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## Journal of Research in Personality

journal homepage: [www.elsevier.com/locate/jrp](http://www.elsevier.com/locate/jrp)

## Properties of persons and situations related to overall and distinctive personality-behavior congruence

Ryne A. Sherman<sup>a,\*</sup>, Christopher S. Nave<sup>b</sup>, David C. Funder<sup>c</sup>

<sup>a</sup> Florida Atlantic University, United States

<sup>b</sup> Rutgers University, Camden, United States

<sup>c</sup> University of California, Riverside, United States

### ARTICLE INFO

#### Article history:

Available online 29 December 2011

#### Keywords:

Congruence  
Adjustment  
Situation strength  
Self-Determination Theory  
Normativeness  
Distinctiveness

### ABSTRACT

*Congruence* is the degree to which one's personality matches one's behavior in a particular situation. On four separate occasions over several weeks, 202 undergraduate participants described a situation they encountered the previous day and their behavior. Analyses considered overall congruence as well as distinctive congruence, adjusted for the match of personality and behavior to the normative personality and behavior profile. Overall congruence was strongly associated with better psychological adjustment; distinctive congruence was not. Similarly, situation strength and affordances for autonomy, relatedness to others, and competence were strongly linked to overall congruence, but only weakly associated with distinctive congruence. Behaving in accordance with one's true self is only related to positive psychological outcomes when it is accordance with normative standards.

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*This above all: to thine own self be true.*

(*Hamlet*, Act I, Scene 3)

### 1. Introduction

This final piece of advice from Polonius to his son Laertes implies that those who behave in ways that are true to themselves might fair better in life. From a psychological perspective, being “true to oneself” might be manifest by a close match between one's personality, on the one hand, and one's behavior, on the other. The degree to which the pattern of an individual's personality attributes matches the pattern of his or her behavior can be called *congruence*. When behaving congruently, characteristically friendly people act more friendly than hostile, characteristically talkative people talk more than they are silent, and characteristically withdrawn people pull back from more than engage in social interaction. But individuals are not always congruent in this way. People may act in ways that are unrelated to or even at variance with their characteristic personality attributes (Fleeson, 2001; Fleeson & Wilt, 2010). The purpose of the present article is to address the psychological factors associated with variation in personality-behavior congruence.

#### 1.1. Two components of congruence

Although Polonius' statement seems to imply that simply behaving in accordance with one's true self is a good thing, the matter of congruence is more complicated. For example, if Peter considers himself to be more talkative than he is hostile and in a given situation we observe that Peter acts more talkative than hostile, we might say that Peter displayed congruence between his personality and behavior in that situation. However, Peter's congruence may have two different sources (Furr, 2008; see also Cronbach, 1955). Given that people on average consider themselves to be more talkative than hostile and that on average people tend to act more talkative than hostile in most situations they encounter, there is a sense in which Peter's observed level of congruence in this hypothetical scenario is not much different from anyone else's. In other words, Peter's congruence in this situation might be highly *normative*. On the other hand, to the degree that Peter is a more talkative person than the average person as well as less hostile than the average person and in a given situation Peter talks more and acts less hostile than the average person, Peter's level of congruence speaks to something uniquely attributable to him. In other words, this aspect of Peter's congruence is *distinctive*.

Thus, while one's overall level of congruence reflects the degree to which one's pattern of personality traits matches his or her pattern of behavior in a given situation, it can be decomposed into normative congruence (i.e. the degree to which the individual's

\* Corresponding author.

E-mail address: [rsherm13@fau.edu](mailto:rsherm13@fau.edu) (R.A. Sherman).

personality is typical and its association with the degree to which his/her behavior is typical) and distinctive congruence (i.e. the degree to which the individual's personality is atypical and its association with the degree to which his/her behavior is atypical). These two components of congruence are not mere mathematical or statistical artifacts. Rather, they are psychologically disparate and there are reasons to suspect that these two components of congruence may be differentially related to psychological properties of persons and situations. For this reason, the present article will examine overall congruence and distinctive congruence separately.<sup>1</sup>

We will consider two potential moderators of congruence. First, some people may be more congruent than others. Past research suggests that individual differences in behavioral consistency and “judgability” may be associated with the degree to which people consistently express their personalities across the situations they encounter (e.g., Colvin, 1993; Sherman, Nave, & Funder, 2010). Second, some situations may promote congruence more than others (Fleeson, 2007). Situations with relatively strong forces may constrain individual differences in behavior and thereby inhibit personality-behavior congruence (Mischel, 1977; Snyder & Ickes, 1985) as opposed to weaker situations which provide less rigid guides for behavior and thus allow personality to more readily emerge. One theoretical perspective, Self-Determination Theory, suggests specifically that situations that promote autonomy, allow demonstration of competence, or meet one's needs for relatedness to others may allow greater self-expression, implying that that congruence would then emerge more easily (Deci & Ryan, 1987, 2000; Ryan & Deci, 2000).

### 1.2. Congruence and adjustment

As alluded to by Polonius, one property of persons that might be related to personality-behavior congruence is psychological adjustment. A number of theoretical arguments and empirical findings point to this possibility as well. Classically, Rogers (1959, 1961) emphasized that individuals move toward “becoming a person” only to the degree that they succeed in increasing the authentic connection between who they are and how they act, and avoid constructing facades aimed at gaining social approval. In a similar vein, Jourard (1963) suggested that “transparent” individuals with strong and healthy personalities are guided by consistent, internal core beliefs rather than driven by fluctuating, external situational demands.

Subsequent empirical research suggests these early theorists may have been onto something. Block (1961) asked participants to describe their interpersonal behavior across eight relationships, and then constructed an index of cross-relationship variability. Participants who manifested higher behavioral variability (which in Rogers' and Jourard's terms could be considered a sign of low authenticity) exhibited higher levels of maladjustment compared to those low on behavioral variability (high authenticity). More than 30 years later, a parallel study essentially replicated Block's findings (Donahue, Robins, Roberts, & John, 1993). More support for the relationship between psychological health and consistency includes a study that demonstrated that the degree to which a person is judgable—as indexed by self-peer agreement about personality, peer-peer agreement about personality, and the ability of peer reports of personality to predict behavior in an experimental context—is positively related to adjustment (Colvin, 1993). Another study showed that when people vary away from their general or characteristic style within a given role, they tend to feel

less content within that role (Roberts & Donahue, 1994). Further confirmation for the relationship between psychological adjustment and consistency came from studies in various samples using diverse measures of variability or inauthenticity (e.g., Diehl, Hastings, & Stanton, 2001; Diehl & Hay, 2007, 2010; Eaton & Funder, 2002; Erickson, Newman, & Pincus, 2009; McReynolds, Altrocchi, & House, 2000; Sheldon, Ryan, Rawsthorne, & Illardi, 1997; Suh, 2002). Finally, a recent study using the Riverside Situational Q-Sort found that while, as might be expected, people tend to be more consistent in their behavior across more similar situations, psychologically better-adjusted people tend to be more cross-situationally consistent than those with poorer adjustment, over and above the effect of situational similarity (Sherman et al., 2010).

While an impressive body of evidence suggests that congruent individuals are psychologically better adjusted, the findings have been questioned on both methodological and psychological grounds. Methodologically, the congruence-psychological adjustment relationship may to some degree be a statistical artifact (Baird, Le, & Lucas, 2006). Because variance constrains covariance, people who manifest greater variability across their trait scores have a higher probability of receiving a high consistency score (correlation). In a series of studies, Baird and colleagues demonstrated that when this potential artifact is statistically controlled, the relationship between psychological adjustment and consistency may be greatly reduced. However, at least two studies published since the critique by Baird and colleagues (2006), which adjusted for this possible artifact, still reported finding a negative association between psychological adjustment and cross-role variability (Clifton & Kuper, 2011; Diehl & Hay, 2010).

Yet another series of studies offers a different interpretation of the positive relationship between consistency or authenticity and psychological adjustment. Reports of subjective authenticity—defined “as the judgment that one's current actions express one's true self” (p. 1354)—were higher when participants acted more extraverted, agreeable, conscientious, emotionally stable, and intelligent regardless of their own unique patterns of personality traits (Fleeson & Wilt, 2010). That is, even people who on average reported lower levels of desirable traits such as emotional stability and extraversion reported feeling more like their true selves when they reported acting more emotionally stable and extraverted. These results suggest that previous research showing links between consistency and authenticity to psychological adjustment needs to be interpreted carefully in the light of the facts that (1) the average personality profile is *by definition* normative, and (2) that the normative profile is indeed a well-adjusted one (Letzring, 2008; Wood, Gosling, & Potter, 2007) – most people are more friendly than hostile, more satisfied than depressed, and so forth. It is possible, therefore, that Polonius' advice and early theoretical accounts (e.g. Jourard, 1963; Rogers, 1959, 1961) about the relationship between authenticity and psychological adjustment may have been slightly off the mark. Specifically, the relationship between authenticity and psychological adjustment may arise because, regardless of their true personalities, people feel most “authentic” when they manage to act in a normative and therefore a psychologically well-adjusted manner.

This possibility is supported by a recent study (Klimstra, Luyckx, Hale, Goossens, & Meeus, 2010) that provided perhaps the most direct evidence that the relationship between psychological adjustment and stability arises from normativeness. Using a longitudinal design over a four year period, this study found that normative stability (i.e. stability in correspondence with the average personality profile) was related to psychological adjustment but that distinctive stability (i.e. stability arising from deviations from the average profile) was not associated with psychological adjustment.

In the studies mentioned so far authenticity/consistency/stability is typically measured in one of two ways. Empirical assess-

<sup>1</sup> Only overall and distinctive congruence can be statistically analyzed in the current data, but the influence of normative congruence can be easily seen because overall congruence includes both normative and distinctive congruence.

ments of authenticity, such as Block's (1961) measure (see also Diehl & Hay, 2007, 2010; Diehl et al., 2001; Donahue et al., 1993), might have people rate how they behave in different domains, with different people in their lives, and whether their personality changes over time. These ratings are then used to create an index of variability (or in some cases consistency) across such domains, roles, or time periods and this index is used as an empirical quantification of inauthenticity (or authenticity in the case of consistency). When measured in this form, inauthenticity is then correlated with psychological adjustment and, as mentioned previously, typically a negative association is found (but see Baird et al. (2006) for a contrary finding). Alternatively, subjective assessments of authenticity, (e.g., Fleeson & Wilt, 2010) ask participants to report the degree to which they were feeling more or less authentic at a particular time during the day using online assessment devices (e.g. PDAs) while also making reports of their most recent behavior. In this format, people should report feeling most authentic when rating their behavior around the mean of all of their behavioral reports and less authentic when behaving above or below their mean (i.e. a curvilinear relationship). However, no evidence was found in support of a curvilinear relationship; this finding suggests that people feel most authentic when they behave in a normative and well-adjusted fashion (Fleeson & Wilt, 2010).

In sum, previous research which failed to separately analyze overall and distinctive components of congruence might have incorrectly inferred that distinctive congruence drives the association between congruence and psychological adjustment. Such an inference would imply that hostile persons feel most authentic when behaving in a hostile manner and further that hostile persons will show better signs of psychological adjustment to the degree to which they consistently behave in a hostile manner. This implication seems psychologically questionable and is at odds with recent findings that people feel most authentic when they behave in a normative and psychologically well-adjusted manner (Fleeson & Wilt, 2010) and that normative stability and not distinctive stability is associated with psychological adjustment (Klimstra et al., 2010).

### 1.3. Rigidity/flexibility and adjustment

A related issue concerns the rigidity versus flexibility of an individual's behavior. Given the previous research suggesting that consistency is related to psychological adjustment, one could reasonably wonder: can too much consistency be a bad thing? The psychological concepts of "rigidity" or "stubbornness" would seem to suggest that might be case. Expressing this question in terms of congruence, one might similarly ask if behaving too much in accordance with one's personality, while refusing to adapt to the situation, can be taken to excess. Perhaps a curvilinear relationship between psychological adjustment and congruence might be found, implying that persons with the very highest levels of congruence manifest psychological problems.

While it is easy to think of anecdotal examples of how being too consistent or rigid can lead to negative outcomes, the growing literature on behavioral consistency – perhaps surprisingly – has yet to provide empirical evidence in favor of this hypothesis as a generalization (Baird et al., 2006; Clifton & Kuper, 2011; Colvin, 1993; Diehl & Hay, 2007, 2010; Erickson et al., 2009; Moskowitz & Zuroff, 2004, 2005). Two studies by Moskowitz and Zuroff (2004, 2005) demonstrated that the degree to which one varies his or her behavior on a specific trait dimension, dubbed "spin," is positively related to Neuroticism, an indicator of negative affect and poor psychological adjustment. At the same time the degree to which one varies his or her behavior across trait dimensions, dubbed "flux," is negatively associated with Extraversion, which is an indicator of positive affect and is often associated with being psycho-

logically well-adjusted. While the above studies provide indirect evidence to the negative, the question of whether behaving too congruently is related to poor psychological adjustment remains to be directly addressed, and is an additional focus of the present research.

### 1.4. Properties of situations and congruence

What aspects of situations might make such congruence more and less likely? Prior theorizing suggests two answers. One is offered by the possibility that some situations are "stronger" than others, as postulated by the Strong Situation Hypothesis (Mischel, 1977; Snyder & Ickes, 1985). An early statement was offered by Mischel:

Psychological "situations" (stimuli, treatments) are powerful to the degree that they lead everyone to construe the particular events the same way, induce *uniform* expectancies regarding the most appropriate response pattern, provide adequate incentives for the performance of that response pattern and require skills that everyone has to the same extent. . . Conversely, situations are weak to the degree that they are not uniformly encoded, do not generate uniform expectancies concerning the desired behavior, do not offer sufficient incentives for its performance, or fail to provide the learning conditions required for successful genesis of the behavior (1977, p. 347, emphasis in original).

Later, Snyder and Ickes (1985) summarized:

In general, psychologically "strong" situations tend to be those that provide salient cues to guide behavior and have a fairly high degree of structure and definition. In contrast, psychologically "weak" situations tend to be those that do not offer salient cues to guide behavior and are relatively unstructured and ambiguous (p. 904).

Thus, the Strong Situation Hypothesis implies that persons should have more room to display congruence between personality and behavior in situations that are psychologically weak and less opportunity in situations that are psychologically strong. Consistent with this hypothesis, a recent meta-analytic review from organizational psychology concluded that situational strength moderates the relationship between trait conscientiousness and job performance such that in psychologically strong situations, the relationship between conscientiousness and job performance is reduced (Meyer, Dalal, & Bonaccio, 2009). While the Strong Situation Hypothesis seems reasonable and has some empirical support (see also Meyer, Dalal, & Hermida, 2010), it has received surprisingly few empirical tests, and one recent review even concluded that empirical evidence for the Strong Situation Hypothesis is utterly lacking (Cooper & Withey, 2009).

A second possible answer to the question of what kinds of situations promote personality-behavior congruence can be derived from Self-Determination Theory (SDT: Deci & Ryan, 1987, 2000; Ryan & Deci, 2000). SDT is a theory of personality and motivation that describes individual differences in people's orientations to the environment and tendencies to engage the world in a self-directed, subjectively fulfilling manner. It claims that situations and social roles vary in the degree to which they are conducive to authentic behavior, which in turn explains why people vary in the degree to which they feel authentic across situations and social roles (Ryan, 1995). SDT identifies three basic psychological needs—relatedness to others, competence, and autonomy—as the central components for healthy psychological development and a satisfying life. Moreover, SDT predicts that when a person encounters a situation that meets these psychological needs, the person's behavior will be reflective of his or her true self. Specifically, one might



expect that personality-behavior congruence might be greater in situations that promote autonomy, relatedness to others, and competence (e.g. Ryan, Bernstein, & Brown, 2010).

### 1.5. Study overview

To examine the relationships between psychological adjustment and situational factors on both overall and distinctive congruence, the present study employed a short-term longitudinal design in which participants completed measurements on five different sessions over 5 weeks. During the first session participants completed a battery of personality and adjustment measures described in the Measures section. During the subsequent four sessions, participants described the psychological properties of a situation they had experienced at an experimenter-specified time within the previous 24 h as well as their behavior in that situation.<sup>2</sup> These procedures and the previously reviewed literature led to the following set of hypotheses.

### 1.6. Hypotheses

**Hypothesis 1.** *On average, people should display overall congruence as well as distinctive congruence.* This hypothesis predicts that the pattern of a person's personality traits should be associated with his or her pattern of behavior in the situations he or she encounters in daily life. The slow and steady (or steady but slow) resolution of the classic "person-situation debate" (Fleeson & Nofhle, 2009; Funder, 2009; Kenrick & Funder, 1988) makes this hypothesis less controversial than it would have been at one time. Further, given that overall congruence between personality and behavior includes a normative component, it seems very probable that people will display high overall levels of congruence. However, establishing the general phenomenon of personality-behavior congruence using the present measurement tools and utilizing a person-centered approach is a necessary first step towards examination of the other hypotheses.

This hypothesis further predicts that the pattern of a person's distinctive personality traits (i.e. non-normative) should be associated with the patterning of his or her distinctive behavior in the situations he or she encounters in daily life. However, because distinctive congruence statistically removes normative levels of congruence, it is almost definitionally true that distinctive levels of congruence will be lower than overall levels.

**Hypothesis 2.** *Overall congruence will be positively associated with psychological adjustment, but distinctive congruence will have less or no association with psychological adjustment.* The first portion of this hypothesis stems from classic theorizing by Rogers and Jourard, along with a host of empirical findings indicating that behavioral consistency is associated with adjustment. However, the prediction that distinctive congruence will be less associated with psychological adjustment stems from more recent research (Baird et al., 2006; Klimstra et al., 2010; Fleeson & Wilt, 2010) suggesting that the previously identified associations between psychological adjustment and consistency/authenticity were due to the fact that the normative personality profile is well-adjusted (Letzring, 2008; Wood et al., 2007).

**Hypothesis 3.** *Overall congruence will be lower in strong situations than in weak ones.* This hypothesis is based on the idea that strong situations are tightly scripted and allow for low behavioral varia-

tion and thus likely constrain individuals from being able to behave in accordance with their personality (Mischel, 1977; Snyder & Ickes, 1985). Because theoretical accounts of situation strength make no specific claims and because there is no empirical data speaking to the possible relationship between distinctive congruence and situation strength, we consider our examination of the relationship between situation strength and distinctive congruence to be exploratory.

**Hypothesis 4.** *Overall congruence will be higher in situations that support autonomy, relatedness to others, and competence.* This hypothesis is based on the theoretical underpinnings of Self-Determination Theory (SDT) which suggests that people should feel and act more like themselves in situations that promote feelings of autonomy, competence, and relatedness to others. However, because these theoretical accounts of SDT make no specific claims about the possible relationships with distinctive congruence, we consider our examination of this relationship exploratory.

## 2. Method

### 2.1. Participants

Two-hundred twenty-one undergraduate participants from the University of California, Riverside were solicited via fliers on campus and an online psychology department participant recruiting system. Data collection began in the fall of 2007 and concluded in the spring of 2009. Because the estimation of personality-behavior congruence requires participants with complete measures of both personality and behavior, only participants who completed at least two sessions—personality measures at session 1 and one other session—could be included. Twelve of the 221 participants did not complete a second session and are thus not included. Additionally, 3 participants completed the study twice; data from their second participation was dropped. Finally, 1 participant's data was dropped due to suspicion of random reporting. This left a sample of 205 participants eligible for analyses. Among these, 2 participants completed only two sessions and a computer error caused another participant's behavioral data for a situational session to be lost leaving a final sample of  $N = 205$ ,  $N = 203$ ,  $N = 202$ , and  $N = 203$  for each of the four sessions respectively. Missing responses to some of the survey data lead the  $N$  for some specific analyses to be slightly lower. Because of the multi-ethnic nature of the UC Riverside student body, the participants are quite diverse. The composition of the final sample of 205 participants was 38% Asian, 27% Hispanic/Latino/a, 13% Other, 13% Caucasian, 8% African American, and 1% No response. Participants were compensated \$12.50 per hour for a maximum total of \$75 if they completed all sessions.

### 2.2. Procedure

Participants came to the lab for a total of five sessions over the course of 5 weeks. Sessions were at least 48 h apart, but in most cases the interval was longer. At the first session participants received information about the study, provided informed consent, and completed a demographic questionnaire along with several measures of personality and adjustment (see Section 2.3). At each of the subsequent four sessions participants were asked to describe a situation they had experienced the day before at one of four pre-specified times (10 am, 2 pm, 5 pm, or 9 pm) by writing on a  $3 \times 5$  in. ( $7.6 \times 12.7$  mm) index card. Because each participant completed four sessions and four times were used, the time  $\times$  session effects were completely confounded within participants. To counteract this, a modified Latin-square design was used such that approximately 1/4th of the participants completed the study using

<sup>2</sup> Data from this study come from a larger project that has yielded one previous publication (Sherman et al., 2010), but the analyses presented here are unique.

each of the following time sequences across the four measurement occasions: 10 am–2 pm–5 pm–9 pm; 2 pm–5 pm–9 pm–10 am; 5 pm–9 pm–10 am–2 pm; 9 pm–10 am–2 pm–5 pm.

Participants were instructed to specify only one situation. For example, if the participant indicated that at 2 pm she was playing softball and then going to dinner with friends, we asked her to revise to specify only one of these. In addition, participants were instructed that if they were sleeping at the indicated time they should write down what they were doing right before they went to sleep or right after they woke up. Participants were next asked to describe the psychological characteristics of that situation with the Riverside Situational Q-Sort Version 2.0 (RSQ; Sherman et al., 2010; Wagerman & Funder, 2009) using a computer based Q-sorter program developed in our lab.<sup>3</sup> Participants were then asked to describe how they behaved in that situation using the Riverside Behavioral Q-Sort Version 3.0 (RBQ; Funder, Furr, & Colvin, 2000; Furr, Wagerman, & Funder, 2010), also using the computer based Q-sorter program. Prior research has demonstrated that such retrospective reports of behavior, provided less than 24 h after it occurred, can have a high degree of validity (Green, Rafaeli, Bolger, Shrout, & Reis, 2006).

### 2.3. Measures

#### 2.3.1. Personality

**2.3.1.1. California Adult Q-Sort.** The California Adult Q-Sort (CAQ; Block, 1978; as modified for use by non-professionals by Bem & Funder, 1978) comprises 100 diverse personality characteristics (e.g., “Is genuinely dependable and responsible”; “Has a wide range of interests”). The CAQ was developed over the course of many years by Jack Block and his colleagues and has been employed in a great number of studies as it provides a rich and relatively comprehensive description of personality. Using the Q-sorting computer program, each participant assessed his or her own personality using the modified CAQ by placing each of the items into one of nine categories (1 = *extremely uncharacteristic*, 9 = *extremely characteristic*) forming a forced choice, quasi-normal distribution. The CAQ is well-suited for estimating the congruence between one’s personality and one’s behavior in a person-centered approach because it measures a wide variety of personality characteristics and because it prevents certain biases which may be introduced by Likert type rating measures (e.g. Acquiescence, Response Set).

#### 2.3.2. Adjustment measures

**2.3.2.1. Subjective Happiness Scale.** The Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999) is a 4-item global assessment of happiness. Participants rated each item on a 7 point Likert-type scale (e.g. Item 1 – “In general I consider myself: 1 = *Not a very happy person* to 7 = *A very happy person*) using a computerized testing procedure. A subjective happiness score was computed by averaging these four items, with the fourth item being reverse scored. The mean score for this sample was 5.29 ( $SD = 1.10$ ) and the coefficient  $\alpha$  was .80.

**2.3.2.2. Beck Depression Inventory.** The Beck Depression Inventory II (BDI-II; Beck, Steer, & Brown, 1996) is a 21-item self-report scale that updates a widely-used instrument for measuring the severity of depression (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). Participants rated each item using a 4-point scale ranging from 0 to 3 (e.g. Sadness: “I do not feel sad” (0), “I feel sad much

of the time” (1), “I am sad all the time” (2), or “I am so sad or unhappy that I can’t stand it” (3)) using a computerized testing procedure. BDI scores were calculated by summing the ratings on all 21 items. The average BDI score in this sample was 9.15 ( $SD = 7.10$ ), scores ranged from 0 to 36, and the full scale coefficient  $\alpha$  was .84.

**2.3.2.3. Psychological Well-Being.** The Psychological Well-Being questionnaire (PWB; Ryff, 1989a, 1989b) includes 84-items that assess well-being along six positively correlated dimensions—Autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance—as well as one overall factor of PWB. Participants rated each item on a six point Likert-type scale (1 = *strongly disagree*, 6 = *strongly agree*) using a computerized testing procedure. Mean scores on the six dimensions were combined and averaged into an overall PWB measure ( $\alpha = .89$ ) for each participant with higher scores reflecting higher PWB ( $M = 4.46$ ,  $SD = .62$ ).

**2.3.2.4. Ego-Resiliency.** The Ego-Resiliency Scale (ER; Block & Kremen, 1996; see also Letzring, Block, & Funder, 2005) consists of 14 items that assess the degree to which a person can adjust one’s level of ego-control—or impulse control—according to contextual demands and has been theoretically linked to psychological adjustment (Block & Kremen, 1996) such that persons high on ego-resiliency adapt more effectively to the affordances and constraints of their social world. Participants rated each item on a 1 (*disagree very strong*) to 4 (*agree very strongly*) scale using a computerized testing procedure. A composite ego-resilience score was computed for each participant ( $\alpha = .68$ ) and the average composite ego-resilience score was 3.12 ( $SD = .32$ ) for this sample.

**2.3.2.5. Neuroticism.** The Neuroticism scale of the Big Five Inventory (BFI; John & Srivastava, 1999) consists of eight items that assess the global personality trait of Neuroticism, which is characterized by emotional instability and negative emotionality. Participants rated each item on a five point Likert-type scale (1 = *strongly disagree*, 5 = *strongly agree*) using a computerized testing procedure. After reversing scoring where appropriate, a composite neuroticism score was computed for each participant ( $\alpha = .80$ ) which averaged 2.76 ( $SD = .67$ ) for this sample.

**2.3.2.6. Composite adjustment score.** Previous research has demonstrated that for at least two of these five aforementioned measures of adjustment, the empirical correlates are quite similar (Nave, Sherman, & Funder, 2008). Moreover, preliminary analyses indicated that these five measures were highly inter-correlated and that their relationships to personality-behavior congruence were similar. Therefore, they were combined into a single composite measure of overall psychological adjustment by standardizing each measure and averaging across them.<sup>4</sup> This composite adjustment score had a mean of .00 ( $SD = .75$ ) and demonstrated good internal consistency (average correlation amongst the five scales  $r = .46$ ,  $\alpha = .81$ ).

#### 2.3.3. Situational properties

**2.3.3.1. Riverside Situational Q-Sort.** The Riverside Situational Q-Sort Version 2.0 (RSQ; Sherman et al., 2010; Wagerman & Funder, 2009), comprises 81 diverse characteristics of situations (e.g., “Talking is permitted, invited, or conventionally expected”; “Context is potentially anxiety-inducing”). During four separate lab sessions, each participant assessed the situation he or she reported

<sup>3</sup> See <http://rap.ucr.edu/qsorter/> for more information about this program and a free, downloadable copy. This website also includes complete lists of the CAQ, RSQ, and RBQ items used in the present study, along with more recent versions of the RSQ as they are developed.

<sup>4</sup> A composite was only formed for participants who had completed at least 4 out of the 5 adjustment measures.

being in at a specified time the day before by placing each item into one of nine categories (1 = *extremely uncharacteristic*, 9 = *extremely characteristic*) according to a forced choice, quasi-normal distribution, using the Q-sorting computer program. The number of items placed in each category was 3, 6, 10, 14, 15, 14, 10, 6, and 3 for categories 1–9 respectively. Thus, as is characteristic of the Q-Sort method, participants must decide which few items are the most and least characteristic of the situation while leaving the majority of less relevant, or even irrelevant, items to the middle categories.

The decision to gather self-reports of situations and their characteristics that had been experienced on the previous day was made with several tradeoffs in mind. First, a major goal of this project was to gather rich descriptive reports of a wide variety of real world situations (Funder, 2007). This goal was in part motivated by previous arguments that “research in this area [should] be based, as far as possible, on data from *real-life situations*” (Magnusson, 1981, p. 27, emphasis in original). In addition, because we desired rich (i.e. extensive) reports of the characteristics of situations participants experienced we employed the 81-item RSQ, which takes approximately 30 min to complete. To avoid potential distractions of completing such a lengthy measure either in real time (e.g. with an electronic PDA device) or at the end of the day in a location of the participant’s choosing, participants completed the measure in the lab.

### 2.3.4. Behaviors

**2.3.4.1. Riverside Behavioral Q-Sort.** The Riverside Behavioral Q-Sort Version 3.0 (RBQ; Funder et al., 2000; Furr et al., 2010), is a 67-item assessment tool designed to describe characteristics of a person’s observable behavior. Items include “appears relaxed and comfortable,” “is expressive in face, voice and gestures,” and “tries to control the situation.” During each return session in the lab, and after completing the RSQ, each participant assessed his or her own behavior in the situation at an experimenter-specified time the previous day. This was done, using the Q-sorting computer program, by placing each of the 67 items into one of nine categories (1 = *extremely uncharacteristic*, 9 = *extremely characteristic*) forming a forced choice, quasi-normal distribution. While data derived from direct observations of behavior is generally preferable (Furr, 2009), the impracticality of gathering multiple observer reports of 67 behaviors from multiple time points in a participant’s daily life necessitated the use of self-reports in this study.

The RBQ provides a rich and detailed description of behavior but requires approximately 30 min to complete (in addition to the 30 min to complete the RSQ). Thus, as with the RSQ, we accepted the tradeoff entailed in relying on laboratory-gathered self-reports to ensure that the behaviors reported were rich descriptions from participants’ daily lives and to reduce the potential of compromising the validity of the measures caused by the distractions of taking a lengthy survey at home. It should be noted that each of these specific self-reports of situational properties and behavior were provided less than 24 h after their occurrence, and that four such reports were obtained from each participant, one for each of four situations experienced and reported separately over a period of several weeks.

## 3. Results

### 3.1. Situations: overview

A prior publication using this data set included a detailed description of the situations participants reported experiencing (see Sherman et al., 2010, Table 1). Briefly, they included a wide range of typical settings of normal undergraduate student life, such as “playing games at a friend’s apartment,” “taking a midterm” and

“making dinner for me and my boyfriend.” An exploratory inverse factor analysis using an oblique rotation identified seven clusters (or types): I – Social Situations (roughly making up 36% of all situations), II – School Work in Class with Others (19%), III – School Work at Home or Alone (14%), IV – Recreating (13%), V – Getting Ready for Something (11%), VI – Work (4%), and VII – Unpleasant Situations (3%). While these results illustrate the diversity of situations participants in our sample experienced, it would be highly premature to regard them as a comprehensive or general model for the structure of situations (Sherman et al., 2010) and for that reason they are not considered further.

### 3.2. Quantifying personality-behavior congruence

Before hypothesis-testing could begin, it was first necessary to quantify the degree to which each participant displayed personality-behavior congruence in each situation. This requires that participants be measured on a relatively large number of both personality characteristics and behaviors directly related to those personality characteristics. Because the RBQ was originally devised to measure behaviors relevant to personality items on the CAQ (see Funder et al., 2000), 42 of the 67 RBQ behaviors have direct CAQ personality item analogues.<sup>5</sup> For example, one CAQ item reads “Is a talkative individual” and its RBQ analogue reads “Is talkative [as observed in this situation]” (see Appendix for complete list of analogues). Thus, for each of the four situations a personality-behavior congruence index can be computed by correlating the scores of the 42 CAQ personality item analogues with the 42 RBQ behavior item analogues.<sup>6</sup> This profile correlation, computed separately for each participant in each situation, represents the degree to which that participant’s behavior was overall congruent with his or her personality. The histograms of these overall congruence scores for each session are displayed in Fig. 1. The means and standard deviations are displayed on the upper half of Table 1.

It should be noted that each participant reported a unique set of four situations across the four visits to the lab; thus the four sessions in Fig. 1 and Table 1 differ only according to the session at which they were reported. They are reported separately for the sake of completeness and to demonstrate the degree to which the overall results remain stable across four quasi-independent replications (i.e., while the sample of participants in each was the same, the situations were different). Across all participants in all situations, the three situations in which participant’s displayed the highest levels of personality-behavior congruence were, “I was looking at what credits cards I have to pay and what dates along with my boyfriend” ( $r = .82$ ), “At about 2 pm, I had just woken up from a long night of sleeping. I chose to use my laptop to use the internet for the next few hours” ( $r = .81$ ), and “Yesterday at 5 pm I was at Circuit City with my boyfriend buying a camera” ( $r = .81$ ). The three situations in which participants displayed the lowest levels of congruence were, “Walking to Scott’s [a campus market] to get a Turkey club sandwich my room mates had went and left me behind” ( $r = -.49$ ), “I was trying to finish up and English project at the last min. I have been procrastinating for months, I thought was one of the pretty worst and stressful days of my life” ( $r = -.36$ ), and “Playing soccer with my fraternity brothers, sisters, and the pledges” ( $r = -.34$ ).

**Hypothesis 1.** *On average, people should display overall congruence as well as distinctive congruence.*

<sup>5</sup> Of these 42 CAQ-RBQ item pairs 41 were previously used to estimate the degree to which acquaintance and stranger CAQ ratings predicted behavior in an experimental context (see Colvin & Funder, 1991).

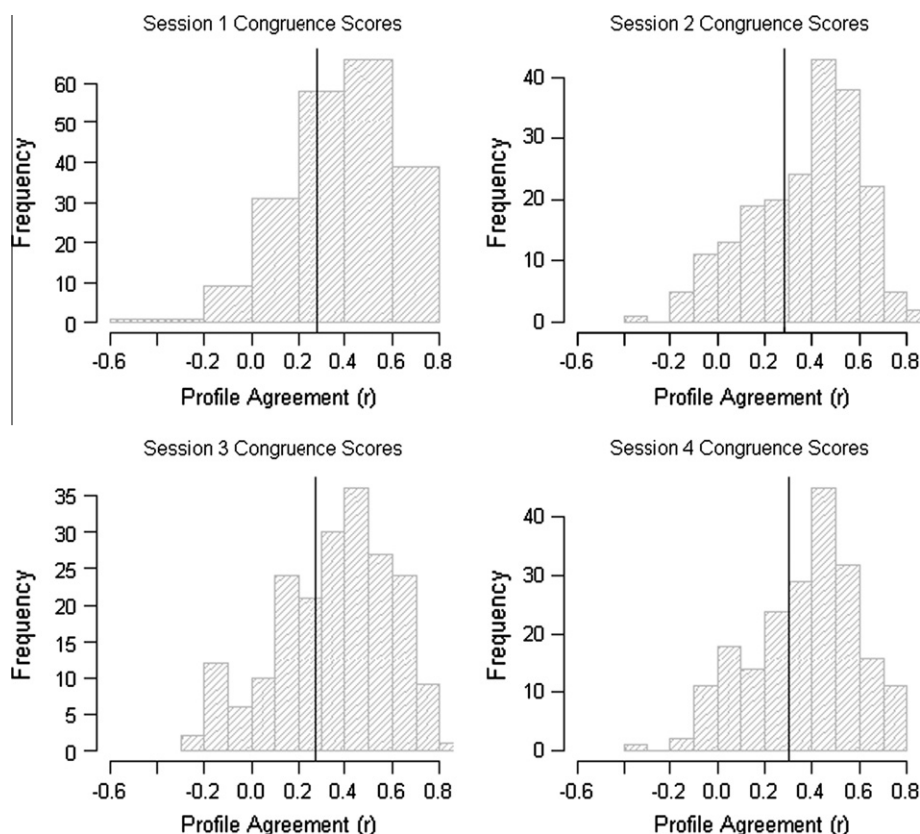
<sup>6</sup> Two CAQ personality items, numbers 14 and 88, were reverse scored to match the direction of their behavioral RBQ item analogues.



**Table 1**  
One-sample *t*-tests for average overall congruence and distinct congruence.

	Avg. overall congruence	Baseline	<i>t</i>	<i>df</i>	<i>p</i>	<i>R</i> <sub>effect size</sub>
Session 1	.40 (.27)	.28	6.98	204	$1.969 \times 10^{-11}$	.44
Session 2	.39 (.27)	.28	6.35	202	$6.909 \times 10^{-10}$	.41
Session 3	.37 (.28)	.28	5.25	201	$1.913 \times 10^{-7}$	.35
Session 4	.39 (.26)	.30	5.39	202	$9.639 \times 10^{-8}$	.35
	Avg. dist. congruence					
Session 1	.16 (.20)	.00	11.78	203	$<2.2 \times 10^{-16}$	.64
Session 2	.14 (.19)	.00	10.49	201	$<2.2 \times 10^{-16}$	.59
Session 3	.12 (.18)	.00	9.00	200	$<2.2 \times 10^{-16}$	.54
Session 4	.12 (.18)	.00	9.83	201	$<2.2 \times 10^{-16}$	.57

Note: Standard deviations in parentheses. *p*-values are one-tailed.



**Fig. 1.** Histograms of personality-behavior congruence scores within situations reported at each of four measurement sessions. At each session, participants reported on a situation they had encountered at a specified time within the past 24 h, and their behavior in it. The vertical line indicates baseline level of personality-behavior congruence obtained by chance (approximately  $r = .30$ ).

While the histograms in Fig. 1 clearly show the average amount of overall congruence at each measurement occasion was considerably greater than  $r = .00$ , it is possible that the levels of overall congruence displayed merely reflect the fact that people, on average, are higher on some traits than others and have a tendency to display some behaviors, on average, more than others. For this reason, the correlation between any two randomly-selected personality and behavioral profiles could be expected to be greater than zero. This problem is similar to the problem of *stereotype accuracy* (Cronbach, 1955; Funder, 1980), or *normativeness* (Furr, 2008), in the personality judgment literature. To account for this problem, two methods were employed. In the first method, based on Furr's "sample-level strategy" (p. 1273), we estimated the baseline level of overall personality-behavior congruence by calculating the similarity of each personality profile to the behavior profile for each non-paired participant. That is, we correlated person 001's person-

ality profile with person 002's behavior profile and so on for each non-matching personality-behavior pair. This was done separately for each of the four situational reporting sessions yielding an average baseline personality-behavior correlation of about .30 (see Fig. 1). One-sample *t*-tests comparing the obtained congruence scores to this baseline confirmed that the average personality-behavior correlation, which was slightly less than .40, was significantly greater than this baseline in every case (all *ps* < .001). The full results of these analyses are displayed in the upper portion of Table 1.

We also addressed this normative problem by computing a second type of congruence based on Furr's (2008) "pair-level strategy" (p. 1275). This method removes the normative level of congruence from the overall level of congruence leaving only distinctive congruence remaining. First, we calculated the normative personality profile by computing the sample level means for the 42 CAQ items



and the normative behavior profile by computing the sample level means for the 42 RBQ items (across all four situations). These two normative profiles were highly correlated,  $r = .83$ , suggesting that the average person is highly congruent with the average behavior. Next, each person's 42 item CAQ profile was regressed onto the normative CAQ profile and the residuals were retained. These residuals represent the degree to which the person was different from the normative profile, or each person's distinctive pattern of personality traits. Similarly, each person's 42 item RBQ profile was regressed onto the normative RBQ profile and the residuals were retained to represent the degree to which the person's behavior in that specific situation was different from the normative behavioral profile, or each person's distinctive pattern of behavior. Lastly, each person's distinctive personality profile was correlated with each person's distinctive behavioral profile in each situation to create a *distinctive congruence* score for each person in each situation representing the degree to which the person's non-normative personality traits corresponding to the person's non-normative behavior in a given situation. Of note, these distinctive congruence scores correlated  $r = .61$  (meta-analytically combined across measurement occasions) with overall congruence scores.

These distinctive congruence scores were then subjected to one-sample  $t$ -tests against a baseline of  $r = .00$  this time because normativeness was already statistically controlled. These tests confirmed that on average people are distinctly congruent with  $p$ s less than  $2.2 \times 10^{-16}$  for all four measurement occasions. The full results of analyses are displayed in the lower portion of Table 1. Thus, both of these methods for dealing with the normativeness issue support Hypothesis 1 that on average people display overall congruence, as well as distinct congruence, in their daily lives.

**Hypothesis 2.** *Overall congruence will be positively associated with psychological adjustment, but distinctive congruence will have less or no association with psychological adjustment.*

Despite a general tendency for people to display both overall and distinct congruence, and the fact that these two kinds of congruence are related, both the histograms in Fig. 1 and the standard deviations in Table 1 indicate sizeable individual differences. Hypothesis 2 is that individual differences in overall congruence will be associated with psychological adjustment while individual differences in distinctive congruence will be less associated with psychological adjustment, if at all. To test these hypotheses, we employed hierarchical linear modeling (using R's nlme package; Pinheiro & Bates, 2000) because, as noted previously, each participant's congruence was measured at four different time points. Following Raudenbush and Bryk (2002), these measurements yielded a data set where 204 participants served as level-2 units and were measured on a total of 816 occasions, which served as level-1 units.<sup>7</sup> The estimation of an unconditional cell means model for overall congruence yielded an intra-class correlation (ICC1) of .42 and average within person reliability (ICC2) of .75. The estimation of an unconditional means model for distinct congruence yielded an intra-class correlation (ICC1) of .27 and average within person reliability (ICC2) of .59. These results indicated that individuals reliably differed from one another in their average levels of overall con-

<sup>7</sup> It is important to note that all analyses reported here and subsequently in the present article were performed twice: once using the overall congruence and distinctive congruence scores as described, and a second time using adjusted overall congruence and adjusted distinctive congruence scores that statistically control for each individual's variability in CAQ item responses, following Baird et al. (2006). These adjusted overall congruence scores correlated  $r = .96$  with the unadjusted overall congruence scores and the adjusted distinctive congruence scores correlated  $r = .99$  with the unadjusted distinctive congruence scores. However, as a precautionary measure we only report the results using the adjusted overall and adjusted distinctive congruence scores here, even though the unadjusted scores provide very similar results.

gruence and in their average levels of distinct congruence across the four measurement occasions and that a multilevel modeling approach is warranted.<sup>8</sup>

To determine whether individual differences in average levels of overall congruence were related to psychological adjustment, the psychological adjustment composite was entered into the model as a level-2 predictor of overall congruence.<sup>9</sup> The standardized beta for adjustment predicting overall congruence was  $\beta = .31$  ( $SE = .05$ ), which was statistically significant,  $t(198) = 6.08$ ,  $p < .0001$ . To test the possible alternative hypothesis that overall congruence has a curvilinear relationship with adjustment such that both persons with extremely low and extremely high levels of overall congruence are less well-adjusted, the mean congruence score for each participant across his or her four situations was computed. After standardizing adjustment and these mean congruence scores (across participants) a regression model using both linear and quadratic overall congruence terms to predict adjustment was estimated. This model showed no indication of a quadratic relationship between overall congruence and adjustment ( $\beta = .03$ ,  $t(197) = .591$ ,  $p = .555$ ).

To determine whether individual differences in average levels of distinct congruence were related to psychological adjustment, the psychological adjustment composite was entered into a multi-level model as a level-2 predictor of distinct congruence. The standardized beta predicting distinct congruence was  $\beta = .08$  ( $SE = .05$ ),  $t(198) = 1.56$ ,  $p = .1191$ . To test the possible alternative hypothesis that distinct congruence has a curvilinear relationship with adjustment such that both persons with extremely low and extremely high levels of congruence are less well-adjusted, a regression model using both linear and quadratic distinct congruence terms to predict adjustment, after compositing and standardizing as mentioned in the previous paragraph, was estimated. This model showed no indication of a quadratic relationship  $\beta = .01$ ,  $t(197) = .198$ ,  $p = .843$ ). These results indicate that overall levels of congruence between personality and behavior have a strong and reliable linear relationship with psychological adjustment. However, the relationship between distinct levels of congruence and psychological adjustment appears substantially weaker. These results imply, as suggested in the introduction, that one explanation for the frequently identified positive relationship between acting in accordance with one's true self and psychological adjustment is that the normative personality profile is a healthy one. To examine this possibility we correlated each person's overall personality profile with the normative personality profile and retained the  $r$ s as indicators of the degree to which each person is normative. Next, we correlated these normative personality indicators with the aforementioned psychological adjustment composite. As anticipated, the degree to which a person's personality matched the normative personality profile was strongly and positively related to the degree to which one was psychologically well-adjusted ( $r = .61$ , 95% CI [.51, .69],  $t(198) = 10.81$ ,  $p < 2.2 \times 10^{-16}$ ).

**Hypothesis 3.** *Overall congruence will be lower in strong situations than in weak ones.*

To test the Strong Situation Hypothesis (Mischel, 1977; Snyder & Ickes, 1985) it was first necessary to quantify the degree to which each situation experienced by the participants was characterized

<sup>8</sup> In addition to the analyses presented here, preliminary analyses revealed that participant gender, participant ethnicity (Asian versus non-Asian), measurement occasion, and situation time of day (10 am, 2 pm, 5 pm, 9 pm) had no relation to either congruence type or any of the predictor variables.

<sup>9</sup> For all multilevel model analyses reported, all variables were first "grand" standardized at the level of the measure such that individual scores reflect differences from the average score on that variable divided by the standard deviation of that variable across all persons and all measurement occasions if the variable was measured on more than one occasion.

by the properties that the hypothesis outlines. To do so we employed a template matching approach (Bem & Funder, 1978). Two independent raters familiar with the Strong Situation Hypothesis rated the prototypical strong situation using the RSQ-sort rating procedure outlined previously. These two ratings were averaged to form a template.<sup>10</sup> The three RSQ items with the highest composite rating for the strong situation template were, "Context includes explicit or implicit demands on P[erson]," "Situation includes implicit or explicit behavioral limits," and "P[erson] is being pressured to conform to the actions of others." The three RSQ items with the lowest composite rating were, "Affords an opportunity to express unusual ideas or points of view," "Situation is uncertain or complex," "Affords the opportunity to ruminate, daydream or fantasize." This complete composite template was correlated with each participant's description of each situation to create a template match score reflecting the degree to which it could be considered a strong situation.

These template match scores ( $M = .01$ ,  $SD = .16$ ) were then entered into a multi-level analysis as a level-1 predictor of overall congruence. The resulting standardized beta was  $\beta = -.28$  ( $SE = .04$ ) which was statistically significant,  $t(604) = -7.44$ ,  $p < .0001$ . In addition, these situation strength template match scores were entered into a multi-level analysis as a level-1 predictor of distinct congruence. The resulting standardized beta was  $\beta = -.04$  ( $SE = .04$ ) which was not statistically significant,  $t(604) = -1.13$ ,  $p = .2605$ . These results support the hypothesis that people display less overall congruence in psychologically strong situations. However, there was no reliable relationship between the distinct congruence and situation strength. These results imply that while psychologically weak situations do not necessarily allow people to behave in ways that are distinctly congruent, they do allow them to behave in normative ways. To examine this possibility we correlated each person's overall behavioral profile in each situation with the normative behavioral profile and retained the  $r$ s as indicators of the degree to which each person behaved in a normative fashion in each situation. Next, we used multilevel modeling to predict the situation strength template match scores from the normative behavior match scores. As anticipated, the degree to which a person was in a psychologically strong situation was strongly and negatively related to the degree to which one behaved in a normative fashion ( $\beta = -.39$ ,  $SE = .03$ ,  $t(604) = -11.62$ ,  $p < .0001$ ).

**Hypothesis 4.** Overall congruence will be higher in situations that support autonomy, relatedness to others, and competence.

A similar approach was used to test the fourth hypothesis, that the components of Self-Determination Theory (Deci & Ryan, 1987, 2000; Ryan & Deci, 2000), would predict variation in personality-behavior congruence. Two independent raters familiar with the theory<sup>11</sup> used the RSQ to describe the ideal situation that would promote autonomy, the ideal situation that would promote relatedness to others, and the ideal situation that would promote feelings of competence. These two ratings were averaged to create templates reflecting the prototypical autonomy-promoting situation ( $r = .58$ ,  $\alpha = .73$ ), the prototypical relatedness to others promoting situation ( $r = .67$ ,  $\alpha = .80$ ), and the prototypical competence promoting situation ( $r = .68$ ,  $\alpha = .81$ ).

The three RSQ items with the highest composite rating for the autonomy promoting situation template were, "Situation allows free range of emotional expression," "Affords an opportunity to express unusual ideas or points of view," and "Affords an opportunity to express one's charm." The three RSQ items with the lowest com-

posite rating for the autonomy promoting situation template were, "P[erson]'s independence and autonomy is questioned or threatened," "P[erson] is being pressured to conform to the actions of others," and "Situation includes implicit or explicit behavioral limits." The three RSQ items with the highest composite rating for the relatedness to others promoting situation template were, "Context includes potential for immediate gratification of desires," "Close personal relationships are present or have the potential to develop," and "Talking is permitted, invited, or conventionally expected." The three RSQ items with the lowest composite rating for the relatedness to others promoting situation template were, "P[erson] is being criticized, directly or indirectly," "P[erson] is being insulted, directly or implicitly," and "Someone [present or discussed] is unhappy or suffering." Lastly, the three RSQ items with the highest composite rating for the competence promoting situation template were, "Affords the opportunity to demonstrate intellectual capacity," "Affords an opportunity for demonstrating verbal fluency," and "Context includes intellectual or cognitive stimuli." The three RSQ items with the lowest composite rating for the competence promoting situation template were, "P is being criticized, directly or indirectly," "P is being insulted, directly or implicitly," and "Situation is uncertain or complex."

These templates derived from each element of SDT were correlated with each participant's description of each situation to create a template match score reflecting the degree to which it could be considered autonomy promoting, relatedness promoting, and competence promoting, respectively. Before testing Hypothesis 4, we first examined the inter-correlations amongst these SDT templates (provided by the raters) and the subsequent template match scores. The autonomy template correlated  $r = .56$  with the relatedness template and  $r = .47$  with the competence template while the relatedness template correlated  $r = .40$  with the competence template. This implies that, on a theoretical level, situations in which one's autonomy needs are met may also tend meet one's relatedness and competence needs (and vice versa). The inter-correlations among the template match scores—across all participants across all measurement occasions—were even more telling as the autonomy template match scores ( $M = .18$ ,  $SD = .19$ ) correlated  $r = .86$  with relatedness template match scores ( $M = .25$ ,  $SD = .24$ ) and  $r = .45$  with the competence template match scores ( $M = .29$ ,  $SD = .16$ ) while the relatedness template match scores correlated  $r = .36$  with the competence template match scores. Thus, despite their theoretical differences, the empirical relationship among situations which meet autonomy needs and which meet relatedness needs is nearly perfect. The degree to which a situation meets competence needs is related to the degree to which it meets the other two needs, but the correlation is not so strong.

Several different multi-level models were analyzed to test Hypothesis 4. First, a model with the template match scores serving as a level-1 predictor of overall congruence was computed independently for each of the three SDT template match scores. As hypothesized, all three were statistically significant predictors of overall congruence with standardized betas of .40, .41, and .28 (all  $SEs = .04$ ,  $t_s(604) > 7.93$ , and  $ps < .0001$ ) for autonomy, relatedness, and competence respectively. Next, all three SDT predictor variables were entered into the model at level-1 as simultaneous predictors of overall congruence. In this model, only relatedness and competence remained statistically significant predictors ( $\beta_s = .35$  and  $.18$ ,  $SEs$  of  $.05$  and  $.03$ ,  $t_s$  of  $6.53$  and  $5.67$ ,  $ps < .0001$  and  $< .0001$ , respectively). The autonomy predictor was reduced to  $\beta = .01$  which was due to the high multi-collinearity with the relatedness predictor. However, the meeting of competence needs still remained a unique predictor of congruence when controlling for the degree to which autonomy and relatedness needs were met. This finding indicates that despite the sizeable correlations between the competence predictor and the other two highly over-

<sup>10</sup> The correlation reflecting the agreement between the two raters was  $r = .54$  and so the reliability of the composite was  $.70$ .

<sup>11</sup> These two raters were different from the raters used to form the strong situation composite.

**Table 2**  
Bivariate correlations between two types of congruence and predictor variables.

	1	2	3	4	5	6	7
Overall congruence (1)	–	.61***	–.29***	.48***	.44	.49***	.40***
Distinct congruence (2)		–	–.02	.12 <sup>+</sup>	.04	.21**	.10
Situation strength (3)			–	–.80	–.62	.19*	–.17*
Autonomy (4)				–	.87***	.57***	.22**
Relatedness (5)					–	.53***	.20**
Competence (6)						–	.20**
Adjustment (7)							–

Note: All variables (except Adjustment) are composites across four possible measurement occasions.

- \*  $p < .05$ .
- \*\*  $p < .01$ .
- \*\*\*  $p < .001$ .
- <sup>+</sup>  $p < .10$ .

lapping autonomy and relatedness predictors, the competence predictor provides unique information.

The same strategy was employed for examining SDT predictors of distinct congruence such that a model with the template match scores serving as a level-1 predictor of distinct congruence was computed independently for each of the three SDT template match scores. In all cases, the relationship between SDT template match scores and distinct congruence was lower than their relationships with overall congruence with standardized betas of .08, .08, and .10 (all  $SEs = .04$ ,  $ts (604) > 1.87$ , and  $ps < .0621$ ) for autonomy, relatedness, and competence respectively. Next, all three SDT predictor variables were entered into the model at level-1 as simultaneous predictors of distinct congruence. In this model, none of the SDT template match predictors remained statistically significant predictors ( $\beta s = -.02, .08$ , and  $.07$ ,  $SEs$  of  $.07, .07$ , and  $.04$ ,  $ts$  of  $-0.29, 1.10$ , and  $1.72$ , and  $ps$  of  $.7688, .2715$  and  $.0853$ , for autonomy, relatedness, and competence respectively).

These results support the hypothesis that people display higher levels of overall congruence in situations that promote autonomy, relatedness, and competence. In addition, although people tended to display higher levels of distinctive congruence in these situations as well, the relationship between situations which promote the SDT components and distinctive congruence is weaker and less reliable than with overall congruence. These results imply that while situations that meet one's autonomy, relatedness, and competence needs do not necessarily allow people to behave in ways that are distinctly congruent, they do allow them to behave in normative ways. To examine this possibility we correlated each person's overall behavioral profile in each situation with the normative behavioral profile and retained the  $rs$  as indicators of the degree to which each person behaved in a normative fashion in each situation. Next, we used multilevel modeling to predict the template match scores (for autonomy, relatedness, and competence respectively) from the normative behavior match scores. As anticipated, the degree to which a person was in a situation that met his or her SDT needs was strongly and positively related to the degree to which one behaved in a normative fashion with  $\beta s$  of  $.60 (SE = .03)$ ,  $.68 (SE = .03)$ , and  $.43 (SE = .04)$  (all  $ts (604) > 10.99$ , and  $ps < .0001$ ) for autonomy, relatedness, and competence respectively.

Follow up exploratory analyses examined models of both overall and distinct congruence using both level-2 (i.e. person level-psychological adjustment) and level-1 (i.e. situation level-template match scores) predictors. The analyses first examined the inter-correlations amongst all of the possible predictor variables (calculated by forming person-composites across measurement occasions) and congruence. These correlations are shown in Table 2. As Table 2 shows, amongst the predictors of both types of congruence, there is substantial overlap between the situation strength template match scores, the autonomy template match

**Table 3**  
Multi-level regression predicting overall congruence from person and situation variables.

Fixed effects	$\beta$	$SE$	$df$	$t$	$p$
Adjustment	.23	.04	198	5.23	<.0001
Relatedness to others	.36	.03	590	10.33	<.0001
Competence	.18	.03	590	6.38	<.0001
Adjustment $\times$ relatedness to others	.08	.03	590	2.32	.0205
Random effects	$\tau$				
Intercept	.28				
Adjustment	.02				
Relatedness to others	.07				
Adjustment $\times$ relatedness to others	.02				
Residual	.31				

Note:  $\beta s$  are standardized betas.  $\tau s$  are variances. Because these data only include four measurement occasions only three random effects coefficients could be estimated, thus Competence was only estimated as a fixed parameter.

**Table 4**  
Multi-level regression predicting distinct congruence from person and situation variables.

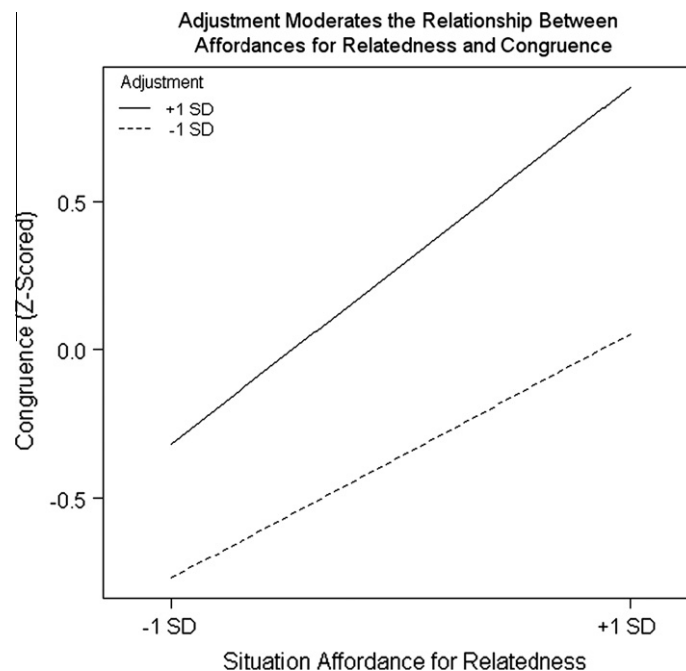
Fixed effects	$\beta$	$SE$	$df$	$t$	$p$
Adjustment	.08	.05	198	1.56	.1213
Relatedness to others	.05	.04	590	1.16	.2446
Competence	.07	.04	590	2.00	.0454
Adjustment $\times$ relatedness to others	.06	.04	590	1.34	.1820
Random effects	$\tau$				
Intercept	.18				
Adjustment	.10				
Relatedness to others	.07				
Adjustment $\times$ relatedness to others	.02				
Residual	.64				

Note:  $\beta s$  are standardized betas.  $\tau s$  are variances. Because these data only include four measurement occasions only three random effects coefficients could be estimated, thus Competence was only estimated as a fixed parameter.

scores, and the relatedness template match scores (all  $|rs| > .65$ ). Thus, for the purposes of this follow up analysis, only psychological adjustment, relatedness to others, and competence were used as predictors of both types of congruence.<sup>12</sup> In addition, we examined the possible interaction between psychological adjustment and the degree to which situations met relatedness needs. The results for overall and distinct congruence are displayed in Tables 3 and 4 respectively.

As Table 3 shows, both person-level variables (i.e. psychological adjustment) and situation level variables (i.e. relatedness and competence affordances) uniquely contribute to the prediction of over-

<sup>12</sup> If either Autonomy or Situation Strength is used in place of Relatedness in this analysis the results are nearly identical.



**Fig. 2.** Figuring displaying how the relationship between situational affordances for meeting one's relatedness to others needs and personality-behavior congruence varies as a function of one's level of psychological adjustment.

all levels of personality-behavior congruence. In addition, the interaction between psychological adjustment and the degree to which situations meet relatedness needs implies that the relationship between situational affordances for relatedness and overall congruence varies depending on one's level of psychological adjustment, such that well-adjusted persons get a bigger boost in situations that meet their relatedness needs compared to those who are less well-adjusted. A graphical display of this result is shown in Fig. 2.

The story for distinctive congruence is quite different, however. As Table 4 shows, the only statistically significant predictor of distinctive congruence was competence. Even so, this link between situational affordances for competence and distinctive congruence was notably weaker than the link with overall levels of congruence indicating that both person variables and situation variables are relatively weak predictors of distinctive congruence.

#### 4. Discussion

All hypotheses outlined at the beginning of this article were supported: (1) within each of four situations reported from their daily lives, on average people demonstrated overall personality-behavior congruence, as well distinctive personality-behavior congruence. (2) Psychologically well-adjusted individuals displayed higher levels of overall personality-behavior congruence than did less well-adjusted individuals, however, psychological adjustment was more weakly associated with distinctive levels of personality-behavior congruence. (3) People displayed more overall personality-behavior congruence in situations low in situational strength, as predicted by the Strong Situation Hypothesis, however situation strength was weakly and less reliably associated with distinctive congruence. (4) Lastly, people displayed more overall congruence in situations that met one's autonomy, relatedness to others, and competence needs as predicted by Self-Determination Theory, however distinctive levels of congruence were not related to these situational affordances. In addition to confirming these hypotheses, the results also discourage an otherwise reasonable-seeming

alternative hypothesis implying a curvilinear relationship between congruence and psychological adjustment. Moreover, these data indicate that both a person-level variable (i.e. psychological adjustment) and situational-level variables (i.e. degree to which one's relatedness and competence needs are met) independently predicted the degree to which individuals displayed overall congruence between their personality and their behavior. However, only the degree to which a situation met one's competence needs remained a reliable, albeit notably weaker, predictor of distinctive congruence.

These results make several important points. First, they clearly indicate that despite the relatively high correlation between overall levels of congruence and distinctive levels of congruence ( $r = .61$ ), they are psychologically different concepts. While in all cases the relationships between predictor variables and distinctive congruence were in the same direction as with overall congruence, the over-arching conclusion must be that overall congruence was reliably related to theoretically relevant and psychologically important aspects of both persons and situations, and distinctive congruence was not. On a more general level, these results add to a growing literature demonstrating important psychological differences between normativeness and distinctiveness (e.g. Biesanz, West, & Millevoi, 2007; Klimstra et al., 2010; Klimstra, Hale, Raaijmakers, & Meeus, 2011). We strongly encourage future researchers to consider how normativeness and distinctiveness may address psychologically different phenomena of interest and suspect that this growing trend will continue.

Second, these results imply that the oft cited relationship between psychological adjustment and authenticity and/or consistency and phrases such as Polonius' famous "To thine own self be true," while not exactly false, are potentially misleading. Consistent with the implications from Fleson & Wilt (2010), it seems that behaving in accordance with one's true self is only related to positive psychological outcomes when such behavior is in accordance with normative standards. This is perhaps most clearly seen in these data on Table 2 where psychological adjustment is correlated  $r = .40$  with overall levels of congruence (which includes normativeness) and  $r = .10$  with distinctive levels of congruence. This conclusion is further supported by the finding that the match be-



tween one's overall personality profile and the average personality profile was highly correlated with psychological adjustment ( $r = .61$ ). Given that the normative personality profile is a psychologically well-adjusted one and that by definition most people are normative (hence the term "normal"), it is no surprise that authenticity, consistency, and congruence are frequently identified as related to psychological adjustment. Therefore, this study adds an important caveat to the body of empirical evidence that behaving more in accord with one's characteristic personality is an indicator of psychological health (Block, 1961; Clifton & Kuper, 2011; Colvin, 1993; Diehl & Hay, 2007, 2010; Erickson et al., 2009). On a practical level, words of wisdom such as "just be yourself" may only apply inasmuch as being oneself means being normative. Perhaps such words of wisdom should be replaced by the phrase, "just be normative," or even "try to be normal."

These results have parallel implications for understanding situations. The fact that situational factors (i.e. situation strength, affordances for autonomy, relatedness, and competence) were more powerfully and reliably connected to overall congruence than distinctive congruence indicates that psychologically weak situations and situations that afford meeting of one's autonomy, competence, and relatedness needs are situations which allow one to behave more normatively. This suspicion was confirmed by the fact that the match between one's overall behavioral profile in a given situation and the normative behavioral profile across all situations was strongly related to the degree to which one was in a psychologically strong situation ( $\beta = -.39$ ) and the degree to which the situation met one's needs for autonomy ( $\beta = .60$ ), relatedness ( $\beta = .68$ ), and competence ( $\beta = .43$ ).

Although we have strongly emphasized the differences between overall congruence and distinctive congruence throughout this article, it is important to point out that overall congruence, by itself, is far from psychologically meaningless. Further, we are not suggesting that previous studies measuring authenticity which did not separate normative and distinctive components are uninformative. Indeed, just as stereotype or normative accuracy is still accuracy in the person-perception literature, overall congruence is still congruence and is important in its own right.

In the present article, one of the most important findings regarding overall level of congruence is that both a person-level variable (i.e. psychological adjustment) and situation-level variables (situation strength, affordance for autonomy, relatedness, and competence) independently predicted it. That is, the likelihood that an individual's behavior will match his or her personality – including, critically, the normative aspects of both – has been found to depend on the level of the individual's psychological adjustment and the degree to which the particular situation meets his or her needs for relatedness and competence, or allows the individual to feel autonomous and unrestrained (i.e. a weak situation). Thus, the highest levels of overall congruence were displayed by individuals who were both well-adjusted and found themselves in situations that promoted relatedness and competence.

For example, one participant who scored 1.77 SDs (the 8th highest overall congruence score in the sample) above the mean on congruence described his situation as, "Thursday night at nine I was doing homework. I was at my desk in my dorm at Lothian. I was with my girlfriend, she was doing homework also. I was doing chemistry work and she was doing Spanish, this went on for a couple hours." This participant was well-adjusted ( $Z$ -scored adjustment = 1.44) and felt his relatedness ( $Z$ -scored relatedness template match = 1.21) and competence ( $Z$ -scored competence template match = .93) needs were being met. However, sometimes participants achieved high levels of overall congruence despite the fact one set of factors was working against them. For example, one well-adjusted participant ( $Z$ -scored adjustment = 1.79) reported high levels of overall congruence ( $Z$ -scored overall congru-

ence = 1.79; 5th highest in the sample) despite that fact that his relatedness needs ( $Z$ -scored relatedness template match =  $-1.91$ ) and competence needs ( $Z$ -scored competence template match = .20) were not well met in a situation he described as, "I hadn't gotten much sleep the night before. I just sat in a chair contemplating what needed to be done for my next class." On still other occasions participants who were generally well-adjusted displayed low levels of overall congruence when their situations did not meet their needs. One relatively well-adjusted participant ( $Z$ -scored adjustment = 1.26) displayed low levels of overall congruence ( $Z$ -scored overall congruence =  $-3.70$ ; lowest congruence score in the sample) in the situation, "Walking to Scott's to get a Turkey club sandwich my room-mates had went and left me behind" likely because neither his relatedness needs ( $Z$ -scored relatedness template match =  $-1.70$ ) nor competence needs were well-met ( $Z$ -scored competence template match =  $-2.52$ ). As we hope the results and these examples make clear, two forces independently contribute to the degree to which one displays overall congruence between his or her personality and his or her behavior in a given situation: (1) the person's level of psychological adjustment and (2) the degree to which the situation meets his or her needs.

### Acknowledgments

This research was supported by National Science Foundation Grant BNS BCS-0642243, David C. Funder, Principal Investigator. Any opinions, findings, conclusions or recommendations expressed in this article are those of the individual researchers and do not necessarily reflect the views of the National Science Foundation. We thank Jasenka Turkusic, Esther Guillaume, and Elysia Todd for providing theoretical template ratings and Rich Ryan and Ed Deci for providing confirmatory theoretical ratings for the Self-Determination Theory templates. We also thank Daniel Ozer and Mike Furr for conversations regarding statistical analyses and analytic approaches, however, any errors and omissions remain our own. All statistical analyses were conducted and Figures displayed in this article were created using R (R Development Core Team, 2010).

### Appendix A

List of 42 CAQ (personality)-RBQ (behavior) Analogues in CAQ Item Order.

CAQ Item (personality)	RBQ Item (behavior)
01 – Is critical, skeptical, not easily impressed	19 – Expresses criticism (of anybody or anything) (Low placement = expresses praise)
03 – Has a wide range of interests. <i>Regardless of how deep or superficial the interests may be</i>	16 – Shows a wide range of interests (e.g., talks about many topics)
04 – Is a talkative individual	20 – Is talkative (as observed in this situation)
08 – Appears to have a high degree of intellectual capacity. <i>This item refers to capability, not necessarily performance. Also, originality is not assumed</i>	23 – Exhibits a high degree of intelligence (Give this item high placement only if P actually says or does something of high intelligence. Low placement = exhibition of low intelligence. Medium placement = no information one way or another)

**Appendix A (continued)**

CAQ Item (personality)	RBQ Item (behavior)
10 – Anxiety and tension find outlet in bodily symptoms. <i>Low Placement implies that body does not react at all to stress (e.g., person does not perspire, shake, or have other bodily signs of nervousness.) High Placement implies bodily dysfunction or physical illness caused by stress</i>	22 – Show physical signs of tension or anxiety (e.g., fidgets nervously, voice wavers) (Middle placement = Lack of signs of anxiety. Low placement = lack of signs under circumstances where you would expect them)
14 – Genuinely submissive; accepts domination comfortably [REVERSE SCORED]	05 – Dominates the situation (disregard intention, e.g., if P dominates the situation by default because other(s) present does very little, this item should receive high placement)
17 – Behaves in a sympathetic or considerate manner	24 – Expresses sympathy (to anyone, i.e., including conversational references) (low placement = unusual lack of sympathy)
18 – Initiates humor. <i>E.g., makes jokes or tells humorous stories</i>	25 – Initiates humor
19 – Seeks reassurance from others	26 – Seeks reassurance (e.g., asks for agreement, fishes for praise)
20 – Has a rapid personal tempo; behaves and acts quickly	61 – Speaks quickly (low placement = speaks slowly)
23 – Extrapunitive; tends to transfer or project blame. <i>Tends to blame others for own failures or faults</i>	46 – Blames others (for anything)
26 – Is productive; gets things done	64 – Concentrates on or works hard at a task
27 – Shows condescending behavior in relations with others. <i>Acts as if self is superior to others. Low Placement implies only absence of acting superior, not necessarily acting as if all people are equal or that self is inferior to others</i>	27 – Exhibits condescending behavior (e.g., acts as if self is superior to other(s) [present, or otherwise]) (Low placement = acting inferior)
28 – Tends to arouse liking and acceptance in people	28 – Seems likable (to other(s) present)
29 – Is turned to for advice and reassurance	63 – Other(s) seeks advice from P
30 – Gives up and withdraws where possible in the face of frustration and adversity. <i>Low Placement implies person tries even harder when obstacles appear. High Placement implies generally defeatist, gives up easily</i>	50 – Gives up when faced with obstacles (low placement implies unusual persistence)
31 – Regards self as physically attractive	30 – Appears to regard self as physically attractive

**Appendix A (continued)**

CAQ Item (personality)	RBQ Item (behavior)
33 – Is calm, relaxed in manner	06 – Appears to be relaxed and comfortable
34 – Over-reactive to minor frustrations; irritable	31 – Acts irritated
35 – Has warmth; has the capacity for close relationships; compassionate	32 – Expresses warmth (to anyone, e.g., including affectionate references to close friends, etc.)
36 – Is subtly negativistic; tends to undermine and obstruct or sabotage	33 – Tries to undermine, sabotage or obstruct
38 – Has hostility toward others. <i>Feelings of hostility are intended here, regardless of how or whether they are actually expressed</i>	34 – Expresses hostility (no matter toward whom or what)
40 – Is vulnerable to real or fancied threat, generally fearful	36 – Behaves in a fearful or timid manner
43 – Is facially and/or gesturally expressive	37 – Is expressive in face, voice or gestures
46 – Engages in personal fantasy and daydreams, fictional speculations	38 – Expresses interest in fantasy or daydreams (low placement only if such interest is explicitly disavowed)
47 – Has a readiness to feel guilt. <i>Feelings of guilt are intended here, regardless of how or whether they are actually expressed</i>	39 – Expresses guilt (about anything)
48 – Keeps people at a distance; avoids close interpersonal relationships	40 – Keeps other(s) at a distance; avoids development of any sort of interpersonal relationship (low placement = behavior to get close to other(s))
51 – Genuinely values intellectual and cognitive matters. <i>Ability or achievement is not implied here</i>	41 – Shows interest in intellectual or cognitive matters (discusses an intellectual idea in detail or with enthusiasm)
55 – Is self-defeating. <i>Acts in ways which undermine, sabotage, or frustrate his or her own goals and desires</i>	44 – Says negative things about self (e.g., is self-critical; expresses feelings of inadequacy)
57 – Is an interesting, arresting person	43 – Says or does something interesting
67 – Is self-indulgent. <i>Reluctant to deny self pleasure; tends to spoil self with pleasurable activities</i>	66 – Acts in a self-indulgent manner (e.g., spending, eating, or drinking) (Low placement implies self-denial)
68 – Is basically anxious. <i>Nervous, worries a lot underneath</i>	21 – Expresses insecurity (e.g., seems touchy or overly sensitive)
71 – Has high aspiration level for self	45 – Displays ambition (e.g., passionate discussion of career plans, course grades, opportunities to make money)

(continued on next page)

## Appendix A (continued)

CAQ Item (personality)	RBQ Item (behavior)
73 – Tends to perceive many different contexts in sexual terms; eroticizes situations. <i>Sees sexual overtones in most interactions</i>	48 – Expresses sexual interest (e.g., acts attracted to someone present; expresses interest in dating or sexual matters in general)
78 – Feels cheated and victimized by life; self-pitying	47 – Expresses self-pity or feelings of victimization
84 – Is cheerful. <i>Low Placement implies unhappiness or depression</i>	49 – Behaves in a cheerful manner
88 – Is personally charming. [REVERSE SCORED]	13 – Exhibits an awkward interpersonal style (e.g., seems to have difficulty knowing what to say, mumbles, fails to respond to conversational advances)
92 – Has social poise and presence; appears socially at ease	07 – Exhibits social skills (e.g., makes other(s) comfortable, keeps conversation moving, entertains or charms other(s))
93 – a. Behaves in a masculine style and manner. b. Behaves in a feminine style and manner. <i>The culture's definition of masculinity or femininity is to be applied here. If subject is male, 93a. applies; if subject is female, 93b. is to be evaluated</i>	51 – Behaves in a stereotypically masculine or feminine style or manner (apply the usual stereotypes appropriate to the sex of P. Low placement = behavior stereotypical of the opposite sex)
95 – Tends to proffer advice. <i>Proffer = offer or give</i>	52 – Offers advice
97 – Is emotionally bland; has flattened affect. <i>Tends not to experience strong or intense emotions</i>	08 – Is reserved and unexpressive (e.g., expresses little affect; acts in a stiff, formal manner)
98 – Is verbally fluent; can express ideas well	53 – Speaks fluently and expresses ideas well

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