

# 9 The Cumulative Continuity Model of Personality Development: Striking a Balance Between Continuity and Change in Personality Traits Across the Life Course

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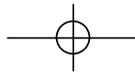
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## **Abstract**

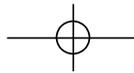
Research has shown that personality-trait consistency is more common than personality-trait change and that when personality-trait change occurs, it is seldom dramatic. This finding results in a theoretical dilemma, for trait theories provide no explanation for personality change. Alternatively, most theories of adult developmental focus on change but not change in personality traits. To address this theoretical oversight, we first describe the mechanisms that promote personality continuity, such as the environment, genetic factors, psychological functioning, and person-environment transactions. Then we describe the counterpart to continuity, the mechanisms that facilitate personality change, such as responding to contingencies, observational learning, learning generalization, and learning from others' descriptions of ourselves. We argue that identity processes can explain both the mechanisms of continuity and change and form the basis for a theory that explains the empirical findings on personality-trait development over the life course. Specifically, we make the case that the development of a strong identity and certain facets of identity structure, such as identity achievement and certainty, are positively related to many of the mechanisms that promote personality continuity. Furthermore, we argue that one unintentional consequence of identity development is to put oneself into contexts that promote personality change, such as new roles or a different circle of friends.



Over the last several decades, the topic of personality-trait development has led a quixotic existence that paralleled the fortunes of the field of personality psychology in general. With Mischel's (1968) behaviorist critique of traits, the study of personality-trait development was left focused on social and environmental causes of both consistency and change. It was common in the late 1960s and early 1970s for authors to assume that traits were not consistent and, if they were, to attribute all of the consistency to environmental consistency (e.g., Nesselrode & Baltes, 1974). In the ensuing years, numerous longitudinal studies of personality yielded impressive evidence for the continuity of personality, and the field moved rapidly past the moderate position that there is both continuity and change in traits in adulthood (e.g., Kogan, 1990), to the extreme position that personality traits become "fixed" in young adulthood and remain unchanging thereafter (McCrae & Costa, 1994). This "strong stability" position precludes the idea that personality traits continue to develop in adulthood and, if accepted, effectively preempts the study of adult personality-trait development altogether.

Neither the extreme environmental argument nor the strong stability argument is justified given the empirical evidence. For example, despite the impression given by Mischel's (1968) critique of personality traits and the ensuing person-situation debate (Kenrick & Funder, 1988), the evidence for the consistency of personality traits across time was always compelling. As long ago as 1941, Crook compiled data from six longitudinal studies showing that trait consistency averaged above .80 over several weeks and dropped to around .50 after six and a half years. Subsequent reviews using anywhere from 20 to 152 longitudinal studies of personality consistency have replicated Crook's findings (Conley, 1984; Roberts & DelVecchio, 2000; Schuerger, Zarrella, & Hotz, 1989). Studies of the longitudinal consistency of traits also have shown that one of the most profound moderators of consistency is the age of the sample being studied (Caspi & Roberts, 1999; Finn, 1986; Roberts, Helson, & Klohnen, 2002). For example, in a review of 152 longitudinal studies, Roberts and DelVecchio (2000) showed that estimates of personality consistency (unadjusted for measurement error) increased from .31 in childhood, to .54 during the college-age period, to .64 at age 30, and then reached a plateau near .74 between ages 50 and 70 (over an average span of seven years).

Complementing the robust evidence for the relatively enduring nature of personality traits is the evidence for change in personality continuing well past young adulthood. Studies that examine change in personality traits find an increase or decrease in mean levels across most age periods (Dudek & Hall, 1991; Field & Millsap, 1991; Finn, 1986; Helson & Moane, 1987; Leon, Gillum, Gillum, & Gouze, 1979; Nilsson & Persson, 1984; Roberts, Helson, & Klohnen, 2002; Stevens & Truss, 1985). Furthermore, individual differences in personality-trait change exist at most ages (Jones & Meredith, 1996) and are related to life experiences in young adulthood (Pals, 1999), midlife (Roberts, 1997; Roberts & Chapman, 2000), and old age (Tower & Kasl, 1996). It should be noted that the effect sizes associated with trait consistency usually exceed .50, while the effect sizes for mean-level change and individual differences in change are much smaller in magnitude.

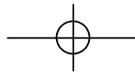


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The picture that emerges from the longitudinal evidence for personality development leads to several conclusions. First, personality traits are highly consistent compared to other psychological constructs and are exceeded in consistency only by measures of cognitive ability (e.g., Conley, 1984). Second, personality consistency increases with age and yet may never reach a level high enough to indicate that personality traits stop changing. Third, according to mean-level and individual-difference approaches, personality change can and does occur even into old age. The picture one draws from the empirical data seems eminently reasonable: personality traits increase in consistency as people age, reaching levels that are quite high but not so high as to rule out the possibility or reality of meaningful shifts in traits over time.

Unfortunately, this temperate perspective on personality-trait development across the life course is not captured well in the existing theories of personality and adult development. In his review of personality and aging, Kogan (1990) highlighted three theoretical approaches to personality development. The first model is the *classical psychometric theory* or *trait model* of personality development (see also Conley, 1985). According to this perspective, traits remain so stable in adulthood that they are essentially “temperaments” and are impervious to the influence of the environment (e.g., McCrae & Costa, 1994; McCrae et al., 2000). The second model, termed the *contextual model* (Lewis, 1999), reflects the perspective that personality traits are shaped by environmental contingencies often contained within social roles (Brim, 1965). This perspective emphasizes the flux and change of personality and can only assume that personality consistency results from the consistency of social environments—a relatively weak and primarily untested argument. The third model is centered on the *stage theories* of Erikson (1950) and Levinson (1986), both of whom emphasize the change and emergence of specific life tasks and associated crises at different ages. This perspective essentially ignores personality-trait development. Taken separately, each of these three perspectives on personality development is lacking in some fundamental way. Classical psychometric trait theories beg the question of developmental process by defining personality as only that component of human nature that does not change—in our opinion a small and possibly uninteresting portion of human nature. Contextual models choose to ignore the genetic and psychological mechanisms that promote continuity and provide often overly optimistic perspectives on the mutability of personality (see also Cloninger, this volume). The stage models of adult development focus on important topics—the development of social roles and identity—but fail to incorporate these ideas with the prevailing evidence that differences in personality exist and are stable despite or because of development of social roles and identity structures.

We would add the *lifespan development approach* as a fourth model, which proposes a dialectic between consistency and change over the life course. The lifespan perspective comes closest to approximating the empirical picture of personality-trait development in that it specifies quite clearly that people are open systems and that they exhibit both continuity and change in personality throughout the life course (see



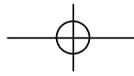
also Lerner, Dowling, & Roth, this volume). Furthermore, according to the lifespan model, the effects of psychological, social, and cultural factors diminish as people grow older, often as a result of selection, optimization, and compensation processes (Baltes, Lindenberger, & Staudinger, 1999; see also Smith, this volume).

In the present chapter, we seek to expand on the lifespan model and set down the central tenets of the *cumulative continuity model* of personality development. Unlike previous conceptualizations of personality development, the cumulative continuity model attempts to integrate the findings of empirical research on the development of personality traits with the theoretical and empirical models derived from identity research in an attempt to explain the patterns of personality-trait continuity and change across the life course. In this effort, we attempt to integrate personality-trait development and identity development with perspectives derived from lifespan models (Baltes, Lindenberger, & Staudinger, 1999; Brandtstädter & Greve, 1994).

We begin our argument under the assumption that the empirical data to date are accurate. That is, personality traits increase in consistency with age, are mostly consistent in adulthood, and yet retain the capacity for change throughout the adult life course. If one accepts these data, several questions arise: First, why are personality traits consistent? We can no longer simply assume, as is done in the classical psychometric model, that personality traits are stable and that stability needs no explanation (Nesselroade & Featherman, 1997). In the first section below, we address the mechanisms that promote continuity in personality traits. The second question that arises is, What are the mechanisms that facilitate personality-trait change in adulthood? We address this question in the second section. Third, why do personality traits change less as people age and yet still retain some plasticity? In the last section, we answer this question by putting forward the argument that identity development and structures of identity mediate between personality traits and the mechanisms of change and continuity and that the mediating role of identity helps to explain, in part, the patterns of continuity and change in personality traits across the life course.

### **How Is Continuity Achieved? Mechanisms of Continuity Across the Life Course**

There is a surprising consensus concerning the mechanisms that facilitate continuity in personality. For example, research from personality psychology (Buss, 1987), social psychology (Ickes, Snyder, & Garcia, 1997; Snyder & Ickes, 1985), and lifespan development (Baltes, 1997) have concluded that the way people select environments contributes to personality continuity. Furthermore, the function of assimilation strategies in personality continuity has been emphasized in both developmental (Block, 1982) and lifespan developmental psychology (Brandtstädter & Greve, 1994). In this section, we examine a parsimonious set of mechanisms that we feel subsume the majority of factors thought to affect continuity in personality traits across the lifespan.



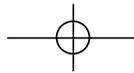
### ***Environmental Influences***

One continuity-promoting mechanism is so mundane that it is often overlooked: personality characteristics may show continuity across the life course because the environment remains stable. To the extent that parental demands, teacher expectancies, and peer and partner influences remain stable over time, we could expect such environmental stability to promote personality continuity (Cairns & Hood, 1983). Sameroff (1995) has coined the term *envirotype* to underscore that, like genotypes, stable environmental factors can shape and influence the course of phenotypic expressions over time.

Several longitudinal studies have shown that there is a good deal of continuity in the “psychological press” of children’s and adults’ socialization environments. Significant continuities have been found in observational studies, as well as in parents’ reports of child-rearing practices from childhood to adolescence (e.g., Hanson, 1975; McNally, Eisenberg, & Harris, 1991; Patterson & Bank, 1989; Pianta, Sroufe, & Egeland, 1989; Roberts, Block, & Block, 1984). In addition, the socioenvironmental conditions of adult life that impinge on material, physical, and psychological well-being also show remarkable intragenerational persistence (Warren & Hauser, 1997). These longitudinal “environmental correlations” are about the same magnitude as longitudinal “personality correlations.” For example, Roberts (1997) reported that the status level of a person’s job was just as consistent as the personality trait of agency over a 16-year period (e.g., .55 versus .42). If the environments that people inhabit are as stable as these data suggest, then continuities observed in personality measures may simply reflect the cumulative and enduring continuities of those environments (Sameroff, Seifer, Baldwin, & Baldwin, 1993). What is needed is a formal test of the possibility that environmental continuities actually account for observed personality continuities.

### ***Genetic Influences***

Quantitative methods that are used to estimate genetic and environmental components of phenotypic variance at a given point in time can be extended to estimate genetic contributions to continuity across time (Plomin & Caspi, 1999). Genetic influences on personality continuity may be explored in twin studies by analyzing cross-twin correlations—that is, by fitting behavior-genetic models to the correlation between Twin A’s score at time 1 and Twin B’s score at time 2. Few studies have explored genetic contributions to temporal continuity by analyzing cross-twin correlations. In adulthood, at least two longitudinal studies have examined the genetic and environmental etiology of age-to-age continuity. McGue, Bacon, and Lykken (1993) administered the Multidimensional Personality Questionnaire to a sample of twins on two occasions, 10 years apart. The results showed that the MZ cross-twin correlations were consistently and significantly larger than the DZ cross-twin correlations. The authors estimate that approximately 80% of phenotypic stability may be associated with genetic factors.



Similarly, Pederson and Reynolds (1998) reported that genetic factors contribute to 50% of phenotypic stability (see also Pederson, 1993).

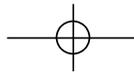
Although the data suggest that genetic factors can influence the continuity of personality, they do not address the mechanisms by which they do so. One possibility is to examine physiological mechanisms. This is illustrated by research on shyness or “inhibition to the unfamiliar.” Individual differences in behavioral inhibition are heritable and stable, and, at least in early childhood, their phenotypic stability appears to be influenced by genetic factors (Plomin et al., 1993). Kagan (1997) has suggested that inherited variations in threshold of arousal in selected limbic sites may contribute to longitudinal consistencies in this behavioral style. Another possibility is that genetic factors exert their influence on phenotypic stability through gene-environment correlations; thus, personality continuity across the life course may be the result of transactional processes that are, in part, genetically influenced.

### ***Person-Environment Transactions Across the Life Course***

In a third set of perspectives described as person-environment transactions, both the environment and existing individual differences play a role in promoting continuity of personality traits. There are many kinds of transactions, but three play particularly important roles in promoting the continuity of personality across the life course and in controlling the trajectory of the life course itself. Reactive transactions occur when different individuals exposed to the same environment experience it, interpret it, and react to it differently. Evocative transactions occur when an individual’s personality evokes distinctive responses from others. Proactive transactions occur when individuals select or create environments of their own.

***Reactive Person-Environment Transactions*** Each individual extracts a subjective psychological environment from the objective surroundings, and it is that subjective environment that shapes subsequent personality development. This is the basic tenet of the phenomenological approach historically favored by social psychology and embodied in the famous dictum that if people “define situations as real, they are real in their consequences” (Thomas & Thomas, 1928). It also is the assumption connecting several prominent theories of personality development—Epstein’s (1991) writings on the development of self-theories of reality, Tomkins’s (1979) description of scripts about the self and interpersonal interactions, and Bowlby’s (1973) analysis of working models.

All three theories assert that people continually revise their “self-theories,” “scripts,” and “working models” as a function of experience. But if these function as filters for social information, the question also is raised about how much revision actually occurs (Gurin & Brim, 1984). The answer is provided, in part, by cognitive social psychologists whose research suggests that once self-schemata—psychological constructs of the self—become well organized, a host of cognitive processes makes individuals selectively responsive to information that is congruent with their expectations



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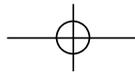
and self-views (Fiske & Taylor, 1991). Persistent ways of perceiving, thinking, and behaving are preserved, in part, by features of the cognitive system, and because of these features the course of personality is likely to be quite conservative and resistant to change (Westen, 1991).

The role of cognitive factors in promoting the continuity of individual differences in personality and psychopathology has been detailed by Crick and Dodge (1994), whose social information-processing model of children's social adjustment includes five steps: (1) to encode information about the event, (2) to interpret the cues and arrive at some decision about their meaning and significance, (3) to search for possible responses to the situation, (4) to consider the consequences of each potential response and to select a response from the generated alternatives, and (5) to carry out the selected response. Research has identified individual differences in processing social information at all of these steps (Quiggle, Garber, Panak, & Dodge, 1992).

A basic assumption of this and other social information processing models is that early temperamental characteristics in combination with early social experiences can set up anticipatory attitudes that lead the individual to project particular interpretations onto new social relationships and situations (Rusting, 1998). That is, people are prone to assimilate experience that is consistent with their self-perceptions (Block, 1982; Brandtstädter & Greve, 1994). This is accomplished through a variety of informational processes in which the person interprets new events in a manner that is consistent with his or her experientially established understanding of self and others. Individuals are thus hypothesized to elicit and selectively attend to information that confirms rather than disconfirms their self-conceptions (Snyder & Ickes, 1985). This promotes the stability of the self-concept, which, in turn, promotes the continuity of behavioral patterns that are congruent with that self-concept (Graziano, Jensen-Campell, & Hair, 1996).

Individual differences in social information processing also may reflect unconscious mental processes; individual differences play a more important role in automatic rather than in controlled processing of social information (e.g., Rabiner, Lenhart, & Lochman, 1990). Indeed, psychoanalytic concepts (such as transference) are implicit in cognitive perspectives on personality development. For example, methodologically sophisticated  $N = 1$  studies and experimental studies using the tools of research in social cognition have shown how recurring emotional states organize experience and how individuals transfer affective responses developed in the context of previous relationships to new relationships (e.g., Andersen & Baum, 1994; Horowitz et al., 1994). However, persistent ways of perceiving, thinking, and behaving are not preserved simply by psychic forces, nor are they entirely attributable to features of the cognitive system; they also are maintained by the consequences of everyday action (Trachtenberg & Viken, 1994).

A second set of consistency generating reactive person-environment transactions may come into play when a person's existing cognitive and emotional schemas surrounding their personality are threatened. This second set of mechanisms, which we refer to as *strategic information-processing mechanisms*, subsumes a wide range of

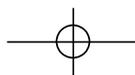


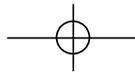
conscious and unconscious information-processing factors. These mechanisms share one thing in common; they all act to reconfigure the meaning of experience, not experience itself.

The first mechanism drawn from lifespan developmental theory is ironically termed *accommodative* strategies (Brandtstädter & Greve, 1994) and refers to the adjustments one makes in goals or self-evaluative standards in order to maintain consistent self-views (see also Heckhausen, this volume). Brandtstädter (1992) showed that people increase the use of flexible goal adjustment with age and simultaneously diminish their tenacious goal pursuit. Thus, with age people recalibrate their goals rather than persist in attempting to achieve specific outcomes (for example, earning enough for retirement rather than earning enough to become rich). By recalibrating goals, people can maintain consistent self-views (I am successful). One of the most effective means with which people can maintain consistent views of themselves is to renorm their self-evaluative standards. For example, with age individuals inevitably face decreasing physical and cognitive abilities, especially in comparison with young people. Rather than norming themselves against young people or people in general, older individuals can maintain the perception that they are active and sharp by renorming their evaluative standards exclusively against older people.

Similarly, the optimization and compensation strategies from the SOC model (Baltes & Baltes, 1990) can be seen as continuity-promoting mechanisms. *Optimization* refers to emphasizing goals and activities that reflect a person's strengths rather than emphasizing something new or untested (such as selection). *Compensation* reflects the inevitable tailoring of goals and activities to make up for the natural degradation of abilities in old age. So, for example, one can both emphasize and come to depend on crystallized knowledge more than fluid intelligence because of the diminishing speed with which information is processed in old age. Both of these mechanisms entail emphasizing, if not fostering, existing characteristics or skills. Applied to the sphere of personality, one can easily see that the successful utilization of optimization and compensation strategies would facilitate the maintenance of personality traits. For example, despite decreasing expenditure of energy at work (such as a propensity to work hard), a person's impression that he or she is conscientious may be maintained if the person can emphasize other facets of conscientiousness, such as their organization skills or ability to be efficient. With time and decreasing energy, a person may be forced to fall back on organizational skills to compensate for a lack of energy and efficiency.

Brandtstädter and Greve (1994) described a fourth information-processing factor, *immunization*, which is defined as processes that protect the self from self-discrepant evidence. These mechanisms include deemphasizing the personal relevance of an experience, searching for and finding an alternative interpretation, and questioning the credibility of the source of information. In relation to personality consistency, one may imagine a person receiving feedback from a friend or acquaintance that he or she is neurotic. If this person feels that he or she is not neurotic, then immunizing mechanisms may be employed to discount the friend's opinion. To maintain a consistent





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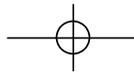
self-perception, this person may attempt to trivialize the importance of the relationship, attribute the feedback to the friend's own issues (alternative interpretation), or question the friend's ability to make such interpretations (question credibility). All of these strategies would serve to maintain the person's self-perception that he or she is not neurotic or at least not as neurotic as the friend claims.

Accommodation, optimization, compensation, and immunization mechanisms are assumed to be cognitive schemas that can be accessed in conscious awareness. *Defense mechanisms*, a fifth strategic information-processing factor, are assumed to perform similar functions to the conscious information-processing mechanisms identified above but to do so unconsciously (Norem, 1998). Contemporary perspectives define defense mechanisms as unconscious mental operations that function to protect the individual from experiencing excessive anxiety (Cramer, 1998). Defense mechanisms are seen not only in the classical psychoanalytic sense as acting to filter unacceptable internal thoughts, impulses, or wishes but also in the contemporary sense as filtering out experiences and information that threaten one's self-esteem or self-integration (Cramer, 1998).

If we assume that, in part, personality change results from experiencing events that contradict closely held views of the self or from receiving feedback from others that we are different than originally expected (see below), then defense mechanisms should contribute to continuity in personality. We suspect that receiving feedback that contradicts one's self-perceptions is anxiety provoking. The anxiety, whether conscious or not, that is experienced in these situations should by its very nature invoke the use of defense mechanisms. Take, for example, the incident described above where a person receives feedback that he or she is neurotic. Rather than consciously reshaping the nature of the information, an alternative would be to unconsciously project back the information on the person delivering the feedback. The person providing feedback is now considered neurotic and needs the attention, if not sympathy, of the person originally deemed to be neurotic. Alternatively, the person could conveniently forget (repress) that the he or she was described as neurotic or "isolate" the event from other cognitions and emotions (Baumeister, Dale, & Sommer, 1998), so that it is quickly forgotten or deemed to be of little importance. Needless to say, personality continuity should be maintained to the extent that defense mechanisms can transform or inoculate disconfirming experience or feedback.

We refer to accommodation, optimization, compensation, immunization, and defense mechanisms as "strategic" information processing because we see each as serving the agenda of maintaining continuity in self-perceptions and continuity in self-integrity, which should both coincide with elevated levels of personality continuity. These strategic information-processing mechanisms act in conscious awareness and the unconscious. Unfortunately, to our knowledge, the continuity-promoting nature of these mechanisms has not been tested in longitudinal studies of personality development.

When the two sets of reactive person-environment transactions are combined, we see two compelling reasons for why people maintain consistent self-perceptions over



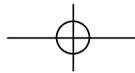
time. First, people automatically filter incoming information so that it conforms to pre-existing self-perceptions. Second, when confronted with information that contradicts or threatens conscious or unconscious self-perceptions, people can use a variety of strategic information-processing mechanisms to inoculate the threatening information and render it benign. Thus it is seldom the case that humans are simple, passive recipients of experience, which is often the assumption behind interventions intended to improve people in some fashion. Rather, people will be intrinsically prone to gather self-affirming experience and discount or defend against experience that demands change. People are prone to remain consistent and not to react unwittingly to their environment.

*Evocative Person-Environment Transactions* Individuals evoke distinctive reactions from others on the basis of their unique personality characteristics. The person acts; the environment reacts; and the person reacts back in mutually interlocking evocative transaction. Such transactions continue throughout the life course and promote the continuity of personality.

Already very early in life, children evoke consistent responses from their social environment that affect their subsequent interactions with adults and peers (Bell & Chapman, 1986). It also is through evocative transactions that phenomenological interpretations of situations—the products of reactive interaction—are transformed into situations that are “real in their consequences.” Expectations can lead an individual to project particular interpretations onto new situations and relationships and then to behave in ways that corroborate those expectations (Wachtel, 1994).

The process through which evocative person-environment transactions can sustain individual differences has been explored in social-interactional and experimental analyses of aggressive behavior where children’s coercive behaviors have been shown to shape the responses of adults to them (Lytton, 1990; Patterson & Bank, 1989). This is not, however, substituting one “main-effects” model (parental influence) with another such model (child influence). A transactional model recognizes that partners react back and forth in mutually reciprocally related evocative transactions and contribute to the continuity of dispositional characteristics by evoking congruent responses from each other. Increasingly, behavioral genetic designs will help to untangle whether evocative effects are the product of genetic differences or represent true environmental effects (O’Connor, Deater-Deckard, Fulker, Rutter, & Plomin, 1998; see also McClearn, this volume), and new statistical techniques for analyzing interaction data may help to decompose how different individuals and relationships in the family conspire to maintain behavioral continuity (Cook, Kenny, & Goldstein, 1991).

Individuals also manifest their personalities in expressive behavior (Borkenau & Liebler, 1995). Facial expressions of emotion are especially important in evocative person-environment transactional processes for they convey information to others what the individual is feeling and about how the individual is likely to act. The finding that personality traits are registered in facial expressions suggests that personality-related expressions of emotion may influence the course of social development by evoking



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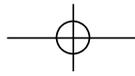
congruent and reciprocal responses from other persons in the social environment (Keltner, 1996).

***Proactive Person-Environment Transactions***

One of the primary tenets of Baltes (1997) SOC model is the idea that persons select goals and tasks that shape their developmental contexts for a long period of time. These goals, which Roberts and Robins (2000a) described as major life goals, affect the primary structures of the life course, including the type of work people pursue and the types of relationship partners people seek out. Arguably, the most consequential environments for personality development are interpersonal environments, and the personality-sustaining effects of proactive transactions are most apparent in friendship formation and mate selection (Asendorpf & Wilpers, 1998; Kandel, Davies, & Baydar, 1990). Personality effects on social relationships serve to maintain and elaborate intitial personality differences between people and proactive transactions may account for the age-related increase in the magnitude of stability coefficients across the lifespan.

Friends tend to resemble each other in physical characteristics, values, attitudes, and behaviors (e.g., Dishion, Patterson, Stoolmiller, & Skinner, 1991). Whereas popular wisdom holds that members of peer groups are similar because peers influence their friends to behave in similar ways, empirical studies suggest that members of peer groups are similar because individuals selectively choose to affiliate with similar others (e.g., Ennett & Bauman, 1994). Cairns and Cairns (1994) suggest that affiliations with similar others may serve as guides for norm formation and the consolidation of behavior patterns over time. Continuities in social networks may thus contribute to behavioral continuity because the demands of the social environment remain relatively stable over time. Moreover, consistency in how members of the social network relate to the individual may contribute to behavioral continuity because it affects how individuals view and define themselves.

Research on marriage similarly indicates that partners tend to resemble each other in physical characteristics, cognitive abilities, values and attitudes, and personality traits (Epstein & Guttman, 1984). Assortative mating has genetic and social consequences, and it also may have implications for the course of personality development because similarities between spouses create an environment that reinforces initial tendencies (Buss, 1984). This proactive transactional process is documented in a 50-year longitudinal study of political attitudes. The political liberalism acquired by women while in college in the 1930s was sustained across their life course in part because they selected liberal friends and husbands who continued to support their politically liberal attitudes (Alwin, Cohen, & Newcomb, 1991). In a 10-year longitudinal study of couples, Caspi and Herbener (1990) found that persons who married a partner similar to themselves were subsequently more likely to show personality continuity over time. It may be that through assortative mating, individuals set in motion processes of social interchange that help to sustain their dispositions, for in selecting marriage partners individuals also



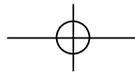
select the environments they will inhabit and the reinforcements to which they will be subject for many years (Buss, 1987).

### ***Dispositional Mechanisms***

A fourth category of factors that may contribute to personality trait consistency has to do with a person's psychological makeup. That is, certain personality traits tend to facilitate consistency across the life course. Several psychological factors associated with increased consistency cluster around the concept of maturity. Roberts, Caspi, and Moffitt (2000) defined maturity in terms of the Big Five as a combination of agreeableness, conscientiousness, and emotional stability (see also Allport, 1961; Hogan & Roberts, in press). That is people who are mature have the capacity for warm interpersonal relationships, are responsible and dependable, and don't fall to pieces under stress. The latter component of maturity, adjustment, has been shown to correlate with personality consistency in a number of studies. For example, Asendorpf and Van Aken (1991) found that ego resiliency, which is, in part, related to emotional adjustment (Klohnen, 1996), predicted personality consistency over time in a longitudinal sample of children. More specifically, children who were more resilient tended to be more consistent over time. Similarly, Schuerger, Zarrella, and Hotz (1989) found that clinical samples, which we can assume are less emotionally stable, were less consistent than nonclinical samples. Also consistent with the Roberts et al. (2000) maturity hypothesis is the proposal by Clausen (1993) that the trait of planful competence predicts higher levels of personality consistency in adulthood. People who are planfully competent tend to be more self-confident, dependable, and intellectually invested. Finally, Roberts, et al. (2000) demonstrated strong empirical support for the maturity hypothesis. In an eight-year longitudinal study, they found that men and women who were more controlled, less neurotic, and more prosocially oriented demonstrated less change in personality traits and greater profile consistency across personality traits over an eight-year period.

### **How Does Change Come About? Mechanisms of Change Across the Life Course**

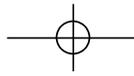
We now focus on the empirical and theoretical mechanisms that promote personality change. Most of the theoretical writings on what causes personality change come from nonpsychological domains (such as sociology) or rely on behavioral models or role theories that have not been updated in relation to personality development in over 30 years. In reviewing the disparate literature on personality change, we identified four primary mechanisms of change—responding to contingencies, watching ourselves, watching others, and listening to others (Caspi & Roberts, 1999). We review each of these in turn.

***Responding to Contingencies***

One of the most simplistic and yet powerful theories of change is the notion that people respond to reinforcers and punishers and that by doing so change their behavior. That is, they accommodate to an environmental press that calls for them to act differently than they have done in the past (Block, 1982; Brandstädter & Greve, 1994). The contingencies that people respond to can be either explicit or implicit. Explicit contingencies come in the form of concrete contingencies applied to a person's behavior where that person is aware of the agenda. Implicit contingencies are more subtle and come in the form of unspoken expectations and demands that often come with the acquisition of new social roles (Sarbin, 1964).

The most direct form of explicit contingency is a parent's attempt to shape a child's behavior. For example, Kagan's (1994) work on behavioral inhibition demonstrates the interplay between parental attempts to shape a child's personality and the child's biologically and genetically based temperament. Behaviorally inhibited children experience greater levels of distress at lower thresholds when confronted with novel situations. Although childhood behavioral inhibition has been related to possessing traits of shyness, introversion, and neuroticism in adulthood, not all inhibited children become shy adults. Several parental interventions on the part of inhibited children can shape whether an inhibited child becomes an introverted adult. Parents who expose their inhibited children to novelty, provide firm and consistent limits, and do not overprotect their children from novel situations may help children overcome behavioral inhibition (Kagan, 1994). In contrast, many parents respond to their child's distress in novel situations by rewarding the child for avoiding these situations in the future. The reinforcement of these avoidance behaviors inadvertently promotes continued behavioral inhibition (Gerlsma, Emmelkamp, & Arrindell, 1990) and may increase the likelihood that the child grows up to become an inhibited adult. Likewise, different parenting socialization practices interact with childhood temperament in the development of conscientiousness (Kochanska, 1991). Fearful children are more likely to internalize regulators of conduct when mothers use subtle, gentle, psychological discipline. Fearless children, in contrast, do not respond well to increased socialization pressures; rather they tend to develop stronger internalization in response to a mutually positive and cooperative orientation between themselves and their parents (Kochanska, 1997).

Implicit contingencies are often communicated through the acquisition of roles or positions in a group, community, or society. Implicit contingencies are thought to shape behavior, and thus personality, by defining the appropriate way to play a role (Sarbin, 1964). Roles such as being a leader or follower come with specific expectations and demands for appropriate behavior that is known to the person assuming the role and to the people interacting with that person. For example, Sarbin and Jones (1955) asked respondents to describe their expectations for the manager role. Across several groups, the respondents agreed that managers should act industrious, serious, stable,



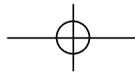
intelligent, fair-minded, tactful, and reasonable. Thus, a person who is impulsive by nature would be expected to set aside his or her predilection to make snap decisions if he or she assumes the role of manager in an organization. Exposure to these implicit role demands over a long period of time may be one factor contributing to personality change (e.g., Roberts, 1997).

Behaviorist notions of shaping personality directly through parenting styles or role pressures can be overly simplistic. Nonetheless, behavioral models of change are still the most elegant and powerful factors that influence change in a person's behavior and subsequent change in personality. The factors most often missing from behaviorally derived socialization models have to do with the cognitive and volitional aspects of personality. A discussion of these factors follows.

### ***Watching Ourselves***

In addition to the press of the environment on behavior, one of the critical moderators of change is whether people have the opportunity to reflect on their own actions. For example, many efforts aimed at changing patients in a therapeutic situation focus on promoting insight into maladaptive behaviors. Psychodynamically oriented therapists establish a level of transference in which the patient's unconscious proclivities then arise. Once the maladaptive unconscious drives are identified, a therapist may then attempt to make the patient aware of these patterns in order to strengthen the person's capacity for more adaptive alternatives. Likewise, cognitively oriented therapists attempt to identify problematic thoughts and replace them through cognitive reeducation with more adaptive schemas, scripts, or interpretations of day-to-day events (see Messer & Warren, 1990, for a review). In essence, much of what goes on in therapy is an attempt to shift people's focus to watch themselves more closely in their daily lives. By gaining insight into their behavior, clients can then direct their efforts toward acting differently in future situations.

Change also is thought to come about through watching ourselves act differently in new situations or in response to new contingencies. Thus, change comes about through a combination of environmental contingencies and self-insight. The most intensively studied model consistent with this position is Kohn and Schooler's (1983) learning-generalization model. Like the socialization models, the first key position of the learning-generalization model is that our psychological makeup changes in response to the specific pressures and demands of roles such as work and parenting. Where the learning-generalization approach goes beyond simple behaviorism is in detailing the process through which contingencies are shaped by cognition. Personality is thought to be shaped by role experiences through the internalization of role demands into one's self-concept (Deci & Ryan, 1990). This introjection process is facilitated when people draw conclusions about themselves by watching their own actions. For example, if taking on a supervisory role entails less personal connection to coworkers



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and subordinates, then supervisors may see themselves acting less friendly with subordinates, which they then interpret as a lack of interpersonal connection and diminished sociability (Howard & Bray, 1989).

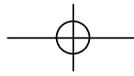
Invariably, introjected experiences that happen in specific contexts are generalized to other domains of life. For example, if a woman becomes more self-directed at work, she will become more self-directed in her marriage and her leisure activities. Kohn and Schooler (1983) report evidence to support the generalization effect, showing that men in intellectually demanding careers increased their engagement in intellectually stimulating leisure-time activities.

### ***Watching Others***

Another significant source of information and learning comes through watching others, such as parents, teachers, coaches, and mentors. This approach to change is consistent with a social-learning perspective—that multiple information-processing mechanisms are involved in the acquisition of new behavior (Bandura, 1986). Bandura's (1965) Bobo doll experiments constitute some of the most elegant studies illustrating the human capacity to acquire behavioral potential through simply watching others, especially role models, and further illustrate the importance of combining observation with implicit or explicit reward structures for the behavior to be expressed (see also Bandura, 1986).

The most likely sources of observational learning are parents and significant role models. For example, the child's opportunity to watch his or her parent's work and how they approach their job may influence the child's own choice of career. Research on vocational interests appears to support this claim, showing that a child's vocational interests are related to the values that parents hold (Holland, 1962). Fathers who valued curiosity in their sons had sons who peaked on the investigative and artistic scales of Holland's vocational model (Holland, 1996). Of course, these covariations between parent and child values could be explained in part by the heritability of vocational interests (Bouchard, 1995).

In work contexts, observational learning is afforded through relationships with mentors (Chao, 1997). Mentorship reflects an intense work relationship between senior and junior members of an organization (Kram, 1985). One of the major functions of mentors is to demonstrate role appropriate behaviors and to show how to behave effectively in an organizational setting. Although there are few longitudinal studies showing that change comes about because of the mentor relationship, outcome studies that compare mentored versus nonmentored workers show some of the potential socializing effects of observing a role model. Riley and Wrench (1985) found that mentored women reported higher levels of career success and satisfaction than nonmentored women. Chao, Walz, and Gardner (1992) found that mentored engineers and managers experienced more job satisfaction, greater understanding of organizational norms and goals, and higher salaries.



### ***Listening to Others***

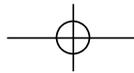
A critical source of information about ourselves (and subsequently a potential source of change) is the people with whom we interact, as well as the feedback they provide to us. This is the primary thesis of symbolic interactionism (Blumer, 1969) and identity theory (Stryker, 1987). Symbolic interactionism emphasizes the meanings that individuals attribute to experience. These meanings are thought to be derived primarily through social interaction (Blumer, 1969).

Identity theory translates the sociological system of symbolic interactionism from the level of society to the level of the individual. According to identity theory, people develop meanings about themselves through receiving feedback from other individuals (Stryker & Statham, 1985). This feedback, described as *reflected appraisals*, can be either congruent or incongruent with a person's self-perceptions (Kiecolt, 1994). Burke (1991) proposed that when reflected appraisals are incongruent with people's self-perceptions, they change their behavior in order to change the reflected appraisals. Thus, when people receive new feedback concerning their personality, either through the changes in their friends' or spouses' opinions or through exposure to new social groups, people will be more likely to change.

Unfortunately, the empirical database showing that listening to others contributes to change is lacking. Rather, the most provocative research in this area, provided by Swann (1987), shows that people tend not to listen to others if it means changing their self-perceptions. In an ingenious series of studies, Swann has shown that (1) people search out feedback that confirms their preexisting self-perceptions, (2) people prefer to associate with others who confirm their self-perceptions, and (3) this process is relatively independent of the evaluative nature of the feedback. That is, people with negative self-perceptions prefer to hear from others that they are seen as neurotic and depressed than to hear that they are seen as happy and upbeat (see also Swann, Stein-Seroussi, & McNulty, 1992). Most of Swann's research has been cross-sectional. We still do not know the long-term effects of being given feedback by significant people in our lives, such as spouses or respected coworkers, that contradicts our closely held self-views. It may be that persistence on the part of spouses, friends, and coworkers may lead to some personality change.

### **Why Does Personality Continuity Increase with Age?**

The challenge that confronts us now is to integrate mechanisms of consistency and change with the picture of personality development provided by the data accrued over the last several decades. In the process, we describe an organizing system that can explain how consistency and change mechanisms cooccur in an individual and explain the gradual increase in consistency over the life course, combined with the capacity for



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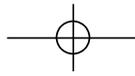
change that is apparently never eliminated. We propose that this puzzle is solved by linking consistency and change in personality traits to the concept and facets of what is termed “identity” and more specifically to the development of identity and aspects of identity structure.

Our argument is based on two assumptions. First, we argue that the process of developing, committing to, and maintaining an identity leads to processes that facilitate both continuity and change in personality traits (e.g., see Helson & Srivastava, 2001). Second, the process of identity development does not end in adolescence, as originally conceived (Erikson, 1950), but continues throughout adulthood (Stewart & Ostrove, 1998). Therefore, personality change should continue well into adulthood, and the increase in personality consistency should correspond to the strengthening of commitments to identity that occur with age (e.g., Waterman & Archer, 1990).

Identity has multiple meanings depending on the source of the definition. From an Eriksonian perspective, to have an identity reflects, in part, coming to terms with how one will relate to society as an adult, especially through one’s career (Erikson, 1950). Alternatively, Marcia (1980) defined identity as “a self-structure—an internal, self-constructed, dynamic organization of drives, abilities, beliefs, and individual history” (p. 159). Similarly, Waterman (1984) described identity as a “clearly delineated self-definition comprising the goals, values, and beliefs to which the person is unequivocally committed” (p. 331).

From the perspective of sociologists and social psychologists, the definition of identity is broader in scope. Burke (1991) defined identity as “a set of ‘meanings’ applied to the self in a social role or situation defining what it means to be who one is” (p. 837). Waterman and Archer (1990) also differentiated subnorms of identity that reflect the fact that people can develop identities in specific domains, such as work, politics, and religion. With time and age, these identity domains are thought to become increasingly integrated into a coherent overall identity. Baumeister (1997) argued that identity consists of the definitions that are created for and superimposed on the self. People make choices and take actions to fulfill a vision of how they are in the present and how they want to be in the future. The imposition of an identity reflects the fact that as social beings, we are often assigned qualities by others based on factors beyond our control, such as our sex and race or the class and religion into which we were born.

These definitions share commonalities important to our argument. First, each maintains that an identity is developed in relation to society, most likely through a role such as work, marriage, friendships, a specific leisure-time activity, or a combination of any or all of these. Second, the process of creating an identity requires making choices and commitments and entails taking actions on the part of an individual to maintain the identity throughout adulthood. Third, a sense of identity provides the perception of continuity. Fourth, identities may be forced on us despite our best wishes.



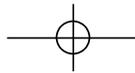
***How Do Identity Development and Identity Structure Explain Personality-Trait Consistency?***

Intrinsic to the identity-development process is the search for an identity that fits with one's values, abilities, and predispositions. Adolescence, which is the primary period of identity development, is a time "during which the young adult through free role experimentation may find a niche in some section of his society, a niche which is firmly defined and yet seems to be uniquely made for him" (Erikson, 1968, p. 156). Thus, one of the overriding concerns of adolescence and young adulthood is selecting and building an identity that fits with one's characteristics. We see in this process the manifestation of the selection process identified by Baltes and Baltes (1990) and others (Buss, 1987; Ickes, Snyder, & Garcia, 1997; Snyder & Ickes, 1985) that presumably contributes to personality consistency, if one chooses an identity well. Supporting the contention that building one's niche facilitates personality continuity is recent longitudinal research showing that elevated levels of person-environment fit predicted higher levels of personality consistency over time (Roberts & Robins, 2000b).

Identity development also facilitates personality consistency through providing clear reference points for making life decisions (proactive person-environment effects). Erikson (1950) highlighted the role identity plays in maintaining continuity, arguing that a sense of identity provides the ability to experience one's self as something that has continuity and sameness, and to act accordingly. Likewise, Burke (1991) argued that identity provides a set of meanings that serve as a standard or reference for who one is. People who have committed to an identity can make more informed decisions about what job to take or which person to marry because they have a clearer perception of their own attributes and goals. Choosing an identity that fits better with one's characteristics should lead to consistency through one's attributes being rewarded in these new environments. Put another way, having a strong identity should permit a person to enter into situations in which assimilation takes precedence over accommodation (Whitbourne, 1996).

In addition to simply having an identity, several features of identity, such as clarity and certainty, may enhance the proactive selection process. Clarity should lead to choosing environments that are more consistent with one's identity. Choosing and interacting in environments that are consistent with one's identity will make experiences easier to assimilate (e.g., Block, 1982; Brandtstädter & Greve, 1994). Conversely, research has shown that failure to express one's traits leads to anxiety (Wiggins & Trobst, 1997). Choosing friends, partners, and coworkers who are similar to ourselves brings about more opportunities to express our traits and to be reinforced for who we are (Cairns & Cairns, 1994; Caspi & Herbener, 1990; Pfeffer, 1995).

Identity clarity and certainty also should facilitate optimization and compensation processes. Individuals with clearer, more certain identities will know their strengths and weaknesses better and therefore be able to emphasize their strengths more efficiently (optimization) and understand how to make amends for their weaknesses (compensation). Conversely, persons who are unclear or uncertain about their identity



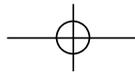
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should be less able to choose situations that capitalize on their attributes and may be essentially unaware of the relevance of new situations to their identity (Baumgardner, 1990).

Being committed to an identity also may promote other personality-consistency mechanisms. Strong identities may serve as a filter of information and life experiences (reactive person-environment transaction) and lead each individual to interpret new events in ways that are consistent with their identities. Berzonsky (1993; Berzonsky & Neimeyer, 1994) found that different identity styles were associated with different patterns of information processing. For example, the foreclosed identity status was associated with processing social information on a normative basis, whereas the moratorium identity status was associated with a more informational search orientation. To the extent that having a clear, well-defined identity overlaps with concepts such as self-schema (the importance of self-relevant information), evidence would support the notion that identity serves as a filter of self-relevant information. Indeed, studies have shown that self-schemas affect our judgments of other persons (Hochwaelder, 1996), speed processing of information consistent with the self (Fekken & Holden, 1992), and promote the recall of self-relevant information (Bruch, Kaflowitz, & Berger, 1988). Dodge and Tomlin (1987) even showed that self-schemas are imposed on situations that are ambiguous, leading to interpretations that are consistent with one's self-concept. Likewise, 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 (evocative person-environment transaction). 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.

If one accepts that a person's overall identity is really an integration of multiple role identities and their components (Roberts & Donahue, 1994; Rosenberg & Gara, 1985), then the ways in which identities and their components are structured should also affect personality consistency. For example, role identities, which represent the characteristics that a person ascribes to himself or herself in a particular role, are often organized hierarchically (Stryker & Statham, 1985). This hierarchy is structured around whether a person sees the role identity as important, satisfying, and worth investing in. This notion of a role-identity hierarchy is similar to the notion of a cardinal trait (Allport, 1961). There are certain attributes that are more central to a person's identity than other attributes. We suspect that features of more central role identities will be less likely to change as people will be more invested and committed to maintaining consistency in their cardinal dispositions. Conversely, characteristics that are not central may be less consistent because they are less relevant to a person's overall identity.

An additional feature of identity structure that may affect personality consistency is the extent to which a person's identity is complex or differentiated. This feature of identity structure reflects the number of different characteristics and their distinctiveness



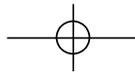
within a person's identity (Rosenberg & Gara, 1985). For example, if people see their "work identity" as a place in which both achievement and affiliation actions arise and their "friend identity" as a place only for affiliative actions, then the latter is less complex than the work-role identity. Likewise, if a person has many role identities, then their overall identity is more differentiated. Complexity can facilitate personality consistency by permitting multiple outlets for the enactment of the same trait. For example, the experience of a setback at work that threatens a person's self-perception that he or she is hard working and achievement oriented may be ameliorated if this person has other role identities in which achievement-oriented behavior can be enacted, such as in a "leisure identity" dominated by competitive activities. Conversely, if a person does not have a well-elaborated identity structure, then setbacks that threaten primary features of a role identity may be more likely to result in change in personality because there are no ways to compensate for the negative feedback.

Aspects of identity achievement, certainty, and consolidation also are related to dispositional factors linked to personality consistency. For example, having an achieved identity was found to be related to higher levels of psychological well-being (Helson, Stewart, & Ostrove, 1995). Vandewater, Ostrove, and Stewart (1997) showed that having an achieved identity was directly related to higher family and work-role quality and indirectly to life satisfaction and psychological well-being. Ronka and Pulkkinen (1995) found that having a clear career line, akin to the notion of an achieved identity, was related to fewer problems in social functioning in adulthood. Identity achievement also has been shown to be related to higher levels of self-esteem, autonomy, and moral reasoning and lower levels of anxiety (see Marcia, 1980). Likewise, self-certainty is related to an increased sense of control over future situations (Trope & Ben-Yair, 1982), clarity of the self-concept is associated with higher levels of self-esteem (Campbell, 1990), and identity consolidation is related to less marital tension, positive feelings about mothering, work satisfaction, and personality variables such as self-confidence, positive well-being, competence, affiliation, and independence (Pals, 1999). Therefore, identity and aspects of identity such as achievement, certainty, clarity, and consolidation are linked to higher levels of psychological well-being and adjustment—aspects of maturity that in turn are related to higher levels of personality-trait consistency.

In sum, both empirical evidence and logical analysis point to the potential role that identity and aspects of identity play in facilitating personality-trait consistency. Having a strong identity may promote personality-linked life choices, create more powerful filtering effects on self-relevant experience and information, and elicit reactions from the environment that are consistent with one's identity.

### ***How Do Identity Development and Identity Structure Explain Personality Change?***

The link between identity processes and mechanisms of change is less clearly supported by empirical research, and therefore we must rely more on conceptual and logical

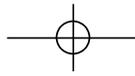


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arguments. It is clear that choosing and consolidating identities often entails exposure to new situations and roles. Inevitably, people will select environments that bring with them contingencies that reward certain behaviors and punish other behaviors. To the extent that a person selects an identity that is consistent with his or her abilities and proclivities, the new identity should reinforce his or her personality. For example, if a meticulous person has the good fortune to enter a profession that reinforces his or her behavior, such as accounting, he or she should find ample rewards for continuing a detailed approach to work. This example highlights one of the most likely ways in which identity selection and consolidation may lead to personality-trait change. It may enhance and deepen personality characteristics that already exist. Therefore, over time, our accountant may become even more meticulous and painstaking in his or her approach to work, and this may generalize to other life domains (e.g., see Kohn & Schooler, 1978).

Of course, new identities, and the roles in which they are played out, will inevitably bring contingencies that do not match one's personality: "Adults must come to terms with what they have discovered to be the negative as well as the positive aspects of their identity commitments" (Waterman & Archer, 1990, p. 41). The contingencies that do not fit an individual's personality lead to negative affect, which may press the individual to accommodate and change (e.g., Clore, Schartz, & Conway, 1994). One example of this phenomenon comes from a series of studies examining the factors that contribute to criminals desisting from crime. Sampson and Laub (1990) argue that the establishment of strong social bonds leads to a decrease in antisocial and delinquent behavior in criminals. Social bonds are investments made in social institutions such as work and marriage that are reflected in becoming committed to a job or developing a strong attachment to a spouse. These social investments are thought to exact a form of social control through the role demands embedded in these contexts that call on individuals to act with more responsibility and probity—that is, to change their personality. Sampson and Laub (1990) found that job stability and a strong emotional attachment to one's spouse significantly reduced delinquent and criminal activity in men (see also Laub, Nagin, & Sampson, 1998). Viewed from the lens of identity formation, one could assume that being a criminal and being married were both components of the identities of these men. For these men, to commit successfully to and consolidate their marriage identity entailed a reduction in their criminal behavior. That is, they had to let go of those aspects of themselves subsumed in their criminal identity, the result of which was for these men to act more responsibly as they aged.

Another example of the role of identity in the personality-change process comes from the classic longitudinal study of the career progression, or lack thereof, of AT&T managers (Howard & Bray, 1989). As the AT&T managers increased in managerial level, they became more ambitious and achievement oriented and less affiliative than managers who did not increase in position. One interpretation of this profile of change is that it resulted from the acquisition of power and responsibility that came with the leader role. With increasing status and commensurate increases in power, the AT&T

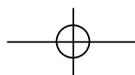


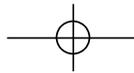
managers were given the responsibilities to make important decisions such as whom to hire and fire. The acquisition of power would inevitably reinforce self-perceptions of ambitiousness and achievement. More important, acquiring power over subordinates, something that comes only with the acquisition of a role (Hogan & Roberts, 2000), would thwart affiliative motives. After being forced to fire, demote, or pass over employees, it would become clear that being close to one's subordinates may result in emotional distress at their departure. We can assume that maintaining the identity of being a "successful manager" entailed a reduction in sociability if that identity was to be maintained in a consistent fashion. It is unlikely that becoming less sociable was part of their identity of a successful executive, and yet it was still the result of successfully enacting the identity.

Just as new roles and identities bring contingencies that may shape personality, they also afford opportunities to see ourselves doing things that are novel. For example, a new father who learns the responsibilities of changing diapers or the joys of making a son or daughter smile is, in turn, given the opportunity to see himself act in ways that he may not have envisioned. To the extent that the father did not envision his behavior, seeing his new skills develop may shift his self-perception and result in personality change. Likewise, new identities and developing identities will bring with them other people to watch, such as mentors or friends. Selecting and consolidating one's identity may affect this in two ways. First, entering into an identity narrows and specifies new social comparisons (Waterman & Archer, 1990). Social comparisons may provide important information about one's personality, such as clarification of one's self-perceptions. Second, establishing an identity will make it clear whom one wants to observe and learn from. Examples of this process are provided by research on life-turning points in settings such as the military, which afford recruits wider social comparisons and more role models (e.g., Elder, 1985; Sampson & Laub, 1990).

Selecting and consolidating an identity also provides opportunities for receiving feedback. At the crudest level, people become aware of their success relative to others. Beyond global evaluations of success and failure, new identities may provide rich feedback on one's specific attributes, such as work style, relationship habits, or parenting idiosyncrasies. As one consolidates an identity, others may provide feedback directly, such as through a performance-review process at work, or indirectly, through watching others perform the same role. Many social institutions are specifically equipped to provide feedback. For example, most large organizations provide training in areas such as customer service, leadership, and team building that involve an evaluation of one's skills and an attempt to enhance them. Similarly, many couples engage in some form of therapy or counseling that also provides structured insights into relationship style.

Finally, sometimes we select new identities in order to change (Snyder & Ickes, 1985). People may choose a different career or partner to try a different life path or attempt to fulfill a vision of an ideal or possible self (e.g., Markus & Nurius, 1986). Religious systems may be shifted to enhance spirituality. Graduate school may be entertained as a way of enhancing expertise and critical acumen. New hobbies may





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be adopted in old age for the purpose of providing challenge and personal growth (Whitbourne, 1996).

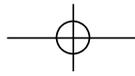
In summary, it is clear that identity-selection and -consolidation processes provide opportunities for personality-trait change. Currently, there is little direct research demonstrating the link (cf. Pals, 1999). What is needed are longitudinal studies that follow both the identity-selection and -consolidation process, the mechanisms of change entailed in those processes, and personality-trait development over time.

***How Do Identity Development and Identity Structure Explain the Increase in Personality Consistency with Age?***

To be useful, our link between identity and personality-trait development must also account for the increase in consistency with age and the higher levels of instability in young adulthood. The ability of the identity-development and personality-trait-development connection to explain the gradual increase in consistency rests on the assumption that identity development does not stop in adolescence. Rather, choosing, establishing, and consolidating a strong identity should take longer than originally hypothesized and extend well into adulthood.

We contend that identity development continues well into what is considered adulthood and that identity consolidation may continue further still. For example, the timeline for what is considered adolescence or the identity-formation period has been stretching significantly over the last 100 years. Before 1920, fewer than 16% of the populace completed high school, and most people left school by age 16 to start a career (Modell, 1989). Earlier in the twentieth century, many people were entering their careers in their late teens and early twenties and by age 30 were in their career for 14 years and most likely married and with children (Modell, 1989). Furthermore, life expectancy at this time was approximately 55. The combination of life-context factors and life-expectancy limitations during this earlier period in history meant that age 30 may have corresponded to middle age. In contrast, the generations that followed increasingly acquired more schooling, delayed their careers, and delayed their development of a strong identity (Littwin, 1986). With the increasing effectiveness of public-health interventions, the lifespan steadily increased. Current generations now confront a life course in which childhood and adolescence can stretch into the twenties, and identity-related decisions about work, marriage, and children can be delayed well into the thirties (Arnett, 2000; Modell, 1989). Arnett (2000) refers to the period between ages 15 and 30 as “emerging adulthood” in a tacit acknowledgement that adulthood is now forestalled both demographically and psychologically until after age 30.

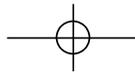
Findings from three studies of identity development support the assumption that identity development and identity processes continue well beyond adolescence and sometimes into middle age. First, Pals (1999) showed that identity consolidation, the process of refining and enhancing the identity choices made in late adolescence, continued well into young adulthood and possibly early middle age. Second, Pulkkinen



and Kokko (2000) examined patterns of continuity and change in overall identity and domain-specific identities in a sample of men and women from age 27 to age 36. They found that men and women continued to show identity development in this age period and furthermore that the preponderance of change was in the direction of greater commitment. People more often moved into achieved and foreclosed identities than into moratorium or diffuse identities. Third, in an ongoing investigation of identity in middle age, Stewart, Ostrove, and Helson (2001) developed scales assessing identity certainty that tapped a person's sense of having a strong and clear identity. They found that identity certainty was rated higher in middle age (ages 40 and 50) than in young adulthood (age 30). The combination of changing life-course demographics, the evidence for continued change in identity in adulthood, and the verification that identity consolidation continues to take place after identities are committed to provides preliminary support for the argument that identity development continues well into middle age.

If the development of an identity and identity certainty continue into middle age, this could explain, in part, why personality consistency tends to increase until after age 50 (Roberts & DelVecchio, 2000). Stronger and clearer identities should facilitate the process of selecting roles and environments that are consistent with one's personality. Furthermore, a strong identity should facilitate optimization and compensation processes by providing a clearer picture of what should be emphasized in one's repertoire of skills and abilities (optimization) and knowledge of what personal characteristics could be relied on in stressful situations (compensation). The increasing complexity and differentiation of identity that come with age and experience (e.g., Labouvie-Vief, Chidod, Goguen, Diehl, & Orwoll, 1995) should provide additional buffering of a person's personality from experiences that may invalidate closely held assumptions about oneself (see Labouvie-Vief, this volume). In addition, the social interface of identity should serve an important continuity promoting function, such that renorming one's self-referencing group (for example, "compared to older people . . .") in middle and old age can serve to maintain consistent self views and in turn personality continuity (Brandtstädter & Greve, 1994). Conversely, the lack of a strong identity or commitment to an identity in young adulthood could help explain the lower levels of consistency reported for people in adolescence and young adulthood. People at this time may be switching identities more readily or holding identities in moratorium until they feel comfortable making a commitment to these identities. Those without strong identities miss out on the consolidating effects of having a reference point for making clear decisions about new roles.

In summary, we believe the nexus of evidence is compelling that the link between identity and personality-trait development helps to explain patterns of personality-trait continuity and change in the adult life course. For our theory to hold up, several empirical relations between identity and age need to be clarified. For example, what is the relation between age and identity achievement and consolidation? Is it true that a large majority of individuals continue to consolidate their identity well into middle age? Do changes in identity diminish with age? More direct links between identity development



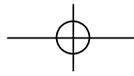
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and personality development also need to be tested. First, individuals who have yet to settle on an overall identity or on a set of subidentities should be less consistent in their behavior and self-perceptions. Second, before a person has consolidated his or her identity, life experiences may not translate clearly into personality change. That is, if a person is not committed to an identity, then experiences in that identity may not be seen as self-relevant (cf. Roberts, 1997). Furthermore, the experiences may be relevant to the development of an identity but not to personality change. For example, performing less well in school or work may not translate into lowered perceptions of ability but may inform a decision to choose a different major or job because one finds the previous areas “uninteresting.”

### Summary

We were drawn to the idea of identity as the mediating structure between trait continuity and change because the development and resolution of identity effectively integrates the consistency and change mechanisms that contribute to personality development. On one hand, we choose identities based on our self-perceptions and motives in an attempt to find a niche in the adult world. Furthermore, we use our identities to evaluate whether relationships, work, and other roles fit with our picture of ourselves. These functions of identity are consonant with many of the mechanisms of personality-trait consistency we outlined above. On the other hand, some aspects of our identity are forced on us from others, as when we are attributed characteristics associated with stereotypes of the young or old, males or females, and minorities or majorities. We also cannot foresee all of the aspects of our future identities. Therefore, it is unlikely that any given identity will fit perfectly. The resulting disparity between the idealized identity and the actual identity means that identities will come with a set of demands, some of which will not mesh well with our personality traits (see Laub et al., 1998). These incongruities may result in an environmental press that facilitates personality change.

In outlining some of the tenets of the cumulative continuity model of personality development, we have made three basic points. First, we argued that the picture developing from the longitudinal database of personality development shows that personality traits increase in consistency with age and yet retain some plasticity throughout life. This pattern of development is not accounted for adequately by current theories of personality development. Second, we reviewed mechanisms that are related to maintaining personality consistency and mechanisms that facilitate personality change. Third, we argued that identity development and structure could account, in part, for the mechanisms of consistency, the mechanisms of change, and the pattern of personality-trait consistency and change demonstrated in the empirical database. We hope that these ideas can now move the empirical tests of personality development beyond gross questions of whether and when personality traits change to questions about why and how continuity and change occur.

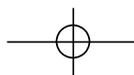


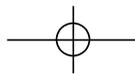
### Acknowledgment

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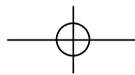




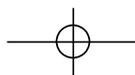
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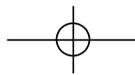
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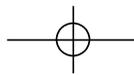
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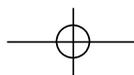


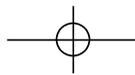
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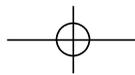




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