neuroticism and extraversion, show considerable correlational stability. However,

mean level stability is by no means evident. Some of these differences appear to be due to maturational processes, but more appear to be due to cohort differences. In particular:

"Studies of mean-level change or stability in personality-related self-conceptions give evidence of stability in variables reflecting neuroticism and extroversion (but with small increases in neuroticism and decreases in extroversion at advanced ages); of increases in autonomy, self-competence, and self-confidence from young adulthood into at least middle age; of decreases in energy perhaps as early as the 40s; and of increased differentiation of traditional sex differences in personality with increasing age (p. 572)."

Clearly then, some age differences in personality can be readily observed. The review offered by Bengston et al. shows that a more differentiated understanding of the kinds of possible change and kinds of constructs employed is warranted. Viewed from this perspective, the wealth of information gathered over the last few decades points to evidence of change, as well as stability, in adult personality.

Of particular relevance to the present endeavor, of course, is cross-sectional and longitudinal research on *trait dependency*. In fact, the review included three studies that employed measures of succorance or dependency needs (Ahammer & Baltes, 1972; Reedy, 1982; Bray & Howard, 1983). Only one of the studies found age differences in trait dependency, or significant differences in mean level scores between older and younger cohorts. Bray and Howard found trait dependency to decrease across early to middle adulthood in a longitudinal study of 266 males. These findings are largely in accord with the norms that have been developed for later versions of the *Succorance* scale (Stumpf et al., 1985). Reedy (1982) found higher succorance scores among older women compared to older men, which might reflect adherence to traditional sex roles.

More recently, change in personality was examined in 177 subjects aged 29 to 45 years using the *Edwards Personal Preference Schedule* (Stevens & Truss, 1985). Here too, stability and change were observed. Maturational increases in achievement, autonomy, and dominance, as well as decreases in affiliation and abasement were reported. Deference, order, exhibition, succorance and endurance remained largely stable over the longitudinal interval. However, differentiation on the basis of gender showed that women exhibited maturational decreases in succorance. One of the study's further goals was to examine the effects of biographical variables, including education, occupational status, and marriage, on personality. Unfortunately, the authors did formulate specific hypotheses, or test them across a

longitudinal interval. The coarse distinctions thus made (e.g., between married and unmarried persons) did not identify differences in personality between comparison groups.

This failing is typical of most empirical research on personality change across the lifespan. Very few studies attempt -- before any data whatsoever has been collected -- to theoretically predict exactly *which* personality dimensions should change and *why*. Wink and Helson (1993) are one notable exception. The authors examined how age-graded shift in roles, specifically the early parenting and late parenting phase of adulthood, influenced personality in a longitudinal study of 82 women and their partners. Specifically, the role of wife and mother was hypothesized to be associated with more emotional dependency, which might decrease once the children had moved out and the mother had found work. In fact, the women in the study did become more goal-oriented, self-confident, and independent over time; however, the decline was observed regardless of whether they had children or enjoyed a high level of status at work. Note the unconventional, yet critical design element of this study: the longitudinal interval was defined in terms of *pre*- and *postparental stages of development*, not some arbitrarily chosen number of years. Thus, the study tries to frame personality in terms of age-relevant situations in the life course (Caspi, 1987).

1.3 Summary

There is evidence of both stability and change, depending largely upon the construct under investigation, the instrument used, the length of the observation interval, and the kind of stability examined. Unfortunately, virtually all of these studies restrict their analysis to the personality changes that occur in young to middle adulthood. It would therefore be interesting to extend this research into very advanced age. As Aldwin and Levenson (1994) contend "... there are intriguing hints in the literature that change occurs even in very late life, and more research is needed to examine the nature of that change (p. 202)."

2. Interpretation Difficulties, Methodological Miscalculations and Conceptual Fallacies in the Exploration of Stability of Personality Across the Lifespan

The debate regarding the stability of personality over the lifespan is marked by no small amount of controversy regarding what constitutes stability. In the following, these difficulties in interpretation are discussed. Two further issues, which appear to have been largely overlooked, are then presented. First, there are indications that the instruments used in this field of research may be eminently unsuitable for assessing most kinds of developmental change. Second, and perhaps more importantly, theorists have yet to furnish a theoretical explanation for the stability observed using these measures. These issues are addressed below.

2.1 Interpretation Difficulties

a) absolute vs. relative stability

Stability in personality can essentially refer to two kinds of stability, absolute stability and relative stability (Wrightsman, 1992). A person who scores a 97 out of 100 points on a personality measure at the first assessment point and receives the same score at the second assessment point has demonstrated absolute stability over the interval. His or her mean level has not changed at all. However, one might interpret stability to mean that a person's personality score at the first assessment point correlates highly with the score obtained at the second measurement point. This is a measure of relative stability. Note that relative stability does not identify increases or decreases in individual scores across the interval. That is, if every subject's score drops by the same amount across the assessment interval, the correlation coefficient will show perfect stability. It is crucial to understand, however, that these kinds of fluctuations are precisely what the developmental psychologist is looking for, i.e., they are likely to reveal the maturation of personality over time.

Mean level and correlational analysis each has its pitfalls (Stevens & Truss, 1985). Mean level analysis fails to detect individual changes, i.e., the mean level can remain the same even when individual scores fluctuate wildly. Correlational analysis does not detect absolute change in the characteristic and neglects nonlinear trends. Hence, a methodologically sound analysis must examine both absolute and relative stability.

b) half empty / half full dilemma

As mentioned earlier, a number of studies have been able to report relative stability in personality dimensions, or a bivariate correlation in scores across assessment intervals of considerable length. To be fair, one must point out that such correlations, even when highly significant, are not in themselves absolute evidence of stability. A correlation of R=.70, for example, only explains 50% of the variance in the personality measure. There is no firm rule regarding how much variance must or should be explained in order to confirm its stability across the observation interval. In other words, explaining 50% of the variance in a personality measure still leaves half of the variance unexplained.

McCrae and Costa (1990) contend that the amount of error inherent to personality measurement should be eliminated in order to reveal the stability of the true score. By dividing stability coefficients by the short-term reliability of the measures employed, they were able to show that 12-year stability coefficients of .80 to 1.00. This sounds impressive, but actually, the conclusion rests upon the notion that short-term reliability is always better than long-term reliability. As McCrae and Costa themselves state, "We cannot expect to find high correlations over a period of years if we do not observe them over a period of days (p. 97)." Unfortunately, this has not always been the case (see *The Reliability of Personality Measures Across Time*, below).

2.2 Methodological Miscalculations

To a considerable extent, observed stability in personality may be due to the way instruments designed to measure it have been constructed. Interestingly, the process of developing a personality measure involves continued refinement until it has been rendered insensitive to certain kinds of change. Two of these are described below.

a) the reliability of personality measures across time

One of the hallmarks of a good personality measure is sufficient reliability. A very common method of ensuring reliability is to retest the same individuals after a certain interval, i.e., retest reliability. In other words, the personality measure is administered once and then again

at some later time point. By using this criteria of test reliability, however, the developers of personality scales have virtually assured themselves of some measure of temporal stability. Having created a measure using retest reliability criteria, it would be rather silly to express surprise over the fact that the measure is indeed stable over time.

Of course, because the test-retest interval is usually short, this argument must be tempered somewhat. It is one thing for a personality dimension to be stable over one year, and quite another for it to demonstrate stability over 20 years. Still, because these measures are designed to maximize temporal stability, one must concede that they are purpose-built to withstand fluctuations over any interval, no matter how long.

Interestingly, in a study with the Guilford-Zimmerman Temperament Survey (Costa, McCrae & Aronberg, 1980), correlation coefficients over a 12-year interval were actually *better*, in some instances, to the test-retest reliability reported for the measure in question. This finding has serious implications. There is no conceivable way that short-term reliability can be *higher* than long-term reliability; stability simply *must* erode over time. Findings such as these cast doubt on the validity of the measure employed.

b) the generalizability of personality measures across age groups

Personality questionnaires undergo continual refinement until the instruments have demonstrated their applicability to a wide range of individuals. An implicit assumption of the differential approach is that people of all colors and from all walks of life can be measured using the same personality instruments. This simple premise has far reaching consequences for the stability of the construct being measured.

Consider the following example. A psychologist sets out to create a scale to measure extraversion. Naturally, the scale should be applicable to a broad range of people, including men, women, old folks and young ones, Blacks and Whites, Asians as well as Europeans, liberals and conservatives, religious persons and atheists, etc... Defining extraversion in terms of the proclivity to socialize with others, the psychologist goes about formulating an item to reflect this dispositional tendency. The item reads "I'd rather attend a football game than stay at home with a good book." After a moment's thought, he decides to discard this item on the basis that it probably wouldn't differentiate well enough between extraverted and introverted

women. After all, women seldom attend football games. The item is struck from the record and promptly forgotten.

This practice is commonplace (and to some extent, justifiable) in the creation of personality scales. However, one must realize that by discarding such items, one necessarily obscures a real difference in the behavior of men and women. Namely, men go out to football games; women don't. This kind of psychometric refinement thus masks many important differences between men and women, the young and the old, indeed, the whole gamut of individual categories that describe persons.

To understand the point, one must realize that personality questionnaires are not geared specifically toward identifying gender differences. If the investigator really wanted to uncover personality differences between men and wo men, he would *retain* not *discard* items that clearly differentiate between them. He would also look at slightly different constructs (such as aggression, nurturance), asking questions like "Is it sometimes acceptable to resolve conflicts with one's fists?" and "Do you enjoy feeding children?" Men and women are socialized to fulfill different roles, to be differentially aggressive and nurturing, and it is plausible that these tendencies will be reflected in their personality.

Now, what about aging? Upon reflection, personality questionnaires are not geared specifically towards identifying age differences either. In the study of human development, an item that reads, "I like to stay out late at night" or "I like to drive really fast" would have to be dropped from a standardized personality questionnaire on the grounds that older persons, due to social sanctions, sensory limitations or personal beliefs about what is appropriate behavior, are less likely to do so. This item must be systematically eliminated from the questionnaire, if it is to be "applicable" to the broadest possible spectrum of society.

Instead, the investigator opts for formulations that can be applied to all phases of the lifecycle, i.e., items such as "I frequently go out with friends." This statement is held to be applicable to both young and old alike. However, a young man might consider going out every other night to be "frequent," whereas twenty years down the road, with two kids and a wife at home, he judges going out once a week to be "frequent." Clearly, the behavior has changed -- more importantly, going out with friends might even have become less a priority for the older subject. *Note, however, that the personality measure will not detect this change.* The

systematic elimination of "narrow" items has rendered the instrument insensitive to the individual difference it was supposed to measure. In short, an item that tries to say a little bit about everyone ends up saying very little at all.

Aldwin and Levenson (1994) point to the fact that very little research has examined the validity of personality tests for the elderly. They relate, for example, that "many personality scales are developed on college-aged populations, and the items may not be germane to an older person's experience ... However, using items which are specific to an older population's experience may render generalization across the life span problematic (p. 184)."

In short, if a personality measure has been constructed so that it will be applicable to all individuals, young or old, then it very probably obscures *age differences*. Age differences not only reflect cohort effects, but also maturational ones, i.e., *age changes* that occur over time. Thus, most standard personality measures are not ideal for investigating whether personality remains stable or changes across the lifespan.

2.3 Conceptual Fallacies

a) the definition of personality

Before proceeding with the more challenging obstacles in the stability vs. change debate, a pillar to which many adherents of stability fervently cling must be dismantled. In short, personality can be *defined* as being inherently stable. It is common to refer to a personality trait as a characteristic manner of responding that is acquired in early childhood and changes little over time. However, if this proposition is *a priori* true, then obviously, the stability issue cannot be settled by empirical means. As an old college professor I knew was fond of saying, "He who defines the term wins the argument." Any theorist who defines personality as being a stable or enduring aspect of the self wins the stability vs. change debate, though he does so cheaply. More importantly, he must abandon all hope of objectively resolving the issue by assessing personality across the lifespan.

In this context, one should note that even the stalwart defenders of the stability of personality (e.g., McCrae & Costa, 1990) have in fact empirically examined change in personality over

time. Thus, they have implicitly acknowledged that personality can, from a purely theoretical perspective, change over the lifespan.

b) the lack of theoretical explanations of stability

Empirical evidence only goes so far in settling the present debate. As Aldwin and Levenson (1994) astutely observe:

"Obviously, statistical techniques alone, no matter how elegant, are inadequate to determine the existence of change or stability in personality in adulthood. The need for sound theoretical bases for explaining personality change and stability in adulthood is manifest (p. 185)."

Change and stability have been largely understood in terms of the self, not personality per se (e.g., Bengston, Gordon & Reedy, 1985). In a discussion of the resilience of the aging self, Carstensen and Freund (1994) note that well-being and life satisfaction remain relatively stable over time, despite the fact that the elderly, at least relative to younger persons, more often suffer from poor health and bereavement. They then contend that "it is somewhat ironic that theories [of successful aging] have been developed to explain null effects [in well-being] (p. 85)." I strongly disagree: stability under these circumstances is nothing short of miraculous and thus, clearly worthy of study. In a rejoinder to the original article, Brandtstädter and Greve (1994b) have put it more eloquently:

"One might as well argue that biologists would not be moved to attempt to explain how the living cell perpetuates itself, sociologists would not be moved to ask how cultures maintain themselves, and physicists would not be interested to specify conditions of stability in atoms or stars ... Simply repeating that there is no change in certain measures of self-esteem or well-being, in our view, is not an explanation, but begs the question. Research on life satisfaction in the elderly has been critiqued for a lack of theory ... we consider this a valid criticism (p. 98)."

Our knowledge of human aging will not advance by the mere agglomeration of data. One must go on to explain, in theoretically coherent terms, why personality -- in all of its glorious variations and in all persons and despite the many myriad changes that accompany growing old -- remains immutable over the lifespan.

This is a premise, which, upon closer examination, is simply untenable. Aging fundamentally changes who we are. There are bodily changes from head to toe. With the passage of time, we become less attractive, we lose a great measure of our physical strength and agility. We grow up, get jobs, settle down, perhaps marry and have children. Some experience financial boom, others bust. Almost all of us experience serious injury and illness at some point in our lives, or witness a loved one die. Do these events leave us untouched? Aren't we changed, sometimes in fundamental ways, by the experiences of our lifetimes? In fact, can anyone possibly stay the same person they were 20 years ago?

Some theorists, mostly those who ascribe to a trait definition of personality, are comfortable with the idea that attitudes, control beliefs, or life philosophies can change over time, but maintain that traits are immutable and enduring (McAdams, 1995). What they don't state is why. Personality measures are not greatly different from scales that measure attitudes or beliefs. They reflect the basic ways that people view the world and interact with their environment, and adaptation would seem to require personality development to be innovative and responsive (Caspi, 1987; Haan, Millsap and Hartka, 1986). In short, there is no reason to expect personality to remain stable while other important aspects of a person's physical, biological, and social functioning show demonstrable variation across the lifespan.

2.4 Summary

The stability vs. change debate has been described as an empirical quagmire, much akin to the nature vs. nurture feud in personality psychology (Lachman, 1986). It is perhaps time to recognize that the two positions are not mutually exclusive. Lachman contends that we need to focus on other questions, such as "Under what conditions does personality show stability and change? What are the antecedents and consequences of stable and changing personalities during the aging process (p. 168)?"

Similarly, Aldwin & Levenson (1994) conclude that:

"A question which no longer needs to be addressed is whether personality changes or is stable across the life span. The studies of personality traits reviewed here clearly demonstrate moderate stability, coupled with maturational changes as well as cohort differences in the distribution of personality traits (p. 202)."

In keeping with this view, I have tried to illustrate a number of fallacies associated with the view that personality is or must be stable across the lifespan. The most damning assertion that can be made, is that even *were* the stability of personality to be empirically confirmed, researchers would still have to furnish a theoretically coherent explanation for *why* this stability occurs. The field of developmental psychology has documented the myriad ways that aging changes persons, in terms of biology, social relationships, and individual experience. It is highly doubtful that these changes should affect virtually every aspect of the individual, yet leave one's personality untouched. Until stability theorists can produce a satisfactory rejoinder to this statement, no amount of empirical evidence should convince a rational person otherwise.

3. Change in Personality in Later Life: Physical Dependency and the Dependent Personality

Up to now, we have been concerned with how the process of aging might influence personality. The arguments above have been formulated in very general terms, with the intent of demonstrating that personality change is, at the very least, theoretically possible. But if one were interested in testing the hypothesis that personality can change, where should one begin?

Caspi (1987) suggested that: "To explore personality across time and circumstance, one must be psychologically, sociologically, and historically minded; one must have a way of thinking about people in their changing environmental contexts (p. 1203)." Unfortunately, most studies are content to investigate change in personality over time, without specifying the environmental events or causal antecedents of that change (Stevens & Truss, 1985). Haan, Millsap and Hartka (1986) observe that "If personality is fluid, innovative, and adaptive, then it logically follows that changes should occur when people confront definitive experiences of clear, unalterable consequence (p. 230)."

Thus, the first step would be to identify a life-altering event that might trigger a change in personality. The second would be to identify a personality dimension that might be sensitive to such change. The following thought experiment might prove instructive:

Consider an outgoing, sens itive man who has been marooned on an island. This is obviously a life event of enormous significance. The years spent upon a deserted isle in the middle of the sea would likely change him in fundamental ways. Misfortune of this magnitude might awaken a hopelessness and a bitterness in him. On the other hand, our castaway might learn how to become more self-reliant, and by overcoming adversity, come to discover a deep-seated courage and trust in his abilities. He might become religious or an atheist -- who can say? -- but certainly, his outlook on life, *who he is*, will change.

What standard personality dimension might be sensitive to this change? Extraversion, perhaps. A principle component of extraversion is the desire to associate with others. No one can survive on an island for years without learning how to live in solitude. Integrating oneself into society after years of total isolation cannot be an easy task. Hence, despite the castaway's initial "outgoing, sensitive" nature, we would expect him to be something of an introvert when he is rescued.

Investigating change in developmental contexts is no different from the illustration presented above. The first step is to identify an *age-graded process* or *event* of such sweeping proportions that it might fundamentally change who one is. Role shifts, especially those that entail changes in responsibility, freedom, or status, may be particularly salient in this regard (Wink & Helson, 1993). Finishing school, getting married, or having a child are examples of major life transitions that might significantly change the personality of young adults (e.g., in terms of conscientiousness or neuroticism). With regards to the older adult, retiring or becoming a grandparent might make them more sociable or nurturing. In terms of the present study, I would argue that a precipitous drop in functional health, one that places the elder in a caregiving context, is another age-graded event that fundamentally alters one's way of life.

The second step would entail finding a personality dimension that is likely to be affected by the age-graded process identified. I submit that there is no more likely dimension to be affected by *physical dependency* than *trait dependency*. Trait dependency, as we have seen, refers to the individual's proclivity to seek help and reassurance from others. It stands to reason that an individual who needs help will, over the years, become more accepting of it. Being able to acknowledge that one is dependent, to feel comfortable with receiving help, would certainly appear to be a natural and adaptive part of coping with age-related disability.

Similar to the case of the castaway, one would expect the influence of disability on personality to become entrenched over the years. Among the disabled elderly, the prospects of recovering full autonomy are by no means assured. Normative expectations, including age-related stereotypes, ameliorate the stigma of being dependent or asking for help in very advanced age. All of these circumstances should, theoretically, work to facilitate the transformation of one's identity from a wholly autonomous to a relatively dependent state of being.

For these reasons, it seems plausible that age-related disability, such as is manifested by the elderly care recipient, represents a specific ontological influence on personality.