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The Authenticity Scale: Psychometric Properties of a French Translation and Exploration of Its Relationships With Personality and Well-Being

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In this article, we examined the psychometric properties of a French translation of the Authenticity Scale created by A. M. Wood, P. A. Linley, J. Maltby, M. Baliousis, and S. Joseph (2008, The authentic personality: A theoretical and empirical conceptualization and the development of the authenticity scale, Journal of Counseling Psychology, 55, 385–399). In the first study (N = 188), we assessed the reliability of this translation as well as its construct validity and discriminant validity from the Big Five personality traits. In the second study (N = 437), we conducted a confirmatory factor analysis to confirm the factorial structure found in Study 1 and the factorial structure obtained by Wood et al. (2008). The results show that the psychometric properties of the French Authenticity Scale are comparable to those of the original English version. The scale has both good scale score reliability (α = .77 to .82) and temporal stability over an 8-week period (r = .54 to .69). It is based on a three-factor solution explaining 60% of the variance. The scale shows discriminant validity from the Big Five personality traits and is related to both subjective and psychological well-being. This article provides a valid and reliable instrument in French that measures dispositional authenticity and will be useful to clinicians, counselors, and researchers.

Keywords: authenticity scale, French translation, well-being, personality

The notion of authenticity has received a great deal of interest in recent years, particularly from authors describing its relevance in clinical, counseling, and management contexts (Avolio & Gardner, 2005; Kernis & Goldman, 2006). The resurgence of this concept in the literature might suggest that the notion of authenticity is new, although “multiple meanings of authenticity and discrepancies in authenticity have been examined [throughout the] history of philosophy and psychology” (Novicevic, Harvey, Buckley, Brown & Evans, 2006, p. 65). However, there are few validated instruments that would allow researchers and practitioners to adequately assess authenticity in counseling and research contexts. This article aims to fill this gap by exploring the psychometric properties of a French translation of the Authenticity Scale, a measure of dispositional authenticity developed by Wood et al. (2008).

Conceptions of Authenticity

Historically, authenticity has been conceptualized from both interpersonal and intrapersonal perspectives (Ménard & Brunet, 2012; Novicevic et al., 2006). In the interpersonal perspective, authenticity is defined in philosophical terms through individual virtues and ethical choices. Being authentic means taking responsibility for one’s decisions and respecting social norms and other individuals. According to this perspective, someone who is authentic is ethical and exhibits integrity. This perspective involves judgments made by other people to determine to what extent the individual is authentic. Existentialist philosophers, such as Heidegger (1962) and Sartre (1948), wrote extensively on authenticity, linking the concept to the human need to maintain a personal balance between individual will or responsibility and collective expectations. Kierkegaard (1987) argued that individuals undertake action to the extent that their emotional perceptions of situations are consistent and uncontaminated by social considerations that push aside authentic emotions.

The intrapersonal view of authenticity was inspired largely by Kierkegaard’s vision (DeCarvalho, 1989). Indeed, the self is seen as a psychological entity, distinct from the concept of mind and soul. In this perspective, being authentic is being one’s true or real self and acting in congruence with one’s values (Erikson, 1959; Maslow, 1976) and does not imply any moral judgment (Ménard, 2008). According to the humanistic view, congruence between subjective experience and behavior was seen as both a bulwark against psychopathology and a means for attaining well-being and freedom (May, 1981; Yalom, 1980). Rogers (1961) highlighted the importance of being one’s true self and stated that authenticity comes from the concordance between one’s self and immediate experience.

Based on Rogers’ person-centered psychology, Barrett-Lennard (1998) proposed a model conceptualizing authenticity as the “consistency between the three levels of (a) a person’s primary experience, (b) their symbolized awareness, and (c) their outward behaviour and communication” (p. 82). The first component of authenticity, self- alienation, is experienced in reaction to the mismatch between actual experience and conscious or symbolized
awareness. Although some level of self-alienation is inevitable, when present to a great extent this mismatch could lead to psychopathology. The “subjective feeling of not knowing oneself, or feeling out of touch with our true self” (Wood et al., 2008, p. 386) is indicative of this aspect. The second component, authentic living, represents the match between experience as consciously perceived and behavior. It involves behaving and expressing emotions in a way that is consistent with what the person is aware of, that is, his or her psychological states, emotions, beliefs, and cognitions. In other words, to live authentically is to express one’s true self in most situations and to live in accordance with one’s values and beliefs. The third aspect of authenticity, accepting the influence of others, refers to the extent to which one is open to the influence of others and the belief that one has to conform to their expectations.

More recently, the positive psychology movement, with its empirical examination of humanist assumptions, has revived interest in the notion of authenticity and helped clarify the intrapersonal conception of authenticity. Indeed, self-determination theorists such as Deci and Ryan (2000) and Sheldon and Kasser (1995) refer to authenticity in terms of self-determined or self-initiated behaviors in concordance with the basic, intrinsic psychological needs of competency, autonomy, and relatedness. Deci and Ryan (2000) define authenticity as aspects of the personality that are fully self-endorsed, volitionally enacted, and personally meaningful to the individual. Thus, self-determined individuals internally self-regulate in order to satisfy their psychological needs for competence, autonomy, and social relatedness.

Measurement of Authenticity

Despite these efforts to conceptualize authenticity, the empirical study of this construct has been largely neglected. Harter (2002) notes a definitional confusion regarding the construct of authenticity in empirical studies. For example, some studies have asked people to rate themselves on a false-self-to–true-self continuum (e.g., Harter, Marold, Whitesell, & Cobbs, 1996), whereas others have asked the extent to which people’s behavior varies across social roles (e.g., Sheldon, Ryan, Rawsthorne, & Iardi, 1997), hence using an indirect measure of authenticity. To our knowledge, only two instruments directly assess authenticity, the Authenticity Inventory (Goldman & Kernis, 2002, 2004) and the Authenticity Scale (Wood et al., 2008). Two other instruments, the Authentic Leadership Questionnaire (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008) and the Authentic Leadership Inventory (Neider & Schriesheim, 2011) have been developed to assess authenticity in a management role and will not be described extensively in this article because their use may be suitable mostly in executive coaching contexts.

The Authenticity Inventory was developed by Goldman and Kernis (2002, 2004) and is comprised of 45 statements that assess four components of authenticity: (a) awareness of self, (b) unbiased processing of information about one’s self, (c) behavior or action in concordance with one’s self, and (d) relational orientation (being genuine in one’s relationships). Unfortunately, information on the psychometric properties of this scale is scarce. Furthermore, there is no information available concerning its temporal stability. Scale score reliability for the whole scale was satisfactory (α = .83); however, when examined separately, the consistency for the relational orientation and unbiased processing components was weak (α = .32 and .52, respectively). A study by Ménard (2008) using the French translation of the scale suggests that authenticity may have two distinct components rather than four: namely, cognitive authenticity and behavioral authenticity. However, additional research is needed to validate the structure of the Authenticity Inventory before it can be used for counseling or research purposes.

More recently, Wood et al. (2008) developed the Authenticity Scale, a measure of dispositional authenticity based on person-centered psychology (Rogers, 1961). In keeping with the Barrett-Lennard model of authenticity described above, the Authenticity Scale consists of three subscales of four items each. The self-alienation subscale measures the extent to which individuals are “out of touch” with themselves. The authentic living subscale examines the degree to which behaviors are consistent with one’s conscious awareness of his or her internal experience. The accepting external influence subscale examines the degree to which interpersonal relationships influence one’s behaviors. Higher scores on the Authenticity Scale indicate being more in touch with one’s internal experience, behaving in a manner more consistent with one’s values, and having less of a tendency to conform to the expectations of others.

The validation studies conducted by Wood et al. (2008) indicate that the authenticity subscales were moderately intercorrelated (r varying from −.40 to .42) according to Cohen’s (1988) criteria. Alpha values ranged from .69 to .78 and test–retest reliability coefficients ranged from .79 to .84 (over 2 weeks) and from .78 to .81 (over 4 weeks). The factorial structure of the Authenticity Scale was found to be robust and consistent across diverse demographic groups. The scale showed appropriate but distinct variance from personality traits. For example, the Five Factor Model of personality accounted for a small but significant 11% to 13% of the variance for the three subscales. Gray’s (1982) behavioral inhibition/approach system and Cloninger’s psychobiological model of personality (Cloninger, Svrakic, & Przybeck, 1993) accounted for between 5.8% and 18% of the variance in authenticity (Pinto, Maltby, & Wood, 2011). Among the various personality scales, the Honesty–Humility factor of personality (Ashton, Lee, & Goldberg, 2007) showed the strongest association with authenticity, as this factor comprises terms such as truthfulness, positive values, honesty, and sincerity (Maltby, Wood, Day, & Pinto, 2012). Assessment of the convergent validity of the Authenticity Scale has shown that it is moderately correlated with both subjective well-being (self-esteem, stress, life satisfaction, anxiety, positive and negative affect) and psychological well-being (autonomy, environmental mastery, personal growth, purpose in life, self-acceptance, positive relation with others, gratitude; Wood et al., 2008). Other studies have demonstrated relationships of the Authenticity Scale with career indecision (White & Tracey, 2011) and aggression (Pinto, Maltby, Wood, & Day, 2012).

The Authenticity Scale thus seems to be a promising tool for measuring dispositional authenticity. Among the strengths associated with the scale, the smaller number of items (12 items vs. 45 for the Authenticity Inventory) makes it more convenient to use in clinical or counseling settings. Also, the Authenticity Scale can be used with employees at any level of an organization (vs. authentic leadership measures). Moreover, its factor structure is inspired by grounded theory, the Barrett-Lennard model of authenticity, which
was supported by high factor loadings in exploratory and confirmatory factor analyses. On the other hand, the four components of authenticity in the Goldman and Kerns’ model (2002, 2004) appear to overlap, both conceptually and statistically, undermining its validity (Ménard, 2008). For these reasons, the scale developed by Wood et al. (2008) appears to provide a more comprehensive explanation of the concept of authenticity and is considered more useful to practitioners and researchers.

Unfortunately, the scale has not yet been translated into French and thus cannot be used by French-speaking practitioners and researchers. This article reports findings from two validation studies carried out to explore the psychometric properties of a French translation of the Authenticity Scale. We used a methodology similar to that forwarded by Wood et al. (2008) in developing the original version of the scale. The goals of Study 1 were to (a) assess the construct validity of this French version by exploring its factor structure, the patterns of subscale intercorrelations, and its convergent validity with measures of subjective and psychological well-being, (b) assess its reliability by examining both scale score reliability and temporal stability, and (c) explore its discriminant validity from the Big Five personality traits. The goal of Study 2 was to confirm the factor structure found in Study 1 and that obtained by Wood et al. (2008) with a larger population using confirmatory factor analysis (CFA).

Study 1

Method

Participants and procedures. In order to translate the Authenticity Scale into French, the guidelines suggested by Brislin (1970) and Vallerand (1989) regarding translation and transcultural validation of psychometric tools were followed. The authors first translated the scale’s items and instructions into French. A professional translator was then asked to translate this French version back to English (without having access to the original version). During a meeting involving the first two authors and the translator, each item of this new, “retranslated” English version was compared with the original version and scrutinized. This step led to the adjustment of four items. To make sure the items in this preliminary French version were clear, a pretest was then conducted with 16 graduate students in counseling. The students were asked to assess the clarity of the items using a 5-point Likert scale, ranging from 1 (not clear at all) to 5 (completely clear). When they considered an item unclear or ambiguous, the students were asked to underline the word that seemed problematic and suggest an alternative. This step led to the adjustment of one item.

This revised French version was then validated with 188 graduate and undergraduate students in counseling. Their ages ranged from 19 to 58 years (mean age = 28.63; SD = 8.97), and the majority were women (79.3%). The students first filled out the questionnaires presented below at their own pace during a group session held during regular course time (Time 1). Eight weeks later, they were contacted, via e-mail or during class, and invited to complete the Authenticity Scale to establish test–retest reliability of the instrument (Time 2). One hundred forty-four students completed the questionnaire at Time 2. The data for each participant was matched using a confidentiality code.

Measures. Dispositional authenticity was assessed using the French translation of the Authenticity Scale (Wood et al., 2008). The 12-item scale contains three subscales: self-alienation (e.g., “I feel as if I don’t know myself very well”), authentic living (e.g., “I am true to myself in most situations”), and accepting external influence (e.g., “I usually do what other people tell me to do”). The items are rated on a Likert scale, ranging from 1 (does not describe me at all) to 7 (describes me very well).

Subjective well-being was measured with the French version of the Positive and Negative Affect Schedule (PANAS; Gaudreau, 2000; Watson, Clark, & Tellegen, 1988) and the Satisfaction With Life Scale (SWLS; Blais, Vallerand, Pelletier, & Brière, 1989; Diener, Emmons, Larsen, & Griffin, 1985).

The PANAS is comprised of 10 positive mood adjectives such as “proud” and 10 negative mood adjectives such as “scared.” It was used in this study to assess the frequency of positive and negative affect of participants over the last 30 days. The PANAS uses a 5-point Likert scale, ranging from 1 (not at all or very slightly) to 5 (extremely). Stronger scores indicate higher affect. In this study, Cronbach’s alpha coefficients were .81 for the positive-affect scale and .82 for the negative-affect scale.

The SWLS is a 7-point scale (e.g., “The conditions of my life have been excellent”) based on a Likert scale, ranging from 1 (totally disagree) to 7 (totally agree). Higher scores indicate higher life satisfaction. The SWLS is among the most commonly used measure of the evaluative component of subjective well-being. The psychometric properties of the French version are good and are comparable to the original version (Blais et al., 1989). In this study, Cronbach’s alpha coefficient for this instrument was .72.

Psychological well-being was measured using the French version of the Scales of Psychological Well-Being–Short Form (Lapierre & Desroches, 1997; Ryff & Keyes, 1995). This instrument measures six dimensions: autonomy (e.g., “I have confidence in my opinions, even if they are contrary to the general consensus”), environmental mastery (e.g., “In general, I feel I am in charge of the situation in which I live”), positive relations with others (e.g., “People would describe me as a giving person, willing to share my time with others”), personal growth (e.g., “For me, life has been a continuous process of learning, changing, and growth”), purpose in life (e.g., “Some people wander aimlessly through life, but I am not one of them”), and self-acceptance (e.g., “I like most aspects of my personality”). Each scale contains three items rated on a 6-point Likert scale, ranging from 1 (totally disagree) to 6 (totally agree). Greater scores indicate higher psychological well-being. In the current study, alpha values for the six dimensions were disappointing, ranging from .23 to .68. It was thus decided to use a global score showing better scale score reliability (.86) and a mean corrected item-total correlation of .44.

The Big Five personality factors of neuroticism (N), extraversion (E), openness (O), agreeableness (A), and conscientiousness (C) were measured using the French-Canadian version of the NEO Five-Factor Inventory–Form S (NEO-FFI; Costa & McCrae, 1992; Bouchard, Lussier, & Sabourin, 1999). In this questionnaire, each factor is measured using 12 items rated on a 5-point Likert scale (1 = totally disagree; 5 = totally agree). The French version of the NEO-FFI has good psychometric properties and is “... roughly equivalent to the original English language version” (Rolland, Parker, & Stumpf, 1998, p.287). In this study, alpha values ranged from .69 to .86.
All statistics were calculated using the SPSS Advanced Statistics 20 software package (SPSS Inc., 2011).

Results and Discussion

Construct validity. The 12 items of the scale were first subjected to an exploratory factor analysis (EFA) (maximum likelihood extraction) to assess the construct validity of the scale. The Bartlett's Test of Sphericity, \( \chi^2(66) = 709.26, p < .0001 \), and the Kaiser-Meyer-Olkin value (.80) suggested that the data were suitable for this type of analysis. EFA revealed three factors with eigenvalues greater than 1, and the scree plot indicated a clear break after the third factor. In order to test this three-factor solution, two web-based parallel analyses (WPA) were used: one developed by Patil, Singh, Mishra, and Donavan (2008) and one developed by Watson (2000) using a Monte Carlo simulation. Both WPA provided similar results and supported a three-factor solution explaining a total of 60.15% of the variance (Factor 1: 33.59%, eigenvalue = 4.05; Factor 2: 14.65%, eigenvalue = 1.74; Factor 3: 11.90%, eigenvalue = 1.42). As these factors were both theoretically and empirically related, they were then extracted using oblimin rotation. Table 1 shows the initial and extracted communalities and factor loadings for all items. The items that strongly loaded on Factor 1 correspond to the accept external influence subscale, those that loaded on Factor 2 correspond to the authentic living subscale, and those that loaded on Factor 3 correspond to the self-alienation subscale. All items loaded on their respective factor, and all the loading factors were greater than .40.

The results of the EFA also showed that the three subscales were intercorrelated. Accepting external influence correlated with authentic living \( (r = -.29, p < .01) \) and with self-alienation \( (r = .45, p < .01) \). Authentic living was also correlated with self-alienation \( (r = -.32, p < .01) \). These coefficients were comparable to those obtained by Wood et al. (2008), which ranged from \(-.44 \) to \(.40 \). The EFA also indicated that the factor structure of the French version of the Authenticity Scale is similar to that of the original scale and supports the tripartite conception of authenticity proposed by Barrett-Lennard (1998). Combined, the self-alienation, authentic living, and accepting external influence factors explained more than 60% of the variance. Moreover, the subscales were moderately correlated, suggesting that they measure distinct yet related constructs. Taken together, these results indicate that the structure of the French version of the scale is good and coincides with the original version.

All three authenticity subscales were significantly correlated with subjective and psychological well-being scales (see Table 2). The authentic living subscale was positively correlated with positive affect, life satisfaction, and psychological well-being and was negatively correlated with negative affect. The self-alienation and accepting external influence subscales showed the same pattern of correlations, although self-alienation appeared to have the strongest relationship with subjective well-being. This last result suggests that when people feel they do not know themselves very well or have the impression they are out of touch with their true self, they are more prone to report low psychological well-being and low satisfaction with life. They also tend to experience more negative affect and less positive affect. Taken together, these results support the convergent validity of the scale and suggest that authenticity is linked to well-being.

Reliability. Various analyses were also conducted to assess the reliability of the scale. Table 3 shows the Cronbach's alpha values for the authenticity subscales as well as the mean change and stability coefficients over an 8-week period. It needs to be

<table>
<thead>
<tr>
<th>Items</th>
<th>Communalities</th>
<th>Pattern coefficients</th>
<th>Structure coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Les autres m’influencent énormément (Other people influence me greatly).</td>
<td>.62</td>
<td>.80</td>
<td>.89</td>
</tr>
<tr>
<td>3. Je suis fortement influencé par les opinions des autres (I am strongly influenced by the opinions of others).</td>
<td>.54</td>
<td>.59</td>
<td>.74</td>
</tr>
<tr>
<td>5. J’ai toujours l’impression que je dois faire ce que les autres attendent de moi (I always feel I need to do what others expect me to do).</td>
<td>.37</td>
<td>.38</td>
<td>.62</td>
</tr>
<tr>
<td>4. Habituellement, je fais ce que les autres me disent de faire (I usually do what other people tell me to do).</td>
<td>.26</td>
<td>.26</td>
<td>.44</td>
</tr>
<tr>
<td>9. Je suis fidèle à moi-même dans la plupart des situations (I am true to myself in most situations).</td>
<td>.46</td>
<td>.67</td>
<td>.05</td>
</tr>
<tr>
<td>8. Je défends toujours ce en quoi je crois (I always stand by what I believe in).</td>
<td>.36</td>
<td>.45</td>
<td>-.10</td>
</tr>
<tr>
<td>11. Je vis en accord avec mes valeurs et mes croyances (I live in accordance with my values and beliefs).</td>
<td>.36</td>
<td>.40</td>
<td>-.02</td>
</tr>
<tr>
<td>1. Je pense que c’est mieux d’être soi-même que d’être populaire (I think it is better to be yourself, than to be popular).</td>
<td>.52</td>
<td>.65</td>
<td>.15</td>
</tr>
<tr>
<td>7. J’ai l’impression que je ne me connais pas très bien (I feel as if I don’t know myself very well).</td>
<td>.18</td>
<td>.20</td>
<td>-.05</td>
</tr>
<tr>
<td>10.Je ne me sens pas en contact avec le “vrai moi” (I feel out of touch with the &quot;real me&quot;).</td>
<td>.41</td>
<td>.51</td>
<td>-.11</td>
</tr>
<tr>
<td>12. Je me sens déconnecté de moi-même (I feel alienated from myself).</td>
<td>.33</td>
<td>.40</td>
<td>-.06</td>
</tr>
<tr>
<td>2. Je ne sais pas comment je me sens réellement à l’intérieur (I don’t know how I really feel inside).</td>
<td>.37</td>
<td>.42</td>
<td>.19</td>
</tr>
</tbody>
</table>

Note. F = Factor. Highest loadings for each factor in bold type.
noted that a longer test–retest period than the one used by Wood et al. (2008) was selected because it was argued that if authenticity were indeed a disposition, we would expect stability over more than 2 or 4 weeks. The alpha values for the French version ranged from .73 to .78. Changes in mean levels for the subscales between Time 1 and Time 2 were small and not significant. Moreover, the intraclass correlations between the two measurement times ranged from .70 to .81. Again, these results are similar to those obtained by Wood et al. (2008) and indicate that the instrument has good scale score reliability. The fact that the alpha coefficients are slightly below those obtained for the original version should not be surprising. As Vallerand (1989) has pointed out, the alpha coefficients obtained using a translated scale cannot be expected to exceed those of the original version because the scale is a reproduction, not a duplication of the original.

The subscales also proved to have good test–retest reliability, although the authentic living subscale seems to be slightly less stable over time compared with the other subscales. This might be due to the fact that, unlike the other subscales, it contains behavioral items (e.g., “I am true to myself in most situations”), which may make the answers to these items more prone to change across time and circumstances. Moreover, in this study, the stability of the instrument was measured over an 8-week period, which might explain the lower coefficients compared with those reported by Wood et al. (2008). As mentioned above, the test–retest reliability of the original version was measured over 2- and 4-week periods, yielding stability coefficients that ranged from .78 to .84 (for the 2-week period) and from .78 to .81 (for the 4-week period; Wood et al., 2008). Generally speaking, correlations decrease as the time interval between measurement points increases. Nevertheless, the results presented here suggest that the French version had good stability over an 8-week period.

**Discriminant validity.** To assess the discriminant validity of the scale from the Big Five personality traits, the procedure used by Wood et al. (2008) was followed. First, the correlations between the authenticity subscales and the NEO-FFI scale were examined (see Table 4). The subscales showed the strongest correlation coefficients with neuroticism and conscientiousness. Authentic living ($r = .34$) was positively correlated with neuroticism, whereas accepting external influence ($r = .50$) and self-alienation ($r = .50$) were both positively correlated with neuroticism. Moreover, authentic living ($r = .34$) was positively correlated with conscientiousness, whereas accepting external influence ($r = .34$) and self-alienation ($r = .29$) were negatively correlated with this trait. In addition, self-alienation was negatively correlated with extraversion ($r = .36$) and agreeableness ($r = .26$).

Multiple regression analyses were also conducted for each of the Big Five scales against authentic living, accepting external influence, and self-alienation (see Table 4). The regression results indicated that the Big Five traits did not explain a significant proportion of the variance in authentic living, but did explain 26% of the variance in both accepting external influence and self-alienation. These results are consistent with those obtained for the original version of the Authenticity Scale. Wood et al. (2008) found that the Big Five traits accounted for small but significant proportions of the variance (11% to 13%) in the three authenticity subscales. Our results also support the conclusions drawn by the authors according to which “authenticity cannot be reduced to a linear combination of the Big Five Traits” (Wood et al., 2008, p. 394).

### Study 2

To confirm both the factorial structure found in Study 1 and that obtained by Wood et al. (2008), a CFA was conducted with a larger sample size.

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**Table 3**

<table>
<thead>
<tr>
<th>Subscales</th>
<th>α</th>
<th>95% CI</th>
<th>Time 1 (n = 188)</th>
<th>Time 2 (n = 114)</th>
<th>Mean change</th>
<th>Stability, $r$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>M    SD</td>
<td>M    SD</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Self-alienation</td>
<td>.76</td>
<td>[.70, .81]</td>
<td>9.07 4.39</td>
<td>9.22 4.89</td>
<td>−1.10</td>
<td>.27</td>
</tr>
<tr>
<td>Authentic living</td>
<td>.73</td>
<td>[.66, .79]</td>
<td>23.78 3.21</td>
<td>23.55 2.65</td>
<td>1.00</td>
<td>.32</td>
</tr>
<tr>
<td>Accepting external influence</td>
<td>.78</td>
<td>[.72, .83]</td>
<td>12.36 4.42</td>
<td>12.57 4.91</td>
<td>−.30</td>
<td>.76</td>
</tr>
</tbody>
</table>

*Note.* The mean alpha values obtained by Wood et al. (2008) across all samples (n = 548) of their Study 2 are indicated in parentheses. CI = confidence interval.  
***$p < .001$.**
Method

Participants and procedure. Four hundred thirty-seven ($N = 437$) university students took part in Study 2 during regular class time. Among them, $168 (38.4\%)$ were undergraduate students in psychology (mean age $= 25.71$ years; $SD = 7.72$), $151 (34.6\%)$ were undergraduate students in counseling (mean age $= 28.18$ years; $SD = 8.65$), and $118 (27\%)$ were managers enrolled in an MBA program (mean age $= 40.39$ years; $SD = 6.78$). Most of the participants were women (71.1%). Participants completed the French version of the Authenticity Scale during a group session held during regular class time.

Measures. Dispositional authenticity was assessed using the French version of the Authenticity Scale presented above. In Study 2, alpha coefficients obtained for self-alienation, authentic living, and accepting external influence were .81, .72, and .81, respectively.

All statistics were calculated using SPSS Advanced Statistics 20 (SPSS Inc. 2011) and AMOS 20 (Arbuckle, 2011) software.

Results and Discussion

Covariance structural modeling was performed using the maximum likelihood model of estimation and a covariance matrix as input. Three latent factors were specified: self-alienation, authentic living, and accepting external influence. Based on the work of Wood et al. (2008), it was also specified that these factors exist under a higher-order authenticity factor.

Preliminary analysis revealed no missing data, but did identify 11 multivariate outliers (detected using the Mahalanobis distance statistic at $p < .001$; Tabachnick & Fidell, 2007). Subsequent analyses were conducted with and without these outliers and, because the results were comparable, it was decided to use the entire sample. This decision was based on the recommendation that outliers “should be retained unless demonstrable proof indicates that they are truly aberrant and not representative of any observations in the population” (Hair, Black, Babin, & Anderson, 2010, p. 642).

The univariate normality of the observations was assessed using skewness and kurtosis values. The univariate skewness (SK) values ranged from $-1.06$ to $1.34$ ($M = .27$), and univariate kurtosis (KU) values ranged from $-71$ to $1.17$ ($M = 0.19$), indicating univariate normality of the scale variables. Usually, absolute skewness values greater than 3.0 are described as extremely skewed (Chou & Bentler, 1995), whereas absolute kurtosis values higher than 10.0 suggest a problem (Kline, 2005). The multivariate normality of the data was assessed using Mardia’s ($M = 1974$) normalized estimate of multivariate kurtosis. The Mardia’s coefficient was 20.66, well above the threshold value of 5, suggesting non-normality of the item distribution (Bentler, 2005). The overall fit of the model to the data was thus assessed using the chi-square test of absolute fit with a bootstrap-based $p$ value (based on 2,000 bootstrap samples) to correct for non-normality of the data distribution (Bollen & Stine, 1992).

As chi-square is sensitive to sample size (Arbuckle, 2011), the following goodness-of-fit indices were also used (McDonald & Ho, 2002): the ratio of $\chi^2$ to degrees of freedom ($\chi^2/df$), the comparative fit index (CFI), the standardized root-mean-square residual (SRMR) and the root-mean-square error of approximation (RMSEA) with upper and lower 90% confidence intervals (CIs).
According to Hu and Bentler (1999), a RMSEA value between 0 and .05 indicates a good fit, whereas a value between .05 and .08 indicates an acceptable fit. The CFI value should be greater than .90 to be considered acceptable and greater than .95 to be considered excellent (Bentler, 1992). An acceptable SRMR value should be less than .08 (Byrne, 2010). A $\chi^2/df$ ratio close to or less than 2 indicates good model fit, and values less than 5 indicate acceptable fit (Watkins, 1989).

The following values were obtained for the fit indices: Bollen-Stine $\chi^2 = 61.26, p = .001$; $\chi^2/df = (120.50)/(51) = 2.36$; CFI = .96; SRMR = .04; and RMSEA = .05, CI [.04; .07]. Although the bootstrap-based $p$ value suggests that the model should be rejected on an absolute basis, all other goodness-of-fit indices suggest otherwise, indicating that the model fits the data fairly well. To test the significance of individual parameters, the standardized regression weights, CIs, and $p$ values were computed using the bias-correction bootstrap method (with 250 bootstrap samples and a 90% confidence level). The standardized regression weights are presented in Figure 1.

In order to better understand the discrepancy between the bootstrap-based $p$ value and the other goodness-of-fit indices, additional analyses were undertaken. First, two alternative models were tested to determine whether they would provide a better fit with the data: (a) a first-order model in which all items loaded on a single authenticity factor and (b) a second-order model in which both authentic living and self-alienation exist under accepting external influence as a higher-order factor. With regards to this last model, Wood et al. (2008) wrote that “introjecting the views of others and accepting external influence affect both feelings of self-alienation and the experience of authentic living” (p. 386). Based on this assumption, it seems reasonable to test whether or not accepting external influence represents a second-order factor.

The values of the fit indices obtained for the first alternative model were as follows: Bollen-Stine $\chi^2 = 63.52, p < .001$; $\chi^2/df = (715.08)/(54) = 13.24$; CFI = .64; SRMR = .11; and RMSEA = .17, CI [.16; .18]. These values suggest that this model fit the data poorly compared with the second-order model presented in Figure 1. For the second alternative model, the values were as follows: Bollen-Stine $\chi^2 = 62.60, p < .001$; $\chi^2/df = (159.98)/(52) = 3.08$; CFI = .94; SRMR = .08; RMSEA = .07, CI [.06; .08]. Although some of these values were acceptable, they were not as satisfactory as those obtained for the model presented in Figure 1.

To further investigate the contradictory results obtained from the bootstrap-based $p$ value and the goodness-of-fit indices, the factorial structure of the scale was also assessed with the Bayesian estimation method. It can be argued that the data of the Authenticity Scale may be treated as either continuous or categorical. According to Byrne (2010), conducting CFA with two approaches (maximum likelihood for continuous data and Bayesian estimation for categorical data) and comparing the resulting regression weights is a way of ensuring the robustness of the structure. In this study, no significant differences were observed between the regression weights obtained using the maximum likelihood and Bayesian estimation methods. Indeed, the mean difference between the regression weights obtained with each method is .01. This result suggests that the factor structure presented in here is valid.

The discrepancy between the Bollen-Stine $p$ value and the descriptive and approximate measures of model fit used in this study is puzzling. On the one hand, the Bollen-Stine test is a robust measure of goodness-of-fit in structural equation modeling that is known not to be sensitive to normal theory constraints. However, Arbuckle (2011) maintains that the Bollen-Stine bootstrap $p$ value is sensitive to sample size. Unfortunately, to our knowledge, there are no guidelines regarding the threshold sample size for which the $p$ value begins to be less reliable. Thus, a possible explanation for the discrepancy found in Study 2 is that the sample size was too large for use of the Bollen-Stine bootstrap $\chi^2$ test statistic.

Taken together, the results of the analyses conducted Study 2 supported the factor structure obtained in Study 1 and suggest that the French version of the authenticity scale is based on a tripartite conception of authenticity. The scale measures three distinct but related dimensions of authenticity, which can also be considered dimensions of an overall authenticity factor. Further studies would be required to determine whether these results are replicable with different populations and in different settings.

**General Discussion**

The aim of the two studies presented in this article was to assess the psychometric properties of a French translation of the 12-item Authenticity Scale developed by Wood et al. (2008). The results show that the translation is reliable, having both good scale score reliability and temporal stability. Although the test–retest reliability coefficients were comparable to those obtained by Wood et al. (2008), we would have expected greater stability over the 8-week period for the authentic living subscale. This raises questions about whether authenticity can be defined only in terms of disposition. According to Wood et al. (2008), authenticity is clearly a trait. However, other researchers maintain that authenticity is an attitude (Harter, 1997; Kernis, 2003; Kernis & Paradise, 2002) or a behavior (Sheldon et al., 1997) that can vary depending on the context. For instance, Kernis (2003) argues that an individual can act “inauthentically” to experience a certain role and still have a strong perception of well-being. This can happen when the real self is incompatible with the environment and the individual must adjust to the requisites of that environment (person–environment fit perspective; Holland, 1959). People adapt to diverse demands and roles by adopting different modes of behavior within different life contexts (Gergen, 1991). Unlike personality traits, attitudes can change with experience. Hence, the stability coefficient obtained for the authentic living subscale in this study suggests that authenticity could be more of an attitude (the evaluation of an object—the self—leading to behavior or a mental predisposition to act in a certain way) than a trait per se. Further research is needed to investigate this question.

The results of these studies also show that, like the original version, the French translation is based on a robust factorial structure. Both EFA and CFA indicated that authenticity comprises three factors: (1) a lack of self-alienation, involving a sense of identity that is consistent with deeply held beliefs, actual feelings,
inherent tendencies and objective reality; (2) authentic living that is in line with this identity, and (3) not accepting external influence when it goes against personal beliefs (Wood et al., 2008). Taken together, these factors explain more than 60% of the variance observed for the French version of the Authenticity Scale, which supports the tripartite person-centered conception of authenticity proposed by Barrett-Lennard (1998).

The correlation coefficients revealed that the authenticity subscales did correlate with the Big Five personality traits (especially neuroticism and conscientiousness) but not to a great extent, which supports the discriminant validity of the instrument. These results are consistent with those of several other studies (Maltby et al., 2012; Pinto et al., 2011; Wood et al., 2008), suggesting that the Authenticity Scale is a unique measure of personality, distinct from the personality models of Cloninger, Svrakic, and Przybeck (1998) and Gray (1982), as well as the Big Five (Costa & McCrae, 1992). The link between authenticity and well-being corroborates other studies that have demonstrated a positive correlation between authenticity and subjective and psychological well-being (Goldman & Kernis, 2002; Ménard & Brunet, 2012; Toor & Ofori, 2009), suggesting that authenticity plays a key role in optimal functioning (Susing et al., 2011; White & Tracey, 2011). The results showed that a three-factor model adequately explained the data from a sample of university students studying in various programs. However, it should be kept in mind that even if all the indices of fit were satisfactory, it would have been impossible to conclude beyond doubt that the retained model was the only one that might fit the data.

In terms of practical applications, this scale should be especially useful for French-speaking practitioners and researchers involved in psychotherapy, counseling, or coaching. Because many therapeutic methods are designed to help clients attain greater authenticity through greater self-knowledge (Bugental, 1980; Yalom, 1980), we believe, like others (Susing et al., 2011; White & Tracey, 2011), that the use of a free, empirically validated instrument intended to measure dispositional authenticity would help to assess that characteristic and develop evidence-based therapeutic interventions. It should also contribute to a better understanding of the psychological processes underpinning the purposeful, positive change that results from effective psychotherapy, counseling, and coaching.

This research had some limitations that should be highlighted. First, we acknowledge that there are limitations to the generalizability of our findings, because of the relatively homogenous sample. Though distinct populations were represented, the samples were comprised mostly of female university students. Replication of this study with random samples, rather than convenience samples, is needed in order to generalize the results to other adult populations such as workers. Second, the correlation design used in our studies does not allow us to make causal inferences. Thus, future studies should use longitudinal designs to determine if authenticity is a causal determinant of well-being.

In spite of these limitations, these findings support both the reliability and the validity of the French adaptation of the Authenticity Scale, providing French-speaking clinicians, counselors, coaches, and researchers with an instrument that adequately measures individual differences in dispositional authenticity.

**Résumé**

Les résultats révèlent que les propriétés psychométriques de la version française de l’Authenticity Scale sont comparables à celles de la version originale en anglais. L’échelle présente à la fois une bonne fiabilité des résultats (α = 0.77 à 0.82) et une stabilité temporelle sur une période de 8 semaines (r = 0.54 à 0.69). Elle repose sur une solution à trois facteurs, expliquant 60 % de la variance. L’échelle présente une validité discriminante en ce qui a trait aux cinq grands traits de personnalité et est reliée au bien-être tant subjectif que psychologique. Cet article fournit un instrument en français qui est valable et fiable pour la mesure de l’authenticité dispositionnelle et émotionnelle.

Mots-clés : échelle d’authenticité, traduction française, bien-être, personnalité.

References


(2008, The authentic personality: A theoretical and empirical conceptualization and the development of the authenticity scale, Journal of Counseling Psychology, 55, 385–399). Dans une première étude (N = 188), ils évaluent la fiabilité de la version traduite ainsi que sa validité conceptuelle et discriminante par rapport aux cinq grands traits de personnalité (« the Big Five »). Dans la deuxième étude (N = 437), ils effectuent une analyse factorielle en vue de confirmer la structure factorielle établie dans l’étude 1 et celle qui a été obtenue par Wood et al. (2008). Les résultats révèlent que les propriétés psychométriques de la version française de l’Authenticity Scale sont comparables à celles de la version originale en anglais. L’échelle présente à la fois une bonne fiabilité des résultats (α = 0.77 à 0.82) et une stabilité temporelle sur une période de 8 semaines (r = 0.54 à 0.69). Elle repose sur une solution à trois facteurs, expliquant 60 % de la variance. L’échelle présente une validité discriminante en ce qui a trait aux cinq grands traits de personnalité et est reliée au bien-être tant subjectif que psychologique. Cet article fournit un instrument en français qui est valable et fiable pour la mesure de l’authenticité dispositionnelle et émotionnelle. Cet article fournit un instrument en français qui est valable et fiable pour la mesure de l’authenticité dispositionnelle et émotionnelle. Cet article fournit un instrument en français qui est valable et fiable pour la mesure de l’authenticité dispositionnelle et émotionnelle. Cet article fournit un instrument en français qui est valable et fiable pour la mesure de l’authenticité dispositionnelle et émotionnelle.


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