

Identity Processing and Self-Consciousness in Middle and Later Adulthood

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Identity process theory proposes that adjustment to aging can be conceptualized as involving the three processes of identity assimilation (maintaining self-consistency), identity accommodation (making changes in the self), and identity balance (maintaining a sense of self but changing when necessary). Measures of the identity processes and self-consciousness were administered to a community sample of 173 adults (108 women and 65 men) ranging in age from 42 to 85 years ($M = 60.80$; $SD = 12.58$). Consistent with theory, identity assimilation was positively associated with age and negatively related to self-reflection. Identity accommodation was negatively related to age and internal state awareness and positively related to self-reflection and public self-consciousness. Identity balance alone was positively related to internal state awareness, indicating that the ability to incorporate age-related changes within identity but at the same time maintain a consistent and positive view of the self is most conducive to successful aging.

A CLEARLY delineated sense of self-definition or identity acts like a compass navigating the individual throughout the life course. Identity forms an organizing cognitive-affective schema through which individuals interpret their experiences and that, in turn, can be altered by experiences. The normative physical, psychological, and social role changes inherent in the aging process represent a particular set of experiences that can challenge the individual's sense of self. These challenges may cause older adults to question the ability of their existing identities to guide them adequately through their later years. However, appropriately negotiating these challenges can result in positive self-regard and what researchers have termed "successful aging" (Rowe & Kahn, 1987, 1998). The self and related constructs provide valuable conceptual tools for examining the impact of age-related changes on psychological well-being. For the most part, self-theory (Andersen & Chen, 2002; Higgins, 1987; Markus & Nurius, 1986) is not specific to the aging self.

According to identity process theory, the individual maintains a dynamic equilibrium between the self and experiences through the Piagetian processes of identity assimilation and identity accommodation. Identity balance, from the identity processing perspective, refers to the flexible use of both processes. Each of the identity processes, as discussed in the paragraphs that follow, has clear implications for understanding successful aging and mental health in later adulthood. Here we relate identity process theory to self-consciousness, a construct that relates to healthy adaptation throughout the adult years.

Identity Process Theory

Identity process theory proposes that age-related changes in adulthood are negotiated through the processes of identity assimilation, identity accommodation, and identity balance. The propositions from this theory were derived from a semi-structured interview study of 94 middle-aged adults regarding their views on family, work, values, and aging (Whitbourne, 1986). Subsequent writings have developed the theory into a cohesive framework for understanding transitions throughout

adulthood and have expanded it to address age-related changes in physical and cognitive functioning (Whitbourne, 1987; Whitbourne & Collins, 1998). Although similar terms have been used by other researchers (e.g., Brandstädter & Renner, 1990), the use of the terms in identity process theory is intended to connect the present formulation directly to Erikson's theory of identity development and Piaget's (1975/1977) cognitive developmental theory.

Identity assimilation refers to the interpretation of identity salient experiences in terms of established cognitive and affective schemas about the self. Identity assimilation is a process that individuals use to maintain a sense of self-consistency even in the face of discrepant experiences or information about the self. People who exclusively use assimilative processes approach new experiences in a fixed and formulated way and seek out information that is consistent with their current identity schemas. To recognize unacceptable aspects of the self is painful and produces negative affect (Whitbourne, 1996b). Examples of these schemas might be physical (able to run up a flight of stairs) and cognitive (able to remember people's names).

According to identity process theory, people who predominantly use identity assimilation find it painful to acknowledge their own personal weaknesses or deficiencies, whatever the source. They may appear to have high self-regard and perceive themselves as healthy, but underneath this façade they are theorized to have feelings of insecurity, particularly with regard to aging. Their underlying fear is that the aging process will strip them of their abilities, health, and accomplishments. Unfortunately, overreliance on identity assimilation may preclude individuals from using strategies to compensate for the effects of aging because they do not wish to admit that they are in fact experiencing age-related changes (Baltes & Baltes, 1990). Such a stance may be motivated in part by a desire, at some level, to avoid being labeled "old," a status that is still associated in Western society with negative stereotypes (Nelson, 2002). Indeed, there may be some survival value in being an assimilative older adult who does not incorporate these negative

views of aging and the self. Positive perceptions of aging are associated with greater longevity (Levy, Slade, Kunkel, & Kasl, 2002) and have been found to predict better functional health in older adulthood (Levy, Slade, & Kasl, 2002).

Identity accommodation is a process of changing identity in response to experiences. Those who use identity accommodation to excess are readily influenced and easily shaped by new experiences because their own identities are unstable and incoherent. The lack of internal constancy leads individuals who use identity accommodation to be plagued by self-doubt and low self-esteem. Furthermore, they are highly responsive to external influences; they look outside of themselves for inner guidance. In fact, they may be most likely to evaluate themselves negatively when failing to gain the approval of others. At that point they may be vulnerable to experiencing highly negative evaluations of their thoughts, feelings, and behaviors because other people's negative evaluations mirror their own inner turmoil and confusion. Returning to our previous example, we can say that identity accommodation would involve redefining one's physical identity schema as a result of an inability to run up the stairs.

Adults who use identity accommodation are theorized to be highly responsive to external influences, seeking guidance from others as sources of self-definition. In terms of aging, such adults overreact to small age-related declines, believing that even a minor physical change means that they are "over the hill." Despite the negative stereotypes associated with an aging identity, it may give the individual who tends to use identity accommodation a concrete self-definition as an aging person. By prematurely adopting this view of the self, however, the person may fail to take preventative and compensatory actions that would otherwise maintain his or her health and well-being. The individual attributes the cause of his or her age-related concerns to an inevitable decline associated with aging rather than to environment, circumstance, or a transient state. Supporting this theorized pattern, lower levels of well-being are found in older adults whose self-concepts are highly differentiated, indicating a state of self-concept fragmentation and lack of coherence (Diehl, Hastings, & Stanton, 2001).

When identity-discrepant experiences occur, they are first processed through identity assimilation. In the physical schema example, the cause of the problem would more likely be seen as a function of temporary fatigue or uncomfortable shoes rather than a change caused by the aging process. Only when identity assimilation fails is identity accommodation utilized. For example, after numerous instances of memory failure, the individual begins to question the previous view of having mental prowess. This basic tenet of identity process theory, derived from Piaget's (1975/1977) cognitive developmental theory, refers to a time-dependent process in which identity assimilation is always utilized prior to identity accommodation. Although not tested in the present study, this proposition is fundamental to the theory because it stipulates that people seek to verify preexisting beliefs about themselves prior to making changes in the self, which is consistent with the self-consistency perspective in personality (e.g., Lecky, 1945). Block (1982) has referred to this as the adaptive imperative: "Assimilate if you can, accommodate if you must!" (p. 286)

A dynamic equilibrium between identity accommodation and assimilation is theorized to be the most adaptive approach to

aging and is captured in identity process theory by the concept of identity balance. People who use identity balance change in response to identity-salient discrepancies, but they are not so unstructured that every new experience causes them to question fundamental assumptions about their self-definition. People who use identity balance tend to make favorable changes to their self-concepts, which enables them to reflect and evaluate themselves realistically. As a result, it is a process associated with high self-esteem and a lack of significant psychopathology. When individuals are in a state of balance, they are able to make changes when their identity is challenged but at the same time maintain a consistent sense of self. Returning to the memory example, the individual may acknowledge that memory failures occur once in a while but not become despondent or convinced that dementia is just around the corner.

In summary, the content of identity for the aging individual is a complex, multidimensional construct that integrates physical identity, cognitive styles, and personality traits (Whitbourne, 1996a). The identity processes are ways of processing information about these multifaceted areas. Previous research has explored the identity processes in the domain of physical functioning (Whitbourne & Collins, 1998) and dispositional differences in positive self-regard (Sneed & Whitbourne, 2001). However, to our knowledge, no study has investigated the relationship between the identity processes and individual differences in self-consciousness, constructs that have direct bearing on mental health and well-being in middle and older adulthood.

Self-Consciousness

Self-consciousness consists of two components: public and private self-consciousness (Fenigstein, Scheier, & Buss, 1975). Public self-consciousness refers to the dispositional tendency to direct one's attentional resources outwardly; that is, the tendency to be aware of oneself as a social object. Public self-consciousness reflects an affiliative identity and the individual's tendency to evaluate the self in terms of group or public standards. People who score high on public self-consciousness also score high on measures of depression, neuroticism, and social anxiety, and they score lower on measures of self-esteem (Reeves, Watson, Ramsey, & Morris, 1995; Trapnell & Campbell, 1999; Watson, Hickman, Morris, Stutz, & Whiting, 1994).

Private self-consciousness reflects the tendency to direct attentional resources inwardly; that is, the tendency to be aware of one's inner thoughts and feelings. Most theories of mental health and psychotherapy regard as a positive attribute a person's ability to reflect on the meaning and motivation of inner thoughts, feelings, and behavior, a process assumed to result in increased self-knowledge and well-being. However, people who score high on private self-consciousness consistently score high on measures of psychological distress and psychopathology, including depression, anxiety, and alcohol dependence (Ingram, 1990).

This raises two questions: How is it that high levels of private self-consciousness lead to increases in psychopathology, and why are private and public self-consciousness both associated with increases in psychological distress? With respect to the first question, it appears that private self-consciousness

is reliably factored into two components (self-reflection and internal state awareness), and that these two components show differential patterns of associations with openness to experience and neuroticism. According to Trapnell and Campbell (1999), both self-reflection and internal state awareness are positively associated with openness to experience, but only self-reflection is positively associated with neuroticism. When factored into these two components, the paradox of self-absorption is clarified: self-reflection is negatively associated with self-esteem and positively associated with social anxiety and depression, whereas internal state awareness is negatively associated with depression and positively associated with self-esteem (Reeves et al., 1995; Watson et al., 1994). It appears then that private self-consciousness can be subdivided into two components: neurotic self-reflection and psychologically healthy internal state awareness. With respect to the second question, it appears the common association of private and public self-consciousness with measures of psychological distress has been qualified, as it is only the self-reflection component of private self-consciousness that is maladaptive. Public self-consciousness and the self-reflection component of private self-consciousness are both associated with measures of psychological distress because both share a common association with dispositional neuroticism (Trapnell & Campbell, 1999). The difference between public self-consciousness and self-reflection is that self-reflection is positively associated with openness to experience, whereas public self-consciousness is not.

The Present Study

The focus of this investigation was on the relationships among the identity processes and self-consciousness, in particular self-reflection, internal state awareness, and public self-consciousness. We were also interested in whether identity processes varied as a function of age and gender.

Because we were interested in how the self-consciousness variables relate to each of the identity processes, we organized our hypotheses regarding these relationships along the three dimensions of identity processes: identity assimilation, accommodation, and balance. As previously discussed, extreme use of identity assimilation is theoretically associated with the need to preserve one's existing identity and avoid introspection. We therefore expected identity assimilation to associate negatively with public self-consciousness, as use of this process would negate excessive awareness of the self as a social object. Identity assimilation was also theorized to relate negatively to self-reflection and internal state awareness. Identity accommodation is theoretically associated with a diffuse identity involving the continuous examination of alternative identity commitments and the evaluation of the self in terms of others' expectations. Identity accommodation is also empirically associated with low self-esteem (Sneed & Whitbourne, 2001). Accordingly, we expected public self-consciousness and self-reflection to positively predict identity accommodation. A negative relationship was expected between identity accommodation and internal state awareness. Identity balance is theorized to reflect an identity that is stable enough to withstand change yet secure enough to adapt when necessary, and it is considered the most adaptive approach to processing identity-discrepant experiences in later adulthood. Therefore, we

expected scores on this scale to associate negatively with public self-consciousness and self-reflection and to associate positively with internal state awareness.

On the basis of previous research (Sneed & Whitbourne, 2001), we hypothesized that identity assimilation would relate positively to age and identity accommodation would relate negatively to age. We did not expect identity balance to vary as a function of age. With respect to gender, we expected women to endorse identity accommodation more than men, a finding observed in previous research (Whitbourne, Sneed, & Skultety, 2002). We did not anticipate gender differences in identity assimilation and identity balance.

METHODS

Participants

The sample consisted of 173 adults (108 females and 65 males), primarily from New England, who ranged in age from 42 to 85 years ($M = 60.80$; $SD = 12.58$). The sample split approximately equally above (49.7%) and below (48.6%) the age of 60. The majority of the sample was Caucasian (85%) and married (69.9%); 19% of the sample was widowed. The sample was well educated, with 73% of the sample receiving at least some college education, and 72.3% of the sample fell into the middle to upper middle classes. Those aged 60 and older belonged to a higher socioeconomic class than those aged 60 and younger, $t(164) = -4.82$, $p < .0001$. Nearly half of the sample was retired (43.9%), and 36.4% reported having health problems such as high blood pressure and arthritis.

Materials

Identity and Experiences Scale.—The Identity and Experiences Scale (Whitbourne et al., 2002) is a self-report questionnaire designed to assess an individual's use of identity assimilation, identity accommodation, and identity balance on a continuous scale. (Although it is possible to design a scoring system in which individuals are categorized on the basis of high and low scores, we have found that dimensional scores reflect more accurately than categorical scores our underlying theoretical views.) The Identity and Experiences Scale is a 33-item measure consisting of three 11-item subscales. Each of the items is rated on a scale of 1 (not like me at all) to 7 (completely like me), with no item being reversed scored. The identity assimilation scale measures the extent to which the individual imposes his or her identity onto experiences and resists changing identity in response to new experiences, particularly those that are discrepant with the individual's current identity. This scale includes items such as "don't spend much effort reflecting on 'who' I am," "not very interested in advice from others," and "like to see myself as stable, consistent, and unlikely to change." The identity accommodation scale measures the extent to which the individual's identity incorporates changes based on experiences, particularly those that involve questioning or challenging current identity. Statements such as "have many doubts and questions about myself," "often wonder whether others like me," and "very influenced by what others think" tap this dimension. The identity balance scale measures the extent to which the individual approaches experiences with a consistent sense of self, but with the flexibility to incorporate

Table 1. Bivariate Correlations Between Constructs Used in Simultaneous Multiple Regression Analyses

Measure	1	2	3	4	5	6	7	8
1. Age	—							
2. Gender ^a	.13	—						
3. Identity assimilation	.30**	.01	—					
4. Identity accommodation	-.16*	-.31**	.02	—				
5. Identity balance	-.07	.11	.08	-.15*	—			
6. Public self-consciousness	.09	-.24**	.12	.49**	.08	—		
7. Self-reflection	-.13 ^b	-.10	-.13 ^b	.46**	.03	.43**	—	
8. Internal state awareness	-.15 ^b	-.08	-.01	.00	.35**	.23**	.21**	—

^aGender dummy coded as 0 = female and 1 = male.

^b $p < .10$.

* $p < .05$; ** $p < .01$.

discrepant information about the self into identity as the situation demands. The identity balance scale incorporates both identity assimilation and accommodation as ways of reacting to change. For example, “try to keep a steady course in life but am open to new ideas” incorporates assimilation (“try to keep a steady course”) as well as accommodation (“am open to new ideas”). Similarly, “have a clear sense of my goals but am willing to consider alternatives” includes assimilation (“a clear sense of my goals”) and accommodation (“am willing to consider alternatives”). Internal consistency for the three 11-item scales was estimated in the present study at .72 for identity assimilation, .86 for identity accommodation, and .86 for identity balance.

Self-Consciousness Scale.—We used the 23-item Self-Consciousness Scale by Fenigstein, Scheier, and Buss (1975) to operationalize public and private self-consciousness. The Self-Consciousness Scale is the most widely used dispositional measure of self-consciousness (Fenigstein, 1987). Participants respond to items along a 5-point scale ranging from “extremely uncharacteristic” to “extremely characteristic.” The public self-consciousness scale consists of seven items that measure general awareness of the self as a social object. Items such as “I’m self-conscious about the way I look” and “I’m concerned about the way I present myself” comprise the public self-consciousness scale. Cronbach’s alpha for this study was estimated at .70 for this scale. On the basis of research by Watson and colleagues (Watson et al., 1994; Watson, Morris, Ramsey, Hickman, & Waddell, 1996), we divided the private self-consciousness scale into an internal state awareness dimension and a self-reflection dimension. Items such as “Generally, I’m not very aware of myself” (reversed scored) tap the internal state awareness dimension, whereas items such as “I reflect about myself a lot” tap the self-reflection dimension. Cronbach’s alpha in this study was estimated at .55 for the four-item internal state awareness subscale and at .70 for the four-item self-reflection subscale. Internal consistency estimates for the three self-consciousness scales used in this study are comparable to estimates obtained in previous research (Reeves et al., 1995).

The identity assimilation scale and the self-reflection scale shared a similarly worded item, which on the identity assimilation scale was “Don’t spend much effort reflecting on ‘who’ I am” and on the self-reflection scale was “I reflect about myself a lot.” Having redundant items such as these can

artificially inflate observed correlations between two constructs. For this potential source of contamination to be eliminated, the identity assimilation scale was recalculated by removing this item. Internal consistency for the shortened 10-item identity assimilation scale was estimated at .67. All analyses reported in the present study use this shortened scale.

Procedure

Students in an introductory psychology course solicited the present sample by recruiting middle-aged and older adults (primarily parents and grandparents). Each student received a packet of materials including a demographics questionnaire, the Identity and Experiences Scale, and the Self-Consciousness Scale, among other measures not reported here. These students were offered a chance to receive extra course credit in return for obtaining the participation of an adult 40 years of age or older. Participants returned the questionnaires in a stamped, university-addressed envelope given to the students.

RESULTS

Our first objective was to assess how the theoretically selected self-consciousness variables relate to each of the identity processes. Our second objective was to examine whether the identity processes varied as a function of age and gender. In the two sections that follow, we first present the bivariate correlations among age, gender, the identity processes, and the self-consciousness variables; in the next section, we present the results of the multiple regression analyses conducted to assess the unique effect of age, gender, and the self-consciousness variables on the identity processes.

Bivariate Correlations

Table 1 presents the bivariate correlations between the constructs used in the multiple regression analyses. We found that identity assimilation was positively correlated with age, and, at the trend level, negatively correlated with self-reflection. Identity accommodation was negatively correlated with age and positively correlated with public self-consciousness and self-reflection. Men scored significantly lower than women on identity accommodation. Identity balance was positively correlated with internal state awareness. There were moderately strong correlations among the three self-consciousness variables, whereas the only significant correlation among the identity processes was a weak negative correlation between identity balance and identity accommodation.

Table 2. Simultaneous Multiple Regression Analyses Using Age, Gender, and Self-Consciousness Variables to Predict Identity Processes

Independent Variables	Identity Assimilation				Identity Accommodation				Identity Balance			
	<i>B</i>	<i>SE B</i>	β	95% CI	<i>B</i>	<i>SE B</i>	β	95% CI	<i>B</i>	<i>SE B</i>	β	95% CI
Age	.18	.05	.27**	.08, .27	-.14	.06	-.15*	-.25, -.02	-.04	.06	-.05	-.15, .08
Gender ^a	-.34	1.29	-.02	-2.88, 2.20	-4.84	1.51	-.20**	-7.82, -1.87	2.70	1.50	.14 ^b	-.26, 5.66
Public self-consciousness	.26	.14	.17 ^b	-.01, .53	.87	.16	.38**	.55, 1.18	.16	.16	.09	-.15, .47
Self-reflection	-.41	.21	-.17*	-.82, -.01	1.16	.24	.32**	.68, 1.63	-.19	.24	-.06	-.66, .28
Internal state awareness	.10	.23	.03	-.37, .56	-.77	.27	-.17**	-1.30, -.23	1.26	.27	.35**	.72, 1.79

Notes: Identity assimilation, accommodation, and balance are treated as dependent variables. *B* = unstandardized regression weight; *SE B* = standard error of *B*; β = standardized regression weight; 95% CI = 95% confidence interval for *B*. Age was mean centered at 60.80.

^aGender dummy coded as 0 = female and 1 = male.

^b*p* < .10.

p* < .05; *p* < .01.

Multiple Regression Analyses

To assess the unique effects of age, gender, and the self-consciousness variables on the identity processes, we conducted three separate simultaneous multiple regression analyses in which the identity processes were treated as dependent variables, and in which age, gender, and the self-consciousness variables were treated as independent variables. (Two-way age and gender interaction terms were included in a second step, but the change in *R*² was not significant for any of the identity processes.) A summary of these regression analyses is presented in Table 2.

Looking first at identity assimilation, we see, as predicted, that age was positively associated with identity assimilation ($\beta = .27$; *p* < .001) and that self-reflection was negatively associated with identity assimilation ($\beta = -.17$; *p* < .05). Unexpectedly, there was a marginally significant positive association between public self-consciousness and identity assimilation ($\beta = .17$; *p* < .06). This simultaneous regression equation accounted for 12% of the variance in identity assimilation: *F*(5,161) = 4.52 and *p* < .001. Looking next at identity accommodation, we see that all associations were in the expected direction: age ($\beta = -.15$; *p* < .02) and internal state awareness ($\beta = -.17$; *p* < .005) were negatively associated with identity accommodation, whereas public self-consciousness ($\beta = .38$; *p* < .001) and self-reflection ($\beta = .32$; *p* < .001) were positively associated with identity accommodation. Men also scored lower than women on identity accommodation ($\beta = -.20$; *p* < .002). The independent predictors in this equation accounted for 43% of the variance in identity accommodation: *F*(5,164) = 24.68 and *p* < .001. Finally, as predicted, identity balance was positively associated with internal state awareness ($\beta = .35$; *p* < .001). There was also a trend for men to score somewhat higher than women on identity balance ($\beta = .14$; *p* < .07). The independent variables in this analysis accounted for 15% of the variance in identity balance: *F*(5,164) = 5.56 and *p* < .001.

DISCUSSION

Our findings showed that identity balance alone was positively related to psychologically healthy internal state awareness. This suggests, in conjunction with previous research that showed identity balance to be positively associated with self-esteem (Sneed & Whitbourne, 2001), that being able to

incorporate changes within identity but at the same time maintain a consistent and positive view of the self is most conducive to successful adaptation in later adulthood. Favorable and unfavorable negative qualities characterized identity assimilation, which was associated with lower neurotic self-reflection but higher public self-consciousness (at the trend level). Reliance on identity assimilation was also found to be higher in older adults. Negative qualities appear to characterize identity accommodation across the board, as it was negatively related to psychologically healthy internal state awareness and positively related to neurotic self-reflection and public self-consciousness. Reliance on identity accommodation, in contrast to identity assimilation, was found to be lower in older adults.

Identity assimilation was positively associated with age and negatively associated with neurotic self-reflection, which taken together with previous research (Sneed & Whitbourne, 2001) adds to a growing body of work stressing the importance of maintaining positive self-regard through minimization of negative features and enhancement of positive features of the self in later adulthood. Self-enhancing evaluations have been associated with higher well-being and lower depression in a community sample of older women experiencing community relocation (Kwan, Love, Ryff, & Essex, 2003). Along similar lines, Wrosch and Heckhausen (2002) have observed that older adults who avoid thinking about or attributing control to themselves for regrettable behaviors are less likely to suffer from intrusive thoughts. However, as appeared in the present study, there may be some costs associated with using identity assimilation in that it was positively associated with public self-consciousness at the trend level. This suggests that attempting to maintain positive self-regard by minimizing or even denying age-related changes may carry with it the associated cost of becoming more aware and anxious about social evaluation.

Identity accommodation was inversely related to psychologically healthy internal state awareness, and it was positively related to neurotic self-reflection and public self-consciousness. This cluster of associations suggests, particularly for the women of this sample, that extreme identity accommodation is associated with lower levels of mental health and well-being in middle and later adulthood. People who score high on identity accommodation are likely to engage in negative self-evaluation and rumination. They are also afraid of being negatively evaluated by others, a combination that may make women in older adulthood especially vulnerable to depression.

Indeed, women are more likely than men to experience depression (Nolen-Hoeksema, Larson, & Grayson, 1999), and it has been suggested that part of women's vulnerability to depression may arise from the use of more internalizing defense mechanisms (Diehl, Coyle, & Labouvie-Vief, 1996). Supporting this view, Whitbourne and colleagues found identity accommodation to be positively associated with defensive turning against the self (Whitbourne et al., 2002).

The negative implications associated with identity accommodation converge with recent research on health engagement control strategies (Wrosch, Schulz, & Heckhausen, 2002). According to this research, health engagement control strategies are the active behavioral and cognitive efforts involved in preserving primary control potential in later life allowing individuals to pursue and attain their health-related goals. Cross-sectional analyses reveal that people who use health engagement control strategies are less likely to be depressed and to experience acute physical symptoms. When followed over a 14-month interval, they were found to experience fewer depressive symptoms. Identity accommodation may be conceptualized as similar to using low levels of health engagement control strategies. Instead of preserving primary control and continuing to pursue health-related goals in later life, individuals who use identity accommodation ruminate and brood over their inability to control their health and internalize negative age-related stereotypes.

The finding of a negative association between identity accommodation and age is discrepant with Brandstädter and Greve's (1994) finding of an "accommodative shift" in later adulthood. We believe this discrepancy is theoretical rather than empirical. Accommodation, according to Brandstädter and Greve's model, refers to the adjustment of a person's goals and aspirations in the face of age-related challenges. Accommodation, according to identity process theory, refers to making fundamental changes to the self in response to identity-discrepant experiences. In the first sense, it is a change of goals that reduces the discrepancy and maintains self-esteem; in the second, it is a change in the concepts used to define the self and its relationship with others. Although we did not directly assess Brandstädter and Greve's model in this study, future research empirically comparing the two models would help to clarify their distinguishing features.

Several limitations of the present study also have to be acknowledged. First, this study is based on cross-sectional data. As a result, the age effects found here are confounded with time of testing and cohort differences. Furthermore, a correlational study such as this one cannot allow for directionality to be determined. For example, we cannot conclude that because people with higher levels of accommodation also have lower levels of neurotic self-reflection and public self-consciousness that accommodation causes poorer mental health. Lower levels of mental health may lead individuals to be more accommodative, or a third unmeasured factor may be responsible.

Second, this study used only self-report measures. Shedler, Mayman, and Manis (1993) have argued that a significant proportion of people in the mental health spectrum can be classified as having illusory mental health and are not readily detected by use of self-report questionnaires. According to these authors, illusory mental health corresponds to those who self-report as psychologically healthy but are objectively rated

as distressed. These individuals, called defensive deniers, have a need to see themselves as well adjusted despite underlying vulnerability, and therefore deny much of their emotional life, showing little awareness of their needs, wishes, and feelings. It is possible that identity assimilation, measured by using only self-report, falls into this category.

Third, although we make inferences about mental health based on the observed relationships between the identity processes and self-consciousness variables, the identity processes have not been evaluated by use of measures explicitly designed to assess mental health. Further studies are investigating the relationships among the identity processes and psychological distress and psychopathology, for example, depression (Skultety, Whitbourne, & Jones, 2003).

Previous research on identity processes has examined relationships with physical functioning and positive self-regard. The present study extended this body of work by examining the relationship between the identity processes and self-consciousness, yielding a consistent set of findings that strongly support identity process theory. Used alone, neither identity assimilation nor identity accommodation appears to be particularly adaptive (although identity assimilation appears to be more adaptive than identity accommodation). However, when they are used together in a balanced way, the present findings suggest that they help to successfully meet the challenges associated with later adulthood. Identity process theory provides a particularly useful theoretical framework for understanding personality processes in the transition from middle to later adulthood. By defining successful aging as the ability to adapt flexibly to age-related changes without relinquishing central components of self-definition, identity process theory places the theoretical focus of understanding psychological development in adulthood squarely in the realm of the self.

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REFERENCES

- Andersen, S. M., & Chen, S. (2002). The relational self: An interpersonal social-cognitive theory. *Psychological Review*, *109*, 619–645.
- Baltes, P. B., & Baltes, M. M. (1990). Psychological perspectives on successful aging: The model of selective optimization with compensation. In P. B. Baltes & M. M. Baltes (Eds.), *Successful aging: Perspectives from the behavioral sciences* (pp. 1–34). New York: Cambridge University Press.
- Block, J. (1982). Assimilation, accommodation, and the dynamics of personality development. *Child Development*, *53*, 281–295.
- Brandstädter, J., & Greve, W. (1994). The aging self: Stabilizing and protective processes. *Developmental Review*, *14*, 52–80.
- Brandstädter, J., & Renner, G. (1990). Tenacious goal pursuit and flexible goal adjustment: Explication and age-related analysis of assimilative and accommodative strategies in coping. *Psychology and Aging*, *5*, 58–67.
- Diehl, M., Coyle, N., & Labouvie-Vief, G. (1996). Age and sex differences in strategies of coping and defense across the life span. *Psychology and Aging*, *11*, 127–139.

- Diehl, M., Hastings, C. T., & Stanton, J. M. (2001). Self-concept differentiation across the adult life span. *Psychology and Aging, 16*, 643–654.
- Fenigstein, A. (1987). On the nature of public and private self-consciousness. *Journal of Personality, 55*, 543–553.
- Fenigstein, A., Scheier, M. F., & Buss, A. H. (1975). Public and private self-consciousness: Assessment and theory. *Journal of Consulting and Clinical Psychology, 43*, 522–527.
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94*, 319–340.
- Ingram, R. E. (1990). Self-focused attention in clinical disorders: Review and a conceptual model. *Psychological Bulletin, 107*, 156–176.
- Kwan, C. M. L., Love, D. G., Ryff, C. D., & Essex, M. J. (2003). The role of self-enhancing evaluations in a successful life transition. *Psychology and Aging, 18*, 3–12.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Lecky, P. (1945). *Self-consistency: A theory of personality*. New York: Island Press.
- Levy, B. R., Slade, M. D., & Kasl, S. V. (2002). Longitudinal benefit of positive self-perceptions of aging in functional health. *Journal of Gerontology: Psychological Sciences, 57B*, P409–P417.
- Levy, B. R., Slade, M. D., Kunkel, S. R., & Kasl, S. V. (2002). Longevity increased by positive self-perceptions of aging. *Journal of Personality and Social Psychology, 83*, 261–270.
- Markus, H. R., & Nurius, P. (1986). Possible selves. *American Psychologist, 41*, 954–969.
- Nelson, T. D. (Ed.). (2002). *Ageism: Stereotyping and prejudice against older persons*. Cambridge, MA: MIT Press.
- Nolen-Hoeksema, S., Larson, J., & Grayson, C. (1999). Explaining the gender difference in depressive symptoms. *Journal of Personality and Social Psychology, 77*, 1061–1072.
- Piaget, J. (1977). *The development of thought* (A. Rosin, Trans.). Oxford, England: Basil Blackwell. (Original work published 1975)
- Reeves, A. M., Watson, P. J., Ramsey, A., & Morris, R. J. (1995). Private self-consciousness factors, need for cognition, and depression. *Journal of Social Behavior and Personality, 10*, 431–443.
- Rowe, J. W., & Kahn, R. L. (1987). Human aging: Usual and successful. *Science, 237*, 143–149.
- Rowe, J. W., & Kahn, R. L. (1998). *Successful aging*. New York: Pantheon/Random House.
- Shedler, J., Mayman, M., & Manis, M. (1993). The illusion of mental health. *American Psychologist, 48*, 1117–1131.
- Skultety, K. M., Whitbourne, S. K., & Jones, K. M. (2003, November). *Identity processes, fears about aging, and depression in middle-aged and older adults*. Paper presented at the 56th Annual Scientific Meeting of The Gerontological Society of America, San Diego, CA.
- Sneed, J. R., & Whitbourne, S. K. (2001). Identity processing styles and the need for self-esteem in older adults. *International Journal of Aging and Human Development, 52*, 323–333.
- Trapnell, P. D., & Campbell, J. D. (1999). Private self-consciousness and the five factor model of personality: Distinguishing rumination from reflection. *Journal of Personality and Social Psychology, 76*, 284–304.
- Watson, P. J., Hickman, S. E., Morris, R. J., Stutz, N. L., & Whiting, L. (1994). Complexity of self-consciousness subscales: Correlations of factors with self-esteem and dietary restraint. *Journal of Social Behavior and Personality, 9*, 761–774.
- Watson, P. J., Morris, R. J., Ramsey, A., Hickman, S. E., & Waddell, M. G. (1996). Further contrasts between self-reflectiveness and internal state awareness factors of private self-consciousness. *The Journal of Psychology, 130*, 183–192.
- Whitbourne, S. K. (1986). *The me I know: A study of adult identity*. New York: Springer-Verlag.
- Whitbourne, S. K. (1987). Personality development in adulthood and old age: Relationships among identity style, health, and well-being. In K. W. Schaie (Ed.), *Annual review of gerontology and geriatrics* (Vol. 7, pp. 189–216). New York: Springer.
- Whitbourne, S. K. (1996a). *The aging individual: Physical and psychological perspectives*. New York: Springer.
- Whitbourne, S. K. (1996b). Psychosocial perspectives on emotions: The role of identity in the aging process. In C. Magai & S. H. McFadden (Eds.), *Handbook of emotion, adult development, and aging* (pp. 83–98). San Diego, CA: Academic Press.
- Whitbourne, S. K., & Collins, K. J. (1998). Identity processes and perceptions of physical functioning in adults: Theoretical and clinical implications. *Psychotherapy, 35*, 519–530.
- Whitbourne, S. K., Sneed, J. R., & Skultety, K. M. (2002). Identity processes in adulthood: Theoretical and methodological challenges. *Identity: An International Journal of Theory and Research, 2*, 29–45.
- Wrosch, C., & Heckhausen, J. (2002). Perceived control of life regrets: Good for young and bad for old. *Psychology and Aging, 17*, 340–350.
- Wrosch, C., Schulz, R., & Heckhausen, J. (2002). Health stresses and depressive symptomatology in the elderly: The importance of health engagement control strategies. *Health Psychology, 21*, 340–348.

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