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Short Communication

An Italian version of the 10-item Big Five Inventory: An application to hedonic and utilitarian shopping values[☆]



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ABSTRACT

The present research proposes an Italian version of the BFI-10 scale by Rammstedt and John (2007), which was originally developed in both English and German. The results on convergent and concurrent validity confirmed the scale as an effective means for assessing personality dimensions in a limited amount of time. This paper also presents and discusses an application of the scale in the marketing field that shows how the developed scale relates to consumers' tendency towards hedonic and/or utilitarian shopping values.

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1. Introduction

Researchers often need to assess complex psychological constructs in a very short time (Credé & Harms, 2012). To satisfy this aim, scholars have proposed several short measurement scales of human personality, which have the advantages of reducing item redundancy and response time, while alleviating respondents' fatigue, frustration, or boredom derived from answering highly similar questions repeatedly. Although these shorter scales often present acceptable reliability levels, they typically have poorer psychometric properties than longer ones. However, it has been argued that poorer psychometric properties could be tolerated if "brevity represents an unusually high priority" in research (Saucier, 1994, p. 515), as well as when personality is not a central construct to investigate – such as in the marketing field, for example, where consumer personality is usually measured as one of the possible antecedents of purchasing intention.

Following the Big Five approach (for reviews, see Digman, 1990; Goldberg, 1993; McCrae & John, 1992), past research has

investigated the validation of measurement scales designed to assess dimensions of human personality. For a long time, the gold standard for discriminating Big Five dimensions has been the 240-item NEO-PI-R (Costa & McCrae, 1992). Despite its theoretical and psychometric robustness, this approach is hindered by its length and complexity, which has led scholars to propose alternative instruments using a reduced number of items. In particular, the 60-item NEO-FFI (McCrae & Costa, 2004) and the 44-item Big Five Inventory (BFI; John & Srivastava, 1999) have been widely employed in research over the years, as these instruments are able to assess personality more efficiently than the original NEO-PI-R, while still preserving reliability and psychometric adequacy.

Even shorter instruments have recently appeared in the literature. Gosling, Rentfrow, and Swann (2003) proposed the Ten-Item Personality Inventory (TIPI), with two items for each of the five dimensions, as well as the Five-Item Personality Inventory (FIPI), in which each item was defined by two central descriptors and clarified by six other descriptors rated on a seven-point scale. Another five-item scale is the Single-Item Measures of Personality (SIMP) by Woods and Hampson (2005), which uses only one bipolar item for each dimension, rated on a seven-point scale. Compared to the five-item scales, the ten-item scales proposed in the literature appear to achieve efficiency alongside adequate levels of reliability; they also seem to be psychometrically superior, without requiring much more in terms of response time or effort.

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The BFI-10 proposed by Rammstedt and John (2007) is a ten-item scale designed to assess the Big Five dimensions in a very short amount of time. Developed both in English and in German, the BFI-10 appears to be a better alternative to Gosling, Rentfrow, and Swann's (2003) TIPI scale, as it was found by its authors to be psychometrically superior to the latter. The TIPI scale uses two items for each personality dimension, drawing from Goldberg's (1992) 100 unipolar markers as well as John and Srivastava's (1999) 44 best descriptors of the Big Five dimensions. The two items associated with each specific dimension use opposite wording (for example, for the *Extroversion* dimension, the two items are "Conventional, uncreative" versus "Open to new experiences, complex") and are assessed on a seven-point Likert scale ranging from 1 ("Disagree strongly") to 7 ("Agree strongly"). Unlike the TIPI scale, the BFI-10 uses statements representing poles of the same dimension, intending to capture the core aspects of each Big Five dimension (e.g., for the *Emotional stability* dimension, it evaluates how much one "is relaxed, handles stress well" and "gets nervous easily"). Rammstedt and John (2007) scrutinized both the external and internal validity of their instrument by comparing it with the NEO-PI-R scale (Costa & McCrae, 1992). They found acceptable psychometric properties in both the English and German versions, along with the practical advantage that their scale could be completed easily, in one minute or less. Furthermore, the BFI-10 showed a stable five-factor structure, which never clearly emerged for the TIPI scale.

The good psychometric qualities of the BFI-10 scale might motivate international researchers to use this instrument to assess human personality in local contexts. However, in order to apply the scale properly, it is important to translate the individual items according to local languages and cultural contexts. Thus, the aim of the present research is to develop and validate an Italian version of the BFI-10 scale. To begin, the original items were translated into Italian and inserted into a structured questionnaire for data collection and reliability analysis. To scrutinize the convergent validity of this new version of the scale, two other personality scales were included in the questionnaire: namely, an Italian scale composed of 40 pairs of bipolar adjectives that describe human personality, based on Saucier (1994) and Caprara, Barbaranelli, and Borgogni (2000); and an Italian version of Woods and Hampson's (2005) Single-Item Measures of Personality (SIMP), composed of five pairs of markers measured on a seven-point Likert scale.

In order to verify the scale's convergent validity, the Big Five dimensions of personality were assessed with the BFI-10 in a consumer research setting, thus probing the effectiveness of the proposed measurement instrument in different research contexts. Marketing literature has widely recognized the use of personality measures for segmentation purposes (see for a review, Mulyanegara, Tsarenko, & Anderson, 2009) and demonstrated how each of the two meta-dimensions of personality (Digman, 1997) can be associated with a specific value that people pursue during shopping. Specifically, the Big Five dimensions of personality were correlated with respondents' hedonic and/or utilitarian dimensions of consumption, which were measured using an established scale by Babin, Darden, and Griffin (1994). Consumer literature describes the hedonic and/or utilitarian values as the final aims of shopping activities. In particular, *hedonic consumption* captures shopping experiences characterized by emotional and sensorial aspects, in which consumers pursue epicurean and ludic goals (i.e., shopping for fun: e.g., Alba & Williams, 2013; Childers, Carr, Peck, & Carson, 2001; Dhar & Wertenbroch, 2000; Hirschman & Holbrook, 1982); whereas *utilitarian consumption* describes shopping experiences in which consumers make functional and rational purchasing choices (i.e., shopping for needs: e.g., Batra & Ahtola, 1990; Okada, 2005; Voss, Spangenberg, & Grohmann, 2003). Drawing from Mooradian and Oliver's (1997) work on Tauber's (1972))

shopping motives, Guido (2006a, 2006b) empirically showed that *Openness to experience*, *Agreeableness*, and *Extroversion* correlate with the hedonic dimension of consumption, whereas *Emotional stability* and *Conscientiousness* correlate with the utilitarian dimension (see also Guido, Capestro, & Peluso, 2007, 2008). One can therefore expect a similar correlational pattern in this research, which will provide evidence for the convergent validity of the Italian version of the BFI-10 scale.

2. Method

2.1. Participants

A structured questionnaire was administered to a broad sample of 918 subjects: 418 respondents were intercepted online using different channels such as e-mail messages directly sent to potential respondents and popular social networks (e.g., Facebook); another 400 were randomly intercepted in the field, close to shopping malls, and asked to participate in a study regarding consumers' personalities and shopping activity. Of the total, 282 respondents failed to complete all the relevant items assessing the five dimensions of personality as well as the hedonic and utilitarian dimensions of shopping. Therefore, their questionnaires were discarded because of missing values, and the sample was reduced to the 636 respondents (44.7% male, 55.3% female; mean age = 24, standard deviation = 5.17, age range = 18–60) who completed the questionnaire in all its relevant scales. Out of the finalized sample, 300 respondents filled in an online version of the questionnaire, whereas the other 336 respondents filled in a paper-and-pencil version of the same questionnaire.

2.2. Questionnaire

The questionnaire was composed of three parts. The first part consisted of two different sections, the former of which incorporated an Italian version of Rammstedt and John's (2007) BFI-10 scale. The items of this scale were obtained by professionally translating the original items to Italian using the forward-backward method, which allows one to verify the accuracy, clarity, and naturalness of the translation. The latter section included an alternative and longer scale of the Big Five factors, composed of 40 pairs of bipolar adjectives (eight for each dimension of human personality) that were based on Saucier's (1994) research and adapted to the Italian context by Caprara et al. (2000). With each pair of opposing adjectives, respondents used a semantic differential seven-point scale to indicate which of the two adjectives best described their personalities.

The second part of the questionnaire included an Italian version of the five-item scale by Woods and Hampson (2005, SIMP-5), which assesses each Big Five factor by means of contrasting descriptions of personality dimensions, presenting one at each pole of the scale. Thus, respondents were able to make bi-directional choices about each bipolar construct (e.g., for the *Emotional Stability* dimension, they could choose, on a seven-point Likert scale, between two descriptions: "Generally, I come across as: someone is sensitive and excitable, and can be tense" and "Generally, I come across as: someone who is relaxed, unemotional, rarely gets irritated, and seldom feels blue"). This part of the questionnaire also included an Italian version of Babin et al.'s (1994) scale, developed by Guido et al. (2008), which is composed of 15 items assessing the extent to which consumers pursue utilitarian or hedonic values when shopping, using a seven-point Likert scale. The first 11 items assessed the hedonic dimension of shopping behavior, while the other four items measured the utilitarian dimension.

The third and final part of questionnaire was composed of socio-demographic questions, particularly referring to respondents' age and gender.

3. Results

3.1. Factor analysis on BFI-10

The dimensionality of the Italian version of BFI-10 was investigated through a factor analysis. An exploratory factor analysis (principal components method and the Oblimin rotation) was performed on the overall dataset. The results returned a five-factor solution consistent with the Big Five factors, with each item loading the intended factor. The factor loadings connecting individual items with the intended factors are higher than .50, with no cross loading greater than .40. The five pairs of items that properly loaded the five factors showed acceptable levels of internal consistency, which were assessed using the Spearman–Brown coefficients. This type of reliability coefficient performs better than Cronbach's alpha in assessing the internal consistency of two-item subscales (Eisinga, te Grotenhuis, & Pelzer, 2013). In the present study, the Spearman–Brown coefficients were .50 or higher, which were considered acceptable since each subscale of the Italian BFI-10 scale only consisted of two items (Clark & Watson, 1995). To validate the five-factor structure obtained, a confirmatory factor analysis was performed using the maximum likelihood procedure, in which each individual item served as an observed variable that was related to a latent variable indicating the intended personality dimension. The obtained results summarized in Table 1 (Overall Sample column) showed satisfactory fit statistics (Hu & Bentler, 1998), whereas factor loadings were all higher than .50 and significant at .001 level.

To further check the robustness of the five-factor solution obtained, two distinct confirmatory factor analyses were performed on the online subset of data and on the offline subset of data, respectively. The results summarized in Table 1 (Online Sub-sample and Offline Sub-sample columns) revealed acceptable

fit statistics for each sub-sample. The factor loadings obtained for each sub-sample were consistent with those emerged from the overall sample, thus suggesting that the administration mode did not affect the factorial structure of the scale. To provide definitive evidence of the comparability of the factorial structure emerging from the online sub-sample with that emerging from the offline sub-sample, a multi-group confirmatory factor analysis was conducted. In particular, a constrained model, where factor loadings were not allowed to vary across the two sub-samples, was compared against an unconstrained model, where factor loadings were allowed to vary. The two models fit data adequately well (Constrained Model: $\chi^2(55) = 77.078$, $p = .026$; $\chi^2/\text{d.f.} = 1.401$; CFI = .983; NFI = .943; SRMR = .026; Unconstrained Model: $\chi^2(50) = 75.854$, $p = .011$; $\chi^2/\text{d.f.} = 1.517$; CFI = .980; NFI = .944; SRMR = .025). More importantly, the χ^2 difference test was not significant ($\Delta\chi^2(5) = 1.224$, $p = .943$), suggesting that the five-factor structure of the Italian version of the BFI-10 scale was invariant across the two sub-samples associated with the two administration modes. A pairwise comparison test confirmed that the factor loadings connecting individual items to the intended factors did not vary in magnitude across the two sub-samples ($ps > .05$).

3.2. Convergent validity

Convergent validity was scrutinized by means of a correlation between each of the Big Five factors assessed with the BFI-10 scale and the same factors measured with the 40-item scale by Caprara et al. (2000) and with the SIMP-5 scale by Woods and Hampson (2005). The 40-item scale was first checked for dimensionality using a factor analysis (principal components method and the Oblimin rotation). Results showed that individual items loaded the intended factors, thus confirming the internal consistency of the scale. In particular, factor loadings were: for *Agreeableness*, Unkind/Kind = .77, Harsh/Affectionate = .77, False/Sincere = .70, Cold/Warm = .68, Dishonest/Honest = .66, Hostile/Friendly = .65, Unpleasant/Pleasant = .64, Stingy/Generous = .62; for *Emotional stability*, Anxious/Relaxed = .83, Nervous/Quiet = .82, Fragile/Solid = .77, Emotionally

Table 1
Results of confirmatory factor analyses.

Factor/Item (Italian translation) (I see myself as someone who...)	Factor Loading		
	Overall Sample (N = 636)	Online Sub-sample (n = 300)	Offline Sub-sample (n = 336)
Factor 1: Agreeableness			
... tends to find fault with others (<i>tende a trovare i difetti negli altri</i>) ^R	.51	.53	.49
... is generally trusting (<i>generalmente si fida</i>)	.71	.75	.68
Factor 2: Conscientiousness			
... tends to be lazy (<i>tende a essere pigra</i>) ^R	.56	.61	.50
... does a thorough job (<i>è coscienziosa al lavoro</i>)	.65	.68	.61
Factor 3: Emotional stability			
... is relaxed, handles stress very well (<i>è rilassata, sopporta lo stress</i>)	.67	.68	.64
... get nervous easily (<i>si agita facilmente</i>) ^R	.72	.76	.70
Factor 4: Extroversion			
... is reserved (<i>è riservata</i>) ^R	.60	.62	.59
... is outgoing, sociable (<i>è spigliata, socievole</i>)	.77	.76	.79
Factor 5: Openness			
... has few artistic interests (<i>ha pochi interessi artistici</i>) ^R	.56	.55	.58
... has an active imagination (<i>ha una fervida immaginazione</i>)	.57	.63	.52
Fit statistics			
χ^2	51.652	52.426	23.428
d.f.	25	25	25
p-Value	.001	.001	.553
$\chi^2/\text{d.f.}$	2.066	2.097	.937
CFI	.979	.960	1.000
NFI	.961	.928	.963
SRMR	.027	.038	.025

Note: The Italian version of the BFI-10 scale is reported in parenthesis. R = Item is reverse scored. Factor loadings are significant at .001 level. CFI = Comparative Fit Index; NFI = Normed Fit Index; SRMR = Standardized Root Mean Square Residual.

unstable/Emotionally stable = .77, Unsure/Secure = .75, Insensible/Sensible = .73, Loud/Calm = .72, Impulsive/Controlled = .63; for *Openness*, Conservative/Progressive = .85, Conformist/Rebel = .75, Old/New = .70, Unoriginal/Original = .65, Ordinary/Extravagant = .64, Outdated/Forward-looking = .61, Ancient/Modern = .59, Coarse/Fashionable = .52; for *Conscientiousness*, Careless/Careful = .82, Imprudent/Prudent = .75, Untidy/Tidy = .73, Irregular/Regular = .70, Foolish/Provident = .70, Shabby/Neat = .69, Impatient/Patient = .63, Untrustworthy/Trustworthy = .63; for *Extroversion*, Undetermined/Determined = .87, Weak/Strong = .78, Thoughtless/Thoughtful = .67, Feeble/Energetic = .61, Uncompetitive/Competitive = .60, Jaded/Lively = .50, Sad/Cheerful = .50, Boring/Enjoyable = .44. Cross loadings were lower than .35. The 40-item scale of personality showed an adequate level of reliability at the dimensional level (Cronbach's α coefficients > .90).

The results of a correlation analysis, summarized in Table 2, confirmed that personality factors assessed with the Italian BFI-10 scale significantly correlate with the corresponding factors measured by both the 40-item scale and the SIMP (5-item) scale. Despite the SIMP scale and the 40-item scale correlating properly, their correlation coefficients were lower compared to those obtained using the BFI-10 scale. For example, the correlation between the *Agreeableness* dimension assessed using the Italian BFI-10 and the *Agreeableness* dimension assessed using the 40-item Big Five scale is .63, but the same correlation falls to .38 when *Agreeableness* is assessed using the 5-item scale rather than the BFI-10. A similar pattern of correlations is also observable for the other four personality dimensions.

3.3. Concurrent validity

Concurrent validity was scrutinized through a correlation between each of the Big Five factors assessed with the BFI-10 and the hedonic and utilitarian shopping dimensions assessed using Babin et al.'s (1994) scale. Since past studies (Guido, 2006a, 2006b; Guido et al., 2007, 2008) have shown an association between these two dimensions of shopping and the Big Five factors

Table 3

Rotated component matrix of the hedonic and utilitarian dimensions.

Item	Factor loading	
	F1	F2
Compared to other things I could do, the time I spend shopping is truly enjoyable	.86	.10
While shopping I feel a sense of adventure	.84	.13
My shopping trips are a very nice time out	.84	-.01
I enjoy being immersed in exciting new products	.82	.07
During the trip, I usually feel the excitement of the hunt	.81	.07
My shopping trips truly feel like an escape	.78	-.14
I enjoy shopping trips for their own sake, not just for the items I may purchase	.77	-.08
While shopping, I am able to forget my problems	.76	-.06
My shopping trips are truly a joy	.67	-.13
I have a good time because I am able to act on the 'spur-of-the-moment	.52	-.13
I continue to shop, not because I have to, but because I want to	.47	.10
I can buy what I really need	.04	.91
I accomplish just what I want to on my shopping trips	.04	.90
While shopping, I find just the item(s) I am looking for	-.04	.88
I am disappointed if I have to go to another store(s) to complete my shopping	-.05	.62

Note: N = 636. F1 = Hedonic dimension; F2 = Utilitarian dimension. Factor loadings connecting individual items to the intended factors are reported in bold.

of personality, correlations achieved via the Italian BFI-10 should provide further evidence of the scale's validity.

Babin et al.'s (1994) scale was first checked for dimensionality with a factor analysis (principal components method and the Oblimin rotation). The results summarized in Table 3 confirmed that the scale is bi-dimensional, with one factor representing the hedonic dimension of shopping and the other representing the utilitarian one.

A correlational analysis was performed between the Big Five factors—assessed with the BFI-10, the 40-item scale, and the SIMP-5—from one side, and the hedonic and utilitarian dimensions

Table 2

Descriptive statistics and Pearson correlations among the Italian BFI-10, SIMP-5, the 40-item Big Five scales and shopping values.

Variable	AG10	CO10	ES10	EX10	OP10	AG40	CO40	ES40	EX40	OP40	AG5	CO5	ES5	EX5	OP5	HED	UTI
AG10	1																
CO10	-.41	1															
ES10	-.39	.46	1														
EX10	.42	-.41	-.34	1													
OP10	.34	-.35	-.37	.39	1												
AG40	.63	-.56	-.53	.50	.42	1											
CO40	-.53	.67	.50	-.50	-.45	-.70	1										
ES40	-.51	.49	.60	-.45	-.45	-.62	.68	1									
EX40	.52	-.53	-.50	.58	.44	.76	-.68	-.60	1								
OP40	.46	-.52	-.43	.47	.59	.68	-.62	-.56	.71	1							
AG5	.56	-.25	-.20	.28	.17	.38	-.35	-.32	.35	.26	1						
CO5	-.35	.62	.34	-.30	-.33	-.51	.61	.38	-.47	-.42	-.23	1					
ES5	-.33	.35	.70	-.29	-.32	-.43	.42	.44	-.39	-.37	-.20	.29	1				
EX5	.31	-.34	-.32	.57	.25	.38	.39	-.34	.43	.37	.23	-.25	-.23	1			
OP5	.31	-.35	-.31	.36	.62	.39	-.40	-.37	.39	.42	.21	-.35	-.33	.28	1		
HED	.30	-.35	-.32	.30	.24	.44	-.42	-.36	.42	.35	.22	-.26	-.23	.30	.24	1	
UTI	-.43	.47	.40	-.44	-.34	-.58	.57	.53	-.56	-.54	-.29	.38	.34	-.32	-.29	-.53	1
Mean	4.35	4.26	4.02	4.50	4.57	4.93	4.04	3.98	4.86	4.84	4.22	4.01	3.85	4.39	4.63	3.34	4.08
SD	1.23	1.43	1.46	1.34	1.39	1.29	1.30	1.30	1.25	1.22	1.49	1.57	1.63	1.67	1.58	1.50	1.66

Note: N = 636. *All correlations are significant at .001 level. AG10 = *Agreeableness* assessed using the Italian BFI-10 scale; CO10 = *Conscientiousness* assessed using the Italian BFI-10 scale; ES10 = *Emotional stability* assessed using the Italian BFI-10 scale; EX10 = *Extroversion* assessed using the Italian BFI-10 scale; OP10 = *Openness* assessed using the Italian BFI-10 scale; AG40 = *Agreeableness* assessed using the 40-item Big Five scale; CO40 = *Conscientiousness* assessed using the 40-item Big Five scale; ES40 = *Emotional stability* assessed using the 40-item Big Five scale; EX40 = *Extroversion* assessed using the 40-item Big Five scale; OP40 = *Openness* assessed using the 40-item Big Five scale; AG5 = *Agreeableness* assessed using the SIMP-5 scale; CO5 = *Conscientiousness* assessed using the SIMP-5 scale; ES5 = *Emotional stability* assessed using the SIMP-5 scale; EX5 = *Extroversion* assessed using the SIMP-5 scale; OP5 = *Openness* assessed using the SIMP-5 scale. HED = Hedonic dimension of shopping; UTI = Utilitarian dimension of shopping.

of consumption—as measured with Babin et al.'s (1994) scale—from the other side. The results summarized in Table 2 confirm, for both the Italian BFI-10 and SIMP-5 scales, the relationships between the Big Five factors and the hedonic and utilitarian shopping values. Consistent with Guido (2006a, 2006b) and Guido et al.'s (2007, 2008) findings in marketing literature, the *hedonic dimension* is positively correlated with *Agreeableness*, *Extroversion*, and *Openness* and negatively correlated with *Conscientiousness* and *Emotional stability*. In contrast, the *utilitarian dimension* is negatively correlated with *Agreeableness*, *Extroversion*, and *Openness* and positively correlated with *Conscientiousness* and *Emotional stability*.

4. General discussion

The present research validates an Italian version of the BFI-10 scale, which was originally developed in English and German by Rammstedt and John (2007). This study verified the internal consistency of the 10-item scale, as well as its convergent and concurrent validity.

In particular, a factor analysis confirmed the internal consistency of the scale by revealing a five-dimensional structure, which never clearly emerged in other short scales. A correlational analysis verified the convergent validity by showing that the Big Five dimensions of personality measured by the proposed scale are consistently associated with the same dimensions assessed through the bipolar 40-item scale by Caprara et al. (2000) and the SIMP-5 by Woods and Hampson (2005). The obtained results showed that, considering the 40-item Italian scale as a standard of reference, the Italian version of the BFI-10 scale has a higher convergent validity and performs better than the five-item scale. Therefore, when response time is crucial and personality is not the central topic under investigation, the Italian version of Rammstedt and John's (2007) BFI-10 could be useful.

The new scale's concurrent validity was also scrutinized by correlating the Big Five factors of personality assessed using this version of the BFI-10 with the hedonic and utilitarian dimensions of shopping, as evaluated through Babin et al.'s (1994) scale. The results replicated the relationships obtained in previous studies (Guido, 2006a, 2006b; Guido et al., 2007, 2008; Mooradian & Olver, 1997), thereby confirming that consumer personality have a significant influence on shopping behavior.

These findings have remarkable implications for both theory and practice. Theoretically, the BFI-10 allows researchers to more easily investigate relations between the Big Five factors and other constructs. The BFI-10 could be efficiently adopted in online surveys where respondents tend to lose interest quickly and either may not answer properly at later stages of the questionnaire or may abandon the questionnaire halfway thorough. For this reason, this scale could be included in those marketing studies that ask respondents to complete a large set of questions (cf. Bosnjak, Galesic, & Tuten, 2007). Operationally, the BFI-10 has the potential to become a crucial tool in psychology and marketing research, specifically in surveys and online studies where short response time increases data quality and respondents' acceptance. In particular, marketers could adopt this scale in order to quickly classify customers based on their personality characteristics, and from there customize products and marketing messages accordingly. Marketers might also use the personality construct as a metaphor (Aaker, 1997; Caprara, Barbaranelli, & Guido, 2001) for the purpose of assessing the image of their brands. Finally, it would be valuable to administer the BFI-10 in different countries and languages, other than Italian, English and German, in order to improve the interpretation and significance of results.

Appendix A

Italian version of the BFI-10 scale.

Italian version of the BFI-10 scale					
Mi vedo come una persona che...	Per niente d'accordo				Del tutto d'accordo
1. ... è riservata	1	2	3	4	5
2. ... generalmente si fida	1	2	3	4	5
3. ... tende a essere pigra	1	2	3	4	5
4. ... è rilassata, sopporta bene lo stress	1	2	3	4	5
5. ... ha pochi interessi artistici	1	2	3	4	5
6. ... è spigliata, socievole	1	2	3	4	5
7. ... tende a trovare i difetti negli altri	1	2	3	4	5
8. ... è coscienziosa nel lavoro	1	2	3	4	5
9. ... si agita facilmente	1	2	3	4	5
10. ... ha una fervida immaginazione	1	2	3	4	5

Scoring of the Italian BFI-10: *Agreeableness*: 2, 7 (reverse scored item); *Conscientiousness*: 3 (reverse scored item), 8; *Emotional stability*: 4, 9 (reverse scored item); *Extroversion*: 1 (reverse scored item), 6; *Openness*: 5 (reverse scored item), 10.

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