



Published in final edited form as:

J Pers. 2010 August 1; 78(4): 1353–1382. doi:10.1111/j.1467-6494.2010.00653.x.

The Relevance of Big Five Trait Content in Behavior to Subjective Authenticity: Do High Levels of Within-Person Behavioral Variability Undermine or Enable Authenticity Achievement?

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Abstract

Individuals vary their behavior from moment to moment a great deal, often acting “out of character” for their traits. This article investigates the consequences for authenticity. We compared two hypotheses—*trait consistency*: individuals feel most authentic when acting in a way consistent with their traits; and *state-content significance*: some ways of acting feel more authentic because of their content and consequences, regardless of the actor’s corresponding traits. Three studies using experience-sampling methodology in laboratory and natural settings, with participants aged 18–51, strongly supported the state-content significance hypothesis and did not support the trait-consistency hypothesis. Authenticity was consistently associated with acting highly extraverted, agreeable, conscientious, emotionally stable, and intellectual, regardless of the actor’s traits. Discussion focuses on possible implications for within-person variability in behavior and for the nature of the self-concept.

Despite having traits, individuals act out of character from their traits most of the time (Fleeson, 2001; Heller, Komar, & Lee, 2007; Mischel, 1968). For example, introverts act extraverted and extraverts act introverted regularly and routinely. Fleeson (2007), building on the work of Epstein (1979), Mischel (1968), and Snyder (1987), showed that much of this variation is associated with changes in situational forces. That is, much of the time people are acting out of character due to external situations requiring them to change the way they act. Given this continuous shifting of which traits people are expressing in their behavior in the face of situational pressures, the purpose of this article is to answer the question, when do people feel as though they are being true to themselves?

Authenticity

Authenticity has been held in high esteem throughout modern history by prominent philosophers and psychologists alike (Harter, 2002). Existentialists wrote about the moral supremacy of “becoming that self which one truly is” (Kierkegaard, 1849/1941, p. 29). It is deemed a basic value to act in accordance with one’s own character (Ryan & Deci, 2004). Acting in accordance with one’s true self is considered honest and sincere; acting not like oneself to fit in, or pretending to be someone one is not, is considered manipulative and harmful to oneself and one’s relationships (Horney, 1950; Kernis & Goldman, 2005b). For example, a glum person acting like a social butterfly at a party or someone going to an art show to appear erudite is considered dishonest or unhealthy. Authenticity has also been linked to well-being, self-esteem, positive affect, hope for the future, creativity, quality of

relationships, optimal self-esteem, and reduced negative affect (Harter, 2002; Harter, Marold, Whitesell, & Cobbs 1996; Kernis, 2003; Sheldon, Ryan, Rawsthorne, & Ilardi, 1997). Inauthenticity may be especially pertinent in light of the complex, changing, modern psychological landscape that people face in everyday life (Lerner, 1993).

In this article, we focus on the individual's own judgment about his or her authenticity at any given moment. We define *subjective authenticity* as the judgment that one's current actions express one's true self (Kernis & Goldman, 2005b). A person is high in subjective authenticity when agreeing that he or she is "really being me" or "acting like my true self." A person is low in subjective authenticity when judging that he or she is "putting on an act" or does not "feel like my true self."

We believe it is important to track the achievement of authenticity for at least three reasons. First, given the association of authenticity to multiple indicators of psychological well-being (Harter, 2002; Kernis & Goldman, 2005a; Sheldon et al., 1997), it is important to determine the conditions under which people achieve authenticity. Secondly, this article will address the meaning of within-person variability in behavior, which has been of great interest in psychology (Fleeson, 2001; Heller et al., 2007; Mischel, 1968; Snyder, 1974). This study tests whether within-person variation in behavior is relevant to subjective judgments of authenticity. Third, this article tests whether authenticity is related to the consistency between the action and the actor's underlying traits or, conversely, to the content of the action itself.

Assessing Big Five Trait Content in Behavior and Its Association to Authenticity

The central question in this study is whether frequent changes in behavior, specifically Big Five trait-relevant behavior, are associated with changes in authenticity, and if so, how. We are using the Big Five because they are commonly accepted to be major dimensions of personality (McCrae & Costa, 1994). "Personality state" assessment assesses the degree to which each Big Five trait content is manifest in behavior at any moment (Fleeson, 2001; Fridhandler, 1986). Manifestation of a trait spans a dimension from one end (e.g., introverted) to the other (e.g., extraverted). In a series of experience-sampling studies, Fleeson (2001) showed that people have a highly stable typical level at which they manifest a given trait, but that most of the time, people are not manifesting the trait at their typical level. Rather, most of the time people manifest the trait in their behavior to a lesser or greater degree than is typical for them, often quite a bit lesser or greater. For example, extraverts often act introverted and introverts often act extraverted. That is, most of the time, people are acting "out of character."

This article tests whether this sizable within-person behavioral variability predicts changes in authenticity by assessing the within-person associations between behavior and reported authenticity. In a within-person association, each person will be compared to him- or herself across time. The times the individual is feeling more authentic will be compared to the times the individual feels less authentic to determine whether the individual is behaving differently at those times.

Two Hypotheses of the Relevance of Big Five States to Authenticity

The *trait-consistency* hypothesis claims that authenticity is generated when individuals act in a way consistent with their traits, whereas inauthenticity is generated when individuals act in a way inconsistent with their traits, and that having to change one's behavior to accommodate situations takes a toll. This intuitive hypothesis is a generally held belief that people are authentic when they act in line with their traits. It is intuitive, for example, that introverts would feel more authentic when acting introverted and feel less authentic when

acting extraverted. Acting in accordance with one's traits feels more natural, whereas acting "out of character," presumably to accommodate outside situational pressures, may be experienced as inauthentic, faking it, or putting on an act, and may even be costly (Cross, Gore, & Morris, 2003; Donahue, Robins, Roberts, & John, 1993; McGregor, McAdams, & Little, 2006). For example, an introvert acting extraverted to fit in, a gloomy person acting like a social butterfly at a social event, or a traditional individual going to a modern art show only because others are going may not be authentic behaviors. This intuition has never been tested.

This trait-consistency hypothesis is based on an essentialist view of traits. In an essentialist view, the Big Five traits are considered to be the primary basis of personality (Costa & McCrae, 1992; McGregor et al., 2006), determined by genes (Bouchard, 2004), and consistent throughout life (McCrae & Costa, 1994). Traits are integral or essential to who one is as a person (McCrae & Costa, 1994). Thus, to be true to oneself is to be true to the basic essential core of one's traits. This essentialist view is reflected in individuals' beliefs about themselves. Traits are important parts of self-concepts and identities and are relevant to how people think about themselves and describe themselves (Higgins, Klein, & Strauman, 1985; McCrae & Costa, 1994; Montemayor & Eisen, 1977). Thus, individuals will likely feel true to themselves when they feel true to their traits.

There is some indirect support for the trait-consistency hypothesis. First, the relationship between enacting certain behaviors and pleasant affect has been shown in two studies to depend on the level of one's traits (Côté & Moskowitz, 1998; Emmons, Diener, & Larsen, 1986). Additionally, Sheldon et al. (1997) used the Self-Concept Differentiation Scale (Donahue et al., 1993) to show that individuals felt more authentic in life roles in which they reported being more consistent with their traits. However, the Sheldon et al. (1997) findings were based on questionnaire measures of how participants believed they were in various roles; we extend their work by investigating how individuals feel at the moment of acting in different ways.

The trait-consistency hypothesis predicts that the relationship between state authenticity and personality states should be characterized by a negative, curvilinear function, centered on the individual's dispositional level of the trait. An individual should feel most authentic (the peak of the curve) when acting at his or her dispositional level of the trait and decreasingly authentic as his or her behavior becomes increasingly different from this level. This should occur in both directions (both acting at a higher level and at a lower level of the trait), creating downward slopes away from the peak. For example, the trait-consistency hypothesis predicts that an individual with a moderate level of trait Extraversion would feel most authentic when acting moderately extraverted and less authentic when acting introverted or very extraverted.

The *state-content significance* hypothesis claims that what people are doing (the content and properties of their behavior) is what is important to authenticity. Thus, there may be associations between the content of behavior and authenticity, in common ways across individuals, independent of consistency of that behavior with the actor's traits. This hypothesis is less intuitive than the trait-consistency hypothesis because it predicts that some individuals might feel most true to themselves when acting "out of character" (e.g., introverts might feel most true to themselves when acting extraverted and feel least true to themselves when acting introverted). Although counterintuitive, there is some rationale for this hypothesis. Certain ways of acting may feel more natural and unconstrained, as though they originated within the individual rather than from without (Lynch & Ryan, 2004; Maslow, 1968; Rogers, 1961; Sheldon et al., 1997). Some states might be conducive to expressing values, beliefs, or opinions (Harter et al., 1996), and expressing values or beliefs

may lead to the sense of being true to oneself. Humanistic theories (Maslow, 1968; Rogers, 1961) argue that behaviors that produce growth increase authenticity. Indeed, a super factor composed of Extraversion and Intellect has been described as a growth-oriented trait (Saucier, 1994), so acting those ways may produce authenticity. Additionally, we are aware of one piece of indirect support for the state-content significance hypothesis. Sheldon et al. (1997) showed that the roles in which people felt more authentic were the roles in which people reported being more extraverted, agreeable, conscientious, emotionally stable, and intellectual.

However, Sheldon et al. (1997) used retrospective questionnaire measures, which required participants to reflect on and provide their beliefs about how they act in various roles and how authentic they felt in those roles. In the current studies, we build on this research by obtaining reports of behavior and feelings as they are occurring. We believe that a supportive finding would suggest that the content of states is important and that what people are doing, rather than the behavior's consistency with the actors' underlying traits, is what matters to subjective authenticity. In contrast to the trait-consistency hypothesis, which predicts curvilinear relationships between states and subjective authenticity, the state-content significance hypothesis predicts linear relationships between states and subjective authenticity. The state-content significance hypothesis assumes that the more of the content that has consequences for authenticity, the more authenticity. For example, if the content of extraverted states enhances subjective authenticity, then the more extraverted the more authenticity; extraverted states will have a positive and linear relationship with authenticity.

Overview of Studies

We present one preliminary and four full studies in this article. The preliminary study tests whether the trait-consistency hypothesis is held generally as an intuitive belief. The first and second full studies test the trait-consistency and state-content significance hypotheses in a laboratory setting with college-age samples. The third study extends Studies 1 and 2 by testing the hypotheses in a naturalistic setting with a sample of adults ranging in age from 18 to 51. The fourth study is included to determine whether retrospective summary reports of authenticity provide the same results as in-the-moment, experience-sampling reports provide.

PRELIMINARY STUDY: INTUITIONS ABOUT AUTHENTICITY

We believe the trait-consistency hypothesis is a strongly intuitive hypothesis, held as a common belief in our culture. To test this expectation, we asked participants their opinion about authenticity with five direct questions.

Method, Results, and Discussion

Two hundred thirty-eight students answered five questions as part of a larger questionnaire. The first question was "When do you think introverts would feel most authentic?" Participants circled one of two answers: "when they are acting introverted" or "when they are acting extraverted." Two hundred eleven of the 238 participants (89%) answered that introverts would feel most authentic when acting introverted. The second question was the same except for substituting "like they are being their true self" for "authentic," and 210 of 238 circled "when acting introverted." Two more questions used the same format but asked about extraverts and revealed that 94% and 93% responded that extraverts would feel most authentic and most like their true selves when acting extraverted. The remaining question revealed that the sample included 100 self-identified introverts and 138 self-identified extraverts. We believe these results demonstrate strong agreement in intuitions that

individuals will feel most authentic when acting in a manner consistent with their traits, e.g., that introverts will feel most authentic when acting introverted, not when acting extraverted.

STUDY 1

Testing the trait-consistency hypothesis and state-content significance hypothesis in behavior requires collecting multiple assessments of each participant's behavior and concurrent authenticity on multiple occasions. All three experience-sampling studies described in this article were large-scale studies with multiple objectives. Only the methods directly relevant to this article are described. In Study 1, participants come repeatedly to the laboratory to participate in 10 different activities (e.g., playing Twister, debating medical ethics, painting) over 10 weeks. These data will be used to determine how often individuals believe they are being authentic, whether the Big Five content of behavior is related to that belief, and whether Big Five content matters because of its consistency to trait levels or is irrespective of trait levels.

Method

Participants—Participants were 47 undergraduate students attending Wake Forest University enrolled in a larger study. Two participants provided fewer than six valid reports of behavior and were excluded from all analyses. Participants were compensated up to \$90.

Procedure

Session procedure: Participants participated in 10 approximately 50-minute sessions over the course of 10 weeks in groups of three or four. Group composition differed across sessions. Each session consisted of one or two activities, such as playing Twister, painting a picture, or discussing medical ethics. Because a goal of this study was to assess naturally occurring behavior and authenticity, it was important that the set of activities (a) were reasonably representative of situations encountered in real life, (b) were unstructured enough to allow for a wide range of behaviors from the individuals, and (c) provided a variety of settings and tasks so as to provide opportunity for each level of each of the Big Five states. Participants were observed as they interacted for purposes related to other studies.

After about 20 minutes and after about 40 minutes, participants rated their behavior and authenticity during the preceding 20 minutes. There were 10 sessions, two ratings per session, and 46 participants for a total of 920 possible reports of behavior. Participation was good, with the average participant supplying 18.6 of the 20 possible reports for a total of 856 reports.

Materials

Personality states: Ratings of personality states during sessions were made with state versions of traditional adjective-based Big Five scales (Goldberg, 1992). A personality state is defined in this approach as a dimension with the same content and scale as a personality trait but one that assesses the person at the moment rather than the person in general. For example, the content of Extraversion is talkativeness, boldness, and assertiveness; a 5 on a 7-point state Extraversion dimension means the individual is being moderately talkative, bold, and assertive at the moment. Participants described their behavior during the previous half of each session (e.g., "During the last 20 minutes, I was ...). Rather than rate their behavior at the level of the Big Five, participants rated the degree to which their behavior was described by five specific components of each of the Big Five traits: Extraversion—talkative, assertive, shy (*r*), bold, and energetic; Agreeableness—rude (*r*), cooperative, distrustful (*r*), trustful, and kind; Conscientiousness—organized, careful, steady, conscientious, and undependable (*r*); Emotional Stability—touchy (*r*), imperturbable,

irritable (r), temperamental (r), and insecure (r); Intellect— creative, intellectual, philosophical, uncreative (r), and unimaginative (r). Cronbach's alphas were as follows: for Extraversion, $\alpha = .83$; for Agreeableness, $\alpha = .69$; for Conscientiousness, $\alpha = .62$; for Emotional Stability, $\alpha = .61$; and for Intellect, $\alpha = .75$. Each adjective was responded to on a 1 to 7 scale with 7 being the most descriptive (e.g., for talkative, 7 would indicate that talkative was very descriptive).

State authenticity was assessed with the following three items: "I was my true self during the last 20 minutes," "I felt authentic in the way I acted during the last 20 minutes," and "I felt like I was really being me during the last 20 minutes" ($\alpha = .97$). Authenticity items were responded to on 1 to 7 scales, with 7 being most descriptive. Each authenticity item closely resembles the definition of authenticity used in this article, the judgment that one is acting in accordance with one's true self (Kernis & Goldman, 2005b). If participants felt they could not assess their behavior on any item, they had the option of marking the item as nonapplicable ("N/A") on their rating sheet. Other items not addressed in this article were also included, to make a total of 41 items per report.

State affect: Positive and negative affect were measured with two positive adjectives (excited, enthusiastic; $\alpha = .91$) and two negative adjectives (nervous, distressed; $\alpha = .53$) selected from the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988).

Personality traits: The Big Five factors of personality were assessed by the standard versions of adjective-based Big Five scales (Goldberg, 1992). The Big Five trait scales consisted of the same 25 adjectives as the Big Five state scale and were responded to on a scale from 1 to 7, with 7 being the most descriptive. Reliabilities were as follows: for Extraversion, $\alpha = .76$; for Agreeableness, $\alpha = .59$; for Conscientiousness, $\alpha = .39$; for Emotional Stability, $\alpha = .63$; and for Intellect, $\alpha = .70$.

Results and Discussion

Amount of Authenticity During Everyday-Type Behavior—The basis for this research is the assumption that individuals do not have one level of authenticity only, but rather different levels at different times. To characterize an individual's authenticity, then, requires incorporating those changing levels. This is done by creating a density distribution of authenticity states for each individual separately. A density distribution describes the frequency that the given individual felt each of the possible levels of authenticity.

The mean of an individual's authenticity density distribution can be calculated to determine how authentic that individual felt on a typical occasion. The average across individuals of these means was $M = 5.60$ (on a 1 to 7 scale), meaning that the typical individual felt authentic on a typical occasion. The standard deviation of an individual's density distribution indicates how much his or her authenticity changed from occasion to occasion. The average across these standard deviations was .92, indicating that there is much variability in authenticity within the typical individual. In fact, only 37% of the variance in authenticity was between-people—the other 63% of the variance in authenticity was within-person, that is, due to each person feeling more authentic on some occasions and less authentic on other occasions. It is these within-person fluctuations from high to low subjective authenticity (and back again) that we are trying to predict.

Distributions of Personality States—Similar distributions were computed for each individual for each Big Five state and can be interpreted similarly to the authenticity distribution (see Table 1). For example, the typical individual had a state extraversion of

4.30 (on a 1 to 7 scale) on a typical occasion, and the amount that the typical individual's extraversion state varied was .98, replicating previous findings that the typical individual's extraversion varies substantially (Fleeson, 2001). For all five traits, the vast majority of the total variability in trait expression was due to each person acting in different ways at different times (from 62% to 78%), not due to different people acting in consistently different manners (from 22% to 38%). That is, people were rarely acting in character.

The Trait-Consistency Hypothesis—The trait-consistency hypothesis predicts a curvilinear relationship between state authenticity and Big Five personality states, with a peak of the curve near the person's trait level. A person should have a maximum level of authenticity that occurs on occasions he or she acts at the same level as his or her corresponding trait. Deviations from the trait level should result in decreases in state authenticity, creating a negative curvilinear relationship between state authenticity and personality states, with two negative slopes descending from the peak. For example, if a person's trait level of extraversion is 4 on a 1 to 7 scale with 7 being the most extraverted, that person should have a peak level of authenticity when acting at moderate (4) levels of extraversion and should have lower levels of authenticity when acting at any other state level of extraversion.

Analysis was done using multilevel modeling (MLM, also known as hierarchical linear modeling) in SPSS version 15.0 with the Mixed Modeling procedure. MLM is equivalent to analyzing each participant individually to obtain an association between the independent variables and dependent variables for each individual and then conducting a meta-analysis on those results to find the typical individual's association. However, MLM estimates all analyses simultaneously to produce one coefficient, which is akin to the average of the individual coefficients. All predictor variables (personality states) were centered within-person, in order to focus the results on within-person processes rather than a mix of within-person and between-person processes. MLM handles well the violation of independence of reports within-persons resulting from repeated measures designs. Note that there is some nonindependence in these data that MLM is not handling. Namely, participant interaction in groups and multiple ratings per session resulted in some nonindependence.

In order to test for a curvilinear relationship, quadratic terms were created by squaring the personality state values. State authenticity was then predicted from the quadratic term for a given Big Five state and from the corresponding linear term (the linear term is necessary for interpreting the quadratic term, but itself is not interpretable as the linear effect). Constants and the associations of both the state term and the quadratic term were allowed to vary across individuals during the estimation process (error terms were estimated for between-person differences in constants and in coefficients). The coefficients reflecting the typical individual's relationship between squared personality state terms and state authenticity did not reach significance for any state: Extraversion, $b = -.05$, $p = .09$; Agreeableness, $b = -.07$, $p = .34$; Conscientiousness, $b = -.07$, $p = .25$; Emotional Stability, $b = .05$, $p = .35$; and Intellect, $b = -.05$, $p = .17$.

The State-Content Significance Hypothesis—The state-content significance hypothesis predicts that certain states increase authenticity due to their content; thus, the more an individual acts in those ways, the more authentic he or she will feel. The top panel of Table 2 shows the results of five MLM analyses. In each analysis, state authenticity was the DV and one of the Big Five states was the IV. The intercept and the effect of the Big Five state were allowed to vary across participants. The betas can be interpreted similarly to unstandardized betas from regular regressions. They reveal the associations between variation in the state and variation in authenticity for the typical individual. For example, the beta relating state authenticity to state Extraversion was $b = .56$, $p < .001$, meaning that a 1-

point increase in state Extraversion was associated with a .56 increase in state authenticity for the typical individual. State authenticity increased for the typical individual when the individual increased in each of Agreeableness, Conscientiousness, Emotional Stability, Extraversion, and Intellect.

An additional analysis predicting authenticity from all five states simultaneously was conducted in order to control for possible overlap among the Big Five states and to reveal the unique association of state authenticity to each personality state. Constants were allowed to vary across participants but coefficients were not because it would create too many covariances among the betas and intercepts for the analysis to estimate. Significant linear relationships remained between state authenticity and state Extraversion ($b = .54, p < .001$), state Emotional Stability ($b = .11, p < .01$), and state Intellect ($b = .13, p < .001$). This consistent evidence in favor of the state-content significance hypothesis revealed that behavior state did predict subjective authenticity and specifically that the Big Five content of the behavior state was predictive.

It is possible that this result was due to a “feeling good” effect, such that individuals rated themselves as high on all positive items (traits and authenticity) when feeling good and rated themselves as low on the positive items when feeling bad. Because participants had also rated their current positive and negative affect at each report, we addressed this possibility by repeating the analyses, controlling for participants’ affect at the moment. A multilevel model was conducted entering all personality states, positive affect, and negative affect simultaneously. Results from this analysis showed that both Extraversion ($b = .49, p < .001$) and Intellect ($b = .13, p < .001$) retained their significant relationships to authenticity while controlling for affect, whereas state Emotional Stability’s relationship to authenticity became marginally significant ($b = .08, p = .07$). Positive affect ($b = .05, p = .07$) and negative affect ($b = -.07, p = .07$) had marginally significant relationships to authenticity. Thus, traits held their significant prediction of authenticity even controlling for both positive and negative affect.

Dispositional Trait Level as Moderator—The result that deviating from one’s trait level did not predict lowered authenticity may have been due to our analytic approach. An alternative test of the trait consistency hypothesis is to test for an interaction between dispositional trait levels and state levels in predicting authenticity. For example, introverts might not have as strong a relationship between state extraversion and state authenticity as extraverts do.

A multilevel model was conducted for each Big Five personality state, in which state authenticity was predicted from the personality state, the corresponding dispositional trait as measured in the questionnaire, and the personality state \times personality trait interaction term, formed by multiplying the trait by the state. Participants’ personality traits were zero-centered around the entire sample’s mean for each respective personality trait. None of the interactions was significant, indicating that the relationships between state authenticity and Big Five personality states did not depend on a participant’s respective trait levels. Thus, this alternative test of the trait-consistency hypothesis also did not support it. (Analyses were repeated using individuals’ mean levels of the given state as their level of the trait, rather than their score on the trait questionnaire; results were highly similar.)

STUDY 2: REPLICATION WITH HIGH POWER

Study 1 provided evidence that despite frequently acting in ways that differ from their traits, individuals are able to maintain a high sense of authenticity. There were two surprising findings in Study 1: (1) despite the cultural assumption that consistency with one’s traits

would predict authenticity, it did not; and (2) the content of states predicted variations in state authenticity in a predominantly linear fashion for Extraversion, Emotional Stability, and Intellect, even when controlling for the effects of positive affect and negative affect on state authenticity, and even when controlling for the other Big Five states. Study 1 also revealed that the relationships between state authenticity and personality states did not generally depend on levels of the participants' personality traits.

Given the counterintuitive nature of these two findings, the remainder of this article concerns whether it is possible to establish these findings definitively, that is, whether these findings are robust to additional and stringent tests. Thus the main goal of Study 2 is to replicate the method of Study 1. Additionally, Study 2 doubles both participants and occasions per participant to greatly increase the power from Study 1, in order to be sure the curvilinear and interactive tests of the trait-consistency hypothesis did not fail for only power reasons. If there are curvilinear or interactive relationships, we should be able to detect them with the enhanced power in Study 2.

Method

The method was the same as in Study 1, except where noted below.

Participants—The 97 participants in this study come from the Integrating Process and Structure in Personality project (IPSP). The IPSP project is designed to intensively assess a large number of behaviors of a large number of individuals in a variety of naturalistic situations and activities. Two participants provided fewer than six valid reports and were excluded from all analyses. Participants were compensated up to \$210 for participating.

Procedure—Participants completed 1,684 ratings of their behavior and authenticity across 10 different hour-long sessions, creating an average of 17.66 ratings per participant and an 89% response rate (1,684 out of 1,900 possible). Occasional problems (e.g., participants leaving the suite to use the restroom or talking about their ratings) led to 18 reports of behavior being excluded from analyses.

Measures

Personality states and affect states: Each Big Five state was represented by four bipolar items. Each item loaded strongly on the factor it was assigned, with the exception of “unexcitable-excitable”; therefore, this item was not included in analysis. Reliabilities for personality states were as follows: for Extraversion (silent-talkative, unenergetic-energetic, unassertive-assertive, and timid-bold), $\alpha = .78$; for Agreeableness (uncooperative-cooperative, rude-polite, cold-warm, stingy-generous, and trustful-distrustful), $\alpha = .71$; for Conscientiousness (careless-thorough, disorganized-organized, frivolous-serious, lazy-hardworking, and inefficient-efficient), $\alpha = .72$; for Emotional Stability (insecure-secure, nervous-at ease, tense-relaxed, and unexcitable-excitable), $\alpha = .81$; and for Intellect (unimaginative-imaginative, uninquisitive-curious, uncreative-creative, and imperceptive-perceptive), $\alpha = .83$. The Big Five personality states were intercorrelated (r s from .08 to .64). State positive and negative affect were measured with three positive adjectives (enthusiastic, excited, and happy; $\alpha = .91$) and three negative adjectives (upset, irritable, and nervous; $\alpha = .68$).

Authenticity: State authenticity was assessed with the following three new items, which differed from Study 1 but maintained the core aspect of authenticity and a strong similarity to existing measures of authenticity: “How much were you acting like your true self?” “How much were you putting on an act (R)?” and “How accurate an impression would someone have of you from the way you were acting?” (1–7 scales, $\alpha = .76$).

Personality traits: Each Big Five trait was assessed with four unipolar items: Reliabilities were, for Extraversion, Cronbach's $\alpha = .61$; for Agreeableness, $\alpha = .79$; for Conscientiousness, $\alpha = .60$; for Emotional Stability, $\alpha = .69$; and for Intellect, $\alpha = .53$.

Results and Discussion

Distributions of Authenticity and Personality States—The typical participant had a high average authenticity of $M = 5.59$ on a 1–7 scale and also reported a wide range of authenticity states, $SD = .73$. Table 1 shows the typical individual's means and standard deviations for each personality state. These parameters were similar to those obtained in Study 1 and again point out that the typical individual expresses very different behaviors across 10 hours of activities.

The Trait-Consistency Hypothesis—If acting at increasingly different state levels from one's trait level reduces authenticity, then there will be an upside-down U-shaped association between state level and authenticity, with a peak authenticity reached near the person's trait level. Multilevel models revealed significant negative curvilinear predictions of authenticity for two states, Emotional Stability, $b = -.09, p < .05$, and Intellect, $b = -.05, p < .05$. Coefficients relating all other squared personality state terms to state authenticity were not significant: Extraversion, $b = -.03, p = .18$; Agreeableness, $b = .01, p = .88$; Conscientiousness, $b = -.04, p = .09$. Further analyses of the equations relating Emotional Stability and Intellect to authenticity revealed that the typical individual's "peaks" were at 12.02 and 8.64, respectively, meaning that a person would have to get up to an Emotional Stability of 12.02 or Intellect of 8.64 (both on 1–7 scales) before further increases would result in declining authenticity. Since this is impossible, these results do not support the trait-consistency hypothesis but in fact show a similar steady increase to that predicted by the state-content significance hypothesis, albeit one in which the rate of increase slowed as Emotional Stability and Intellect increased.

The State-Content Significance Hypothesis—Five separate MLM analyses were conducted, one for each Big Five personality state predicting state authenticity. Table 2 shows that each Big Five state significantly and linearly predicted authenticity again. Predicting authenticity from all five states simultaneously revealed that significant unique relationships remained between state authenticity and all five personality states, even controlling for the other states: Extraversion, $b = .24, p < .001$; Agreeableness, $b = .16, p < .001$; Conscientiousness, $b = .12, p < .001$; Emotional Stability, $b = .15, p < .001$; Intellect, $b = .08, p < .01$. To address the "feeling good" alternative, we predicted authenticity from all personality states and positive and negative affect simultaneously. All five personality states retained their significant relationships to authenticity. State positive affect ($b = .10, p < .001$) was significantly related to state authenticity, as was negative affect ($b = -.07, p < .05$).

Trait Levels as Moderators—Because this study tested more participants, it had greater power than Study 1 to detect significant interactions between dispositional trait level and behavior predicting authenticity. Results from five multilevel models revealed that no dispositional trait \times state interaction was significant. This means that a participant's relationships between state authenticity and personality states did not depend on a participant's Big Five dispositional trait levels. Significant main effects for dispositional Extraversion ($b = .20, p = .05$), dispositional Agreeableness ($b = .27, p < .01$), and dispositional Conscientiousness ($b = .33, p < .01$) were revealed, such that individuals higher on those three dispositional traits reported greater authenticity.

STUDY 3: ADULTS IN NATURALISTIC SETTINGS

Studies 1 and 2 consistently supported the conclusions that subjective authenticity is typically high, related to the content of behavior, and not related to consistency of an individual's behavior with his or her trait levels. However, two limitations of these studies are particularly relevant to an individual's subjective experience of authenticity: the age of the sample and the setting of the behavior in the laboratory. Late adolescence could be the time of greatest identity exploration (Harter et al., 1996); thus, college students may be less certain of or less committed to certain trait levels than are older adults. As a result, consistency with those trait levels could be less important to authenticity. As adults grow older, they might become more certain of their identity, so authenticity might be increasingly predicted by trait level as people age. Second, the setting of a laboratory is inherently artificial. Although great efforts were taken to make the setting as naturalistic as possible (and the high levels of reported authenticity suggested that this may have been successful), it is possible that participants' sense of authenticity operates differently in daily life than in a laboratory environment.

Thus, Study 3 extends the previous studies in two ways. First, it tests the correlates of authenticity in adults ranging from age 18 to 51. Second, Study 3 employed experience-sampling methodology by having participants rate their behavior several times per day as they went about their everyday lives. In addition, a naturalistic study allowed us to increase the number of reports collected per participant.

Method

Participants—Participants were 62 college students, ages 18 to 51 ($M = 27.9$, $SD = 13.8$), some enrolled in a nontraditional program and others enrolled in a traditional program. Participants received extra credit points based on the number of reports they provided.

Procedure—Participants completed ratings of behavior and authenticity on Palm Pilots for 10 consecutive days, five times each day. These reports occurred at fixed times (9 a.m., 12 p.m., 3 p.m., 6 p.m., and 9 p.m.) each day. Participants produced 2,344 ratings of behavior for an average of 37.8 reports per participant (75.6%), which is similar to other ESM response rates.

Measures: Because this study also addressed research questions relevant to other studies, there was room to include items for three states only: Extraversion (quiet, bold, and energetic; $\alpha = .58$), Agreeableness (polite, warm, and unsympathetic; $\alpha = .59$), and Conscientiousness (disorganized, hardworking, and responsible; $\alpha = .36$). These reliabilities are lower than in previous studies—to investigate whether these reliabilities impacted the conclusions, we repeated the main analyses at the item level and reported those as well. Authenticity was assessed with one item: “How much did you feel like your true self during the previous hour?” Participants responded to all personality state items on a scale of 1 to 6. State affect was assessed with six positive (calm, energetic, happy, interested, joyful, pleased; $\alpha = .84$) and six negative (distressed, hostile, nervous, scared, sad, upset; $\alpha = .82$) mood items from the PANAS (Watson et al., 1988). The Big Five traits of Extraversion, Agreeableness, and Conscientiousness were measured using the Neuroticism-Extraversion-Openness Five-Factor Inventory (NEO-FFI; Costa & McCrae, 1985). Reliabilities for traits (each trait was assessed with 12 items) were as follows: for Extraversion, Cronbach's $\alpha = .73$; for Agreeableness, $\alpha = .79$; and for Conscientiousness, $\alpha = .81$.

Results and Discussion

Distributions of Personality States—Table 1 shows the average state level and variability for state authenticity and for each of the Big Five personality states. Because the state scale was 1 to 6 instead of 1 to 7 as it was in previous studies, the average level of each Big Five state and authenticity was expectedly lower. Otherwise, these analyses replicated the previous studies, suggesting that behavior in the laboratory was relatively similar to everyday behavior. In particular, the mean level of authenticity remained high ($M = 4.82$) but also showed variability within the typical individual across time, $SD = .92$.

The Trait-Consistency Hypothesis—Coefficients for the curvilinear terms were as follows: Extraversion, $b = .03, p < .05$; Agreeableness, $b = -.07, p < .01$; Conscientiousness, $b = .03, p = .13$. The positive curvilinear term for Extraversion shows the opposite pattern from that predicted by the trait-consistency hypothesis—it means that individuals felt more authentic the more they deviated from the central point. Although there was a significant negative curvilinear relationship for Agreeableness, the “peak” for the typical individual (Agreeableness = 8.88) was again outside the range of the 1–6 scale, indicating a steady increase in authenticity as Agreeableness increased.

Dispositional traits did not significantly interact with states in predicting authenticity. However, a significant positive main effect for dispositional levels of Conscientiousness on state authenticity was observed ($b = .46, p < .05$). Thus, the trait-consistency hypothesis was not supported in everyday life or for older adults.

The State-Content Significance Hypothesis—Table 2 shows that state authenticity was positively associated with all three personality states in the same direction as in previous studies. A simultaneous MLM predicting authenticity from all states simultaneously revealed significant linear relationships for all three states: Extraversion, $b = .15, p < .001$; Agreeableness, $b = .28, p < .001$; Conscientiousness, $b = .15, p < .001$. When positive and negative affect were also entered simultaneously with the personality states, state Agreeableness ($b = .13, p < .001$) and state Conscientiousness ($b = .13, p < .001$) maintained significant relationships to state authenticity, whereas state Extraversion ($b = .01, p = .48$) did not. Positive affect ($b = .45, p < .001$) and negative affect ($b = -.26, p < .001$) were both significantly related to state authenticity. Thus, as for younger adults and in the lab, certain behavior contents were associated in a linear fashion with authenticity.

Age as a Moderator—One main point of Study 3 was to determine whether similar results obtained in older adults, who have already established identities. To test this explicitly, we predicted authenticity from a state, age, and the age \times state interaction. In three different multilevel models, one for each personality state, neither the main effect of age nor the interaction effect was significant. Thus, the associations between state authenticity and personality states did not differ as a function of age.

STUDY 4: TESTING THE TWO HYPOTHESES IN THE DIRECT SELF-CONCEPT

Because Studies 1, 2, and 3 consistently showed the surprising finding that higher Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Intellect were associated with authenticity, despite strong intuitions to the contrary, Study 4 investigated what people report their authentic selves to be when asked directly. The two hypotheses make slightly different predictions for such direct questionnaire data than they do for the behavior data reported in the rest of the article. The trait-consistency hypothesis predicts that individuals will report their authentic self traits to be the same as their actual self traits, so

there should be positive correlations between authentic and actual selves. The state-content significance hypothesis predicts significant differences between the authentic level of a trait and the actual level of the same trait because this hypothesis predicts that the content of a specific end or location on a given trait produces authenticity. To be sure that the authentic selves are not only re-creating the actual selves, it must be shown that the pattern of authentic traits is significantly different from the pattern of actual traits. With this method, the two hypotheses are not necessarily mutually exclusive.

Method

Participants and Procedure—Participants were 101 undergraduates, ages 18 to 23, who enrolled as part of the larger study. Participants were recruited with flyers posted around the Wake Forest University campus and around Winston-Salem in general. Interested individuals responded to flyers and attended an information session describing the study. Participants provided one-time reports of personality characteristics at an information session.

Measures

Big Five: Participants completed a questionnaire containing standard forms of 62 adjectives commonly used to assess the Big Five traits (Goldberg, 1992). Ratings were made on scales from 1 to 7, with 7 being most descriptive (reliability for Extraversion, $\alpha = .86$; Agreeableness, $\alpha = .72$, Conscientiousness, $\alpha = .83$; Emotional Stability, $\alpha = .86$; Intellect, $\alpha = .78$).

Authentic self: Participants completed ratings of their “Authentic Self” with respect to the same adjectives used to measure dispositional Big Five traits, using the following instructions. “Think about the times that you feel like you are expressing your true self the most, when you feel that you are not affected or influenced by external forces. In other words, how are you acting when you feel like yourself? Please rate how well the following adjectives describe how you act when you feel like your true self.” These instructions were based on a “true self induction” designed to elicit ratings of “true self goals” (Kernis & Goldman, 2005b). Reliabilities were high for each “Authentic Self” trait: Extraversion, $\alpha = .85$; Agreeableness, $\alpha = .89$; Conscientiousness, $\alpha = .86$; Emotional Stability, $\alpha = .82$; Intellect, $\alpha = .81$.

Results and Discussion

The trait-consistency hypothesis predicts a positive correlation between an authentic trait and the corresponding actual trait. For Extraversion, the correlation between actual Extraversion and authentic Extraversion was $r = .68, p < .001$. Thus, there was a reasonably close correspondence between individuals’ Extraversion levels and their self-reported authentic Extraversion levels; introverts reported that introversion described the way they act when they are being true to themselves, and extraverts reported that extraversion described the way they act when they are being true to themselves. Correlations for the other traits were similar: Agreeableness, $r = .76, p < .001$; Conscientiousness, $r = .87, p < .001$; Emotional Stability, $r = .78, p < .001$; and Intellect, $r = .86, p < .001$.

The state-content significance hypothesis predicts significant differences between authentic and actual trait levels. Five within-subjects *t*-tests revealed significant differences for Extraversion, actual $M = 4.66$, authentic, $M = 4.90, t(96) = 4.06, p < .001$; for Emotional Stability, actual $M = 4.42$, authentic $M = 4.68, t(96) = 6.04, p < .001$; and for Intellect, actual $M = 4.86$, authentic $M = 4.97, t(96) = 3.08, p < .01$; but not for Agreeableness, $p = .25$, or Conscientiousness, $p = .72$. Thus, there was some support for the state-content significance hypothesis in directly assessed self-concepts.

These results demonstrate two important points. First, they show the willingness of individuals to endorse introverted, low agreeable, unconscientious, neurotic, and low intellectual traits as authentic if they also rated those traits as actual. This finding eases concerns that social desirability explained the findings in Studies 1, 2, and 3 because if social desirability were preventing participants from admitting authenticity when they were acting introverted, disagreeable, unconscientious, neurotic, or unintellectual for the moment, it seems that social desirability would have even more powerfully prevented participants from admitting authenticity with those traits when they were describing their personality in total.

Second, these results show the difference between retrospective, direct assessment of the authentic self and indirect, empirical assessment. When retrospectively and imaginatively, individuals believe that they feel authentic when they act similarly to their actual trait levels. However, when we examined what participants were actually acting like when they felt authentic, we discovered a very different picture. The indirect method in Studies 1, 2, and 3 that did not rely on individuals' perceptions of what makes them feel authentic consistently found that acting extraverted, agreeable, conscientious, emotionally stable, and intellectual was associated with feeling authentic.

GENERAL DISCUSSION

In these four studies, we examined behavior in the laboratory and in natural settings, with participants ranging in age from 18 to 51, employing various tools for assessing authenticity, Big Five behavior, and other personality characteristics. The purpose of these studies was to determine when people are able to achieve subjective authenticity, given that traits are often considered to be essential and core parts of personality and self, both in theoretical approaches and in subjective self-concepts (Bouchard, 2004; Costa & McCrae, 1992; Higgins et al., 1985), and given that people vary their behavior away from their traits so frequently.

The intuitive but previously untested hypothesis that individuals would achieve authenticity when acting in accordance with their traits was not supported. Of 13 tests of the curvilinear approach, there were only three significant negative curvilinear relationships between state authenticity and personality states, and those three were essentially linear as well. That is, the shape of all relationships was a positive and steady increase across the entire range of possible ways of acting (the three curvilinear parts had slopes that became less steep at higher levels of the state). Interactions between Big Five personality states and corresponding dispositional trait levels also did not predict authenticity in any of the 18 tests. For example, introverts were not "faking it" when they acted extraverted, and in fact felt more true to themselves when acting extraverted than they did when acting introverted, just as extraverts did. Thus, even though individuals retrospectively believed that they were most authentic when acting in line with their traits, as revealed in the questionnaire assessment in Study 4, they did not actually feel more authentic when acting in line with their traits.

The failure of the trait-consistency hypothesis was not because states were irrelevant to authenticity, not because within-person variability represented error or capricious responding, and not because states were superficial. Rather, the results were unequivocal in their support of the state-content significance hypothesis. Authenticity is achieved by expressing Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Intellect in one's behavior. Because this finding was counterintuitive, we believed it was important to establish the finding definitively. In all studies, personality states predicted

authenticity, even when controlling for the effects of all other personality states on authenticity, and even when controlling for positive and negative affect.

These results are partly consistent with Sheldon and colleagues' (1997) results and partly inconsistent. Based on Self-Determination Theory, Sheldon et al. (1997) argued that the traits of Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Intellect would be associated with authenticity because they support autonomy. Their results supported both the trait-consistency and the state-content significance hypotheses, whereas our results supported only the state-content significance hypothesis. However, in Study 4, using a questionnaire, we found the same results as they did. Their support for the trait-consistency hypothesis, and our support for it in Study 4, could be due to the use of retrospective questionnaires, which assessed beliefs more than actual experience, or to the use of the self-concept differentiation measure, which confounds mean levels with consistency. Experience-sampling studies assessed personality states in close proximity to when they occurred and also used a measure of consistency that is not confounded with mean levels. These studies revealed no support for the trait-consistency hypothesis but strong support for state-content significance.

Implications for the Self-Concept—The self-concept is the set of beliefs an individual has about him- or herself. Identifying and explaining the self-concept is an important goal of personality and social psychology. It is known that the self-concept is rich and complex, sometimes even including contradictory information.

Only Study 4 investigated the content of the self-concept directly, by asking participants what their true selves were. The results showed that individuals rate their true selves as very similar to their actual selves. The bulk of the present studies employed a nonobvious, indirect method to investigate the content of the self-concept, by assessing what individuals were doing during the moments when they believed they were acting in accordance with their true selves. What they were doing at those moments may therefore reveal the content of the self-concept. This indirect method has the advantage over direct methods of not relying on retrospective memories and of bypassing many memory biases and filters that would be operating while participants directly reported the content of the true self. In fact, Study 1 showed that the direct method gave different answers than did the indirect method. For example, when directly asked, introverts readily described their true self as introverted. However, the indirect method revealed that introverts did not feel true to themselves at the moments when they were acting introverted.

The findings suggest that the true-self-concept that was revealed through the indirect method was different from what is revealed through the traditional, direct method. It also revealed that the true-self-concept as revealed through the indirect method was different from what individuals intuited in our preliminary study; the indirectly revealed true-self-concept did not appear to consist of the individuals' typical or usual way of acting on trait dimensions, or of their trait levels. At least part of the true-self-concept appears to be similar across many or most individuals—Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Intellect.

Consistency with trait levels may not be important to individuals' sense of enacting their true selves. That is, even though individuals include traits as an important part of their self-concepts (Montemayor & Eisen, 1977), traits may not be seen as mandates to follow in order to be true to one's self, and individuals appear to accept variability in behavior as part of their self-concepts. In fact, several humanistic theories have proposed that the actual true self universally has content similar to Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Intellect (Maslow, 1968; Rogers, 1961; Schwartz, 1995). Such

theories predict that people will have the subjective experience of acting from their true selves when expressing those traits. Although the current findings are consistent with that prediction, this study addressed only the subjective experience of authenticity and did not address the nature of the actual true self.

Limitations and Future Directions—The use of self-report and adjectives to assess behavior and also to assess authenticity is a possible limitation to these studies. For example, to assess how extraverted participants' behavior was at a given moment, we had participants rate how talkative they were being, how bold they were being, and how assertive they were being on 1 to 7 scales. This is a departure from the traditional method of assessing behavior, which is by defining dichotomous categories of actions and counting their frequencies (e.g., Côté & Moskowitz, 1998; Wu & Clark, 2003). We believe both types of assessment are valuable. In these studies, the behavioral dimension approach was particularly advantageous because it was especially important to be able to compare behavior on the same scale as traits in order to straightforwardly evaluate the degree of agreement between the behavioral state and the trait.

Self-report also raises the concerns of common method variance and of a possible social desirability bias, such that individuals reported authenticity when they were feeling good or refused to admit authenticity when acting in less favorable ways. This is the main reason we controlled for positive affect, for negative affect, and for all states simultaneously. The resulting unique associations were associations over and above the effects of affect, and over and above the effects of other traits; they did not control for all possibilities of social desirability bias, but they controlled for much of it. Furthermore, individuals showed no reluctance to acknowledge introversion, low agreeableness, low conscientiousness, neuroticism, or low intellect as part of their true selves in Study 4, when asked directly. Thus, the experience-sampling results are not likely explainable by an unwillingness to acknowledge such characteristics. Future studies employing multiple methods of assessing behavior as it occurs (e.g., observer reports) may help in elucidating issues concerning method variance and social desirability.

Second, these studies were not able to determine causal direction. Similarly, these studies were not designed to determine what specifically within the content of each state predicts authenticity. A third limitation was that we assessed only subjective authenticity rather than any possible "true" or "objective" authenticity. Subjective authenticity predicts mental health (Harter, 2002; Kernis & Goldman, 2005b), and when it comes to authenticity, individuals' own judgments may have a special privilege. The relationship of these judgments to "true" or "objective" authenticity is an important question for future research.

Finally, because we could not feasibly assess all Big Five personality states in Study 3, we were not able to evaluate our hypotheses for Neuroticism or Intellect in natural settings with an adult sample. Therefore, our confidence in the generalizability of the findings supporting the state-content significance hypothesis for Neuroticism and Intellect is not as strong as for Extraversion, Agreeableness, and Conscientiousness.

Conclusion—Our goal was to determine the bearing of rapidly shifting behavior on the subjective achievement of authenticity. When we put the age-old trait-consistency hypothesis to the test, the result was surprisingly unresponsive: deviations from one's trait level did not reduce authenticity. Apparently, flexibility in behavior is typically genuine. In fact, flexible behavior sometimes was associated with enhanced authenticity: the data consistently supported the state-content significance hypothesis, such that increases in state Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Intellect were accompanied by increases in authenticity. Because authenticity predicts a variety of positive

psychological outcomes (Harter, 2002; Kernis, 2003; Kernis & Goldman, 2005a; Ryan & Deci, 2004; Sheldon et al., 1997), an implication of these findings is that it might be possible for individuals to improve their mental health by enacting these behavioral contents.

Acknowledgments

Preparation of this article was supported by National Institute of Mental Health Grant R01 MH70571. We would like to thank Terry Blumenthal, Mike Furr, Christian Miller, and Beth Pontari for comments on earlier drafts, and Jana Spain for suggesting the preliminary study.

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Table 1
Descriptive Statistics for Authenticity and the Big Five Personality States Across Studies

Study/Parameter	Authenticity	Extraversion	Agreeableness	Conscientiousness	Emotional Stability	Intellect
Study 1						
<i>M</i>	5.60	4.30	5.46	4.48	5.86	4.36
<i>SD</i>	0.92	0.98	0.64	0.72	0.68	0.92
Study 2						
<i>M</i>	5.59	4.37	4.98	4.19	5.35	4.52
<i>SD</i>	0.73	1.00	0.60	0.82	0.78	0.84
Study 3						
<i>M</i>	4.82	3.35	4.63	4.56	—	—
<i>SD</i>	0.92	1.18	0.92	0.79	—	—

Note. The values for *M*s can be read as mean level of the typical individual's level of state authenticity and the Big Five personality states across all activities. The values for *SD*s can be read as how much the typical person varied in each personality state. For Studies 1 and 2, personality states were measured on a 1 to 7 scale. For Study 3, personality states were measured on a 1 to 6 scale. *N*s vary across calculations.

Table 2

MLM Estimates of the Linear Relationships Between State Authenticity and Personality States When States Are Entered in Separate MLMs

	Extraversion	Agreeableness	Conscientiousness	Emotional Stability	Intellect
<u>Study 1</u>					
<i>B</i>	.56 ^{****}	.33 ^{****}	.27 ^{****}	.26 ^{***}	.44 ^{****}
<i>SD</i>	.34 ^{****}	.41 [*]	.28 [†]	.40 [*]	.20 [†]
<u>Study 2</u>					
<i>B</i>	.35 ^{****}	.46 ^{****}	.12 ^{**}	.32 ^{****}	.34 ^{****}
<i>SD</i>	.24 ^{****}	.44 ^{****}	.26 ^{****}	.32 ^{****}	.30 ^{****}
<u>Study 3</u>					
<i>B</i>	.17 ^{****}	.33 ^{****}	.25 ^{****}	—	—
<i>SD</i>	.13 ^{****}	.23 ^{****}	.23 ^{****}	—	—

Note. Results of separate multilevel models in which state authenticity was predicted from personality states. The values for *B* are the unstandardized betas predicting state authenticity from the personality state, for the typical individual. The values for *SD* indicate whether individuals differed reliably in their associations; significant standard deviations mean that the associations between personality states and authenticity vary across individuals.

[†] $p < .10$.

* $p < .05$.

** $p < .01$.

**** $p < .001$.