



Short and extra-short forms of the Big Five Inventory–2: The BFI-2-S and BFI-2-XS



Christopher J. Soto^{a,*}, Oliver P. John^b

^a Department of Psychology, Colby College, United States

^b Department of Psychology, University of California, Berkeley, United States

ARTICLE INFO

Article history:

Received 12 September 2016

Revised 13 January 2017

Accepted 22 February 2017

Available online 24 February 2017

Keywords:

Big Five

Five-factor model

Facets

Personality measurement

Short measures

ABSTRACT

The Big Five Inventory–2 (BFI-2) uses 60 items to hierarchically assess the Big Five personality domains and 15 more-specific facet traits. The present research develops two abbreviated forms of the BFI-2—the 30-item BFI-2-S and the 15-item BFI-2-XS—and then examines their measurement properties. At the level of the Big Five domains, we find that the BFI-2-S and BFI-2-XS retain much of the full measure's reliability and validity. At the facet level, we find that the BFI-2-S may be useful for examining facet traits in reasonably large samples, whereas the BFI-2-XS should not be used to assess facets. Finally, we discuss some key tradeoffs to consider when deciding whether to administer an abbreviated form instead of the full BFI-2.

© 2017 Elsevier Inc. All rights reserved.

1. Introduction

1.1. The BFI-2-S and BFI-2-XS: Short and extra-short forms of the Big Five Inventory–2

Individual differences in people's characteristic patterns of thinking, feeling, and behaving can be organized in terms of the Big Five personality trait domains (Goldberg, 1993; John, Naumann, & Soto, 2008; McCrae & Costa, 2008). Moreover, these five broad domains can be conceptualized hierarchically, with each domain subsuming several more-specific facet traits (DeYoung, Quilty, & Peterson, 2007; McCrae & Costa, 2010; Roberts, Chernyshenko, Stark, & Goldberg, 2005). The Big Five Inventory–2 (BFI-2; Soto & John, in press) is a 60-item questionnaire that operationalizes this hierarchical conceptualization of personality structure by assessing the Big Five domains and 15 facets: Extraversion (with facets of Sociability, Assertiveness, and Energy Level), Agreeableness (Compassion, Respectfulness, and Trust), Conscientiousness (Organization, Productiveness, and Responsibility), Negative Emotionality (Anxiety, Depression, and Emotional Volatility), and Open-Mindedness (Intellectual Curiosity, Aesthetic Sensitivity, and Creative Imagination). The present research was conducted to (a) develop a 30-item short form (the BFI-2-S) and a 15-item

extra-short form (the BFI-2-XS) of the BFI-2, (b) examine the extent to which these short forms retain the reliability and validity of the full BFI-2, and (c) test whether the BFI-2 short forms should only be used to assess personality at the level of the Big Five domains, or whether they are also appropriate for examining facet-level traits.

1.2. The Big Five Inventory–2 and the need for short forms

The BFI-2 has some important psychometric strengths. First, it has a conceptually coherent and empirically robust hierarchical structure, with three facets nested within each Big Five domain (Soto & John, in press). This hierarchical measurement model helps address the bandwidth-fidelity tradeoff: the phenomenon that broadly defined traits tend to predict a wider range of criteria, whereas narrowly defined traits tend to predict closely aligned criteria more accurately (Cronbach & Gleser, 1957; John, Hampson, & Goldberg, 1991). By balancing descriptive breadth at the domain level with specificity at the facet level, the BFI-2's hierarchical structure enhances its power to accurately predict a wide range of external criteria (Soto & John, in press).

Second, the BFI-2 effectively minimizes the influence of acquiescent responding: the tendency of some individuals to consistently agree (yea-saying) or disagree (nay-saying) with items regardless of their content (Jackson & Messick, 1958). Uncontrolled individual differences in acquiescence can bias the results of analyses conducted at both the scale and item levels; for example, they can distort a measure's factor structure (Rammstedt & Farmer,

* Corresponding author at: Department of Psychology, Colby College, 5550 Mayflower Hill, Waterville, ME 04901, United States.

E-mail address: christopher.soto@colby.edu (C.J. Soto).

2013; Soto, John, Gosling, & Potter, 2008) and associations with external criteria (Danner, Aichholzer, & Rammstedt, 2015). By including an equal number of true-keyed and false-keyed items on each domain and facet scale, the BFI-2 automatically controls individual differences in acquiescence at the scale level. This balanced item content also allows researchers to easily control acquiescence in item-level analyses, either by estimating latent variable models that include an acquiescence method factor (e.g., Aichholzer, 2014; Soto & John, in press), or through simple within-person centering: subtracting an individual's overall mean response across the full set of 60 BFI-2 items from each of their individual item responses. (However, note that within-person centering can sometimes introduce other psychometric problems; Baron, 1996.)

Third, the BFI-2 is easy to understand. Its items are short phrases that elaborate on a trait-descriptive adjective (e.g., persistent) by adding a synonym, definition, or context (e.g., "Is persistent, works until the task is finished."). These phrased items retain the simplicity and brevity of adjective ratings, while addressing the limitation that individual trait adjectives often have ambiguous or multiple meanings (Goldberg & Kilkowski, 1985). Finally, the BFI-2 is efficient. Its 60 items can be completed in approximately 5–10 min, whereas many broadband personality measures include hundreds of items and can take an hour or more to administer.

The full BFI-2's reasonably short completion time makes it appropriate for many basic and applied research contexts. However, there are some circumstances in which administering the full set of 60 items may not be feasible, and an even shorter measure is needed. For example, some large-scale surveys—such as the British Household Panel Survey (Taylor, Brice, Buck, & Prentice-Lane, 2010), the German Socio-Economic Panel study (Wagner, Frick, & Schupp, 2007), and the Household Income and Labour Dynamics in Australia survey (Summerfield et al., 2015)—are designed to measure many dozens of personal and environmental characteristics as efficiently as possible. When assessing each participant, such surveys may only be able to devote a minute or two to assessing personality traits. Another circumstance concerns within-subjects designs that ask participants to complete the same personality measure multiple times. For example, a single participant may be asked to rate their own personality in several different contexts (Wood & Roberts, 2006), or to rate several other participants in a round-robin design (Srivastava, Guglielmo, & Beer, 2010). In such situations, very brief measures may be needed to prevent participant fatigue, frustration, and careless responding. Finally, some laboratory studies may wish to briefly assess personality traits while still reserving as much time as possible for experimental manipulations and direct behavioral observation.

1.3. A bottom-up strategy for developing the BFI-2 short forms

Given their possible value and most likely uses, we developed the BFI-2-S and BFI-2-XS with two key goals in mind. First, we wanted the short forms to coherently assess each Big Five domain and clearly differentiate between the domains, thereby retaining the BFI-2's clear Big Five structure. Second, we also wanted the short forms to adequately represent each domain's considerable bandwidth—rather than narrowing the range of personality content assessed—in order to maintain the BFI-2's descriptive and predictive breadth. To help balance these two goals, we used a bottom-up approach to scale construction organized around the 15 BFI-2 facets. Specifically, we constructed the BFI-2-XS by selecting a single item to represent each facet, and then constructed the BFI-2-S by adding a second item per facet.

Because the BFI-2 facets have a clear Big Five structure (Soto & John, in press), we expected that this strategy would provide the

short forms with a similarly robust domain-level structure. And because same-domain BFI-2 facets can be meaningfully distinguished from each other (Soto & John, in press), we also expected that this strategy would preserve a suitably broad range of content within each domain. Furthermore, selecting an item set that equally represents each BFI-2 facet within the Big Five domains raises the possibility that the short forms, like the full measure, might prove useful for assessing personality traits hierarchically. While validating the BFI-2-S and BFI-2-XS, we therefore investigated whether these short forms should only be used to assess the Big Five domains, or whether they are also appropriate for examining facet-level traits.

Despite its strengths, we expected that our bottom-up approach to constructing the BFI-2 short forms would also have some drawbacks. Perhaps most notably, compared with alternative strategies focused on maximizing internal consistency within each Big Five domain (e.g., by selecting items with especially high content overlap, high inter-item correlations, or high domain-level factor loadings), we expected that representing each BFI-2 facet equally might result in relatively low internal consistency reliability for some of the six-item BFI-2-S and (especially) three-item BFI-2-XS domain scales. However, reviews of the psychometric literature have noted that content breadth is generally more important than internal consistency for enhancing the validity of brief measures (Smith, McCarthy, & Anderson, 2000; see also John & Soto, 2007; Stanton, Sinar, Balzer, & Smith, 2002). Thus, prioritizing content validity over internal consistency should help the BFI-2 short forms retain as much of the full measure's validity as possible (cf. Gosling, Rentfrow, & Swann, 2003; Rammstedt & John, 2007).

1.4. Overview of the present research

In sum, the present research was conducted to develop two short forms of the BFI-2—the 30-item BFI-2-S and the 15-item BFI-2-XS—and to address two key research questions. First, to what extent do the BFI-2 short forms retain the reliability and validity of the full measure? Second, is it appropriate to use the BFI-2 short forms as hierarchical personality measures? In other words, should the BFI-2-S and BFI-2-XS only be used to assess personality at the level of the Big Five domains, or are they also appropriate for examining facet-level traits?

2. Study 1

Study 1 had two main goals. The first was to select items for the BFI-2-S and BFI-2-XS, using a joint rational-empirical approach to scale construction. The second was to examine the two short forms' basic measurement properties, using data from three samples. Ideally, the short forms would converge strongly with the full BFI-2 domain scales, demonstrate adequate reliability, and retain a clear Big Five structure.

2.1. Method

2.1.1. Participants and procedure

Study 1 analyzed data from three item selection samples: an Internet sample, a university sample, and a college sample. As described below, data from some of these participants were previously analyzed to validate the full BFI-2 (Soto & John, in press, Study 3). However, none of the present data overlapped with those used to select items for the full measure (Soto & John, in press, Study 2).

2.1.1.1. Internet selection sample. Participants in this sample were 1000 adult visitors to a personality test website (50% male, 50%

Download English Version:

<https://daneshyari.com/en/article/5046179>

Download Persian Version:

<https://daneshyari.com/article/5046179>

[Daneshyari.com](https://daneshyari.com)