Cross-cultural validation of the positivity-scale in five European countries

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ABSTRACT

The aim of the present paper was to test the cross-cultural validity of the Positivity-Scale (P-Scale), a new questionnaire designed for the measurement of positivity (i.e., general tendency to evaluate self, life, and future in a positive way). Participants (N = 3544) from Italy, Germany, Spain, Poland, and Serbia answered eight items of the P-Scale and responded to items from other well-validated measures. Confirmatory Factor Analysis supported the assumed one-factor structure of the P-Scale and demonstrated its gender invariance in each country and cross-cultural validity. Correlation analyses revealed significant and positive associations of the P-Scale with self-esteem, life satisfaction, optimism, and a latent factor variable of positivity, and a negative relation to depression. The findings provided support for the convergent validity of the P-Scale across countries. Possible applications of the P-Scale are suggested. Implications for further research on conditions and outcomes of positivity in different cultural contexts are discussed.

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1. Introduction

Numerous studies revealed highly significant and positive interrelations among self-esteem, life satisfaction, and optimism, constructs that are uniquely associated with positive outcomes in various life domains (e.g., health, academic success; Baumeister, Campbell, Krueger, & Vohs, 2003; Diener & Diener, 1995; Lyubomirsky, King, & Diener, 2005; Nes & Segerstrom, 2006; Scheier, Carver, & Bridges, 1994). Past research focused on unique associations of self-esteem, life satisfaction, and optimism to life outcomes. However, a growing body of research has shown that a trait like dimension (i.e., positivity; hereinafter referred to as POS) is underlying individuals' evaluations towards self, life, and future (Caprara & Steca, 2005, 2006; Caprara, Steca, Alessandri, Abela, & McWhinnie, 2010; Caprara et al., 2009) and uniquely contributes to optimal functioning (Alessandri, Caprara, & Tisak, 2012b). Individuals high in POS tend to evaluate their lives as positive, have optimistic future expectations and a positive view of

their self-worth (Caprara et al., 2009; Caprara, Alessandri, & Eisenberg, et al., 2012a; Caprara, Alessandri, & Trommsdorff, et al., 2012b). Nevertheless, research on the cross-cultural validity of measures to assess POS is scarce. The investigation of individual differences across cultures is important to corroborate the generalizability and validity of a personality construct (Heine & Buchtel, 2009). Therefore, the aim of the present study was to investigate the cross-cultural invariance of a newly developed measure to assess POS (i.e., Positivity-Scale; hereinafter referred to as P-Scale).

1.1. Positivity

Taking a person-centered approach to optimal human functioning, POS represents a core dimension "that significantly affects how individuals predispose themselves to actions and experiences" (Caprara, Alessandri, & Trommsdorff, et al., 2012b, p. 77). This approach views individuals as agents who significantly contribute to chart the course of their life and accordingly focuses on their potentials and strengths. Accordingly, past research has shown that positive self-evaluations (i.e., self-esteem), positive attitudes toward life (i.e., life satisfaction), and optimism are associated with self-confidence and aspirations conducive to success in different life domains (Lyubomirsky et al., 2005). For instance, optimistic

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individuals continuously engage in efforts for goal achievement (Nes & Segerstrom, 2006), because future-oriented thinking is strongly associated with internal control beliefs (Trommsdorff, 1994). Moreover, the buffering effects of self-esteem help to overcome negative consequences of failure and increase sustained effort (Heimpel, Wood, Marshall, & Brown, 2002).

In recent research, latent variable models of *POS* were estimated with measures of life satisfaction (Diener, Emmons, Larsen, & Griffin, 1985), self-esteem (Rosenberg, 1965), and optimism (Scheier & Carver, 1987) as indicators. Higher order confirmatory factor analyses supported the assumption that life satisfaction, self-esteem, and optimism are the core features of a trait-like construct that was labeled first *positive thinking* (Caprara & Steca, 2005, 2006) and later *positive orientation* (Caprara et al., 2009) or *POS* (Caprara, Alessandri, & Eisenberg, et al., 2012a). Twin studies provided further evidence on this point, by showing that genetic factors contributed to explain a substantial amount of *POS*' variance (Caprara et al., 2009). Despite cultural differences in the means of the dimensions of *POS*, findings attested to the cross-cultural stability of a common factor structure across Western (i.e., Italy, Canada, Germany) and Asian (i.e., Japan) samples (Caprara et al., 2010; Caprara, Alessandri, & Trommsdorff, et al., 2012b).

Longitudinal studies have shown that *POS* is stable through adolescence and into adulthood and positively associated to indicators of successful adjustment across domains of functioning. In contrast, *POS* was negatively associated with negative affect (Alessandri, Caprara, & Tisak, 2012a). Most notably, the latent variable *POS* explained additional variance over and above what was explained by the indicator variables (i.e., self-esteem, life satisfaction, optimism) alone (Alessandri et al., 2012b; Caprara et al., 2010).

However, the approach to asses *POS* as a latent variable is not without limitations. In lack of a suitable measure *POS* has been assessed indirectly with a large number of items from instruments originally designed to assess other constructs than *POS*. In order to account for these limitations a new scale was developed to assess *POS* as a unique construct, the *P-Scale* (Caprara, Alessandri, & Eisenberg, et al., 2012a). Based on an initial item pool of 36 items assessing aspects of *POS* exploratory and confirmatory factor analyses were computed. This procedure yielded an 8-item scale. Further studies attested to good convergent and discriminant validity, temporal stability, and to cross-cultural invariance. Moreover, the *P-Scale* was positively associated with emotional stability and negatively related to depression (Caprara, Alessandri, & Eisenberg, et al., 2012a).

1.2. Study aims

The aim of the present study was to investigate cross-cultural invariance of the *P-Scale* across Italy, Germany, Spain, Poland, and Serbia. These countries differ with regard to prevailing living conditions (Böhnke, 2008; European Bank for Reconstruction, 2011; Organisation for Economic Co-operation, 2011) and value orientations (Schwartz & Bardi, 1997). However, we did not expect that countries' differences in socioeconomic and political conditions would have any impact on the validity and factor structure of the scale. Indeed, correlations of the core dimensions of *POS* at the individual level were rather robust against influences of the socio-cultural context in previous studies (Caprara et al., 2010; Caprara, Alessandri, & Trommsdorff, et al., 2012b).

We addressed the scale's construct validity by examining the associations of the *P-Scale* with self-esteem, life satisfaction, optimism, depression, and *POS* computed as a factor score derived from self-esteem, life satisfaction, optimism. We expected that the *P-Scale* would be positively related to self-esteem, life satisfaction,

and optimism and negatively associated with depression (Caprara, Alessandri, & Eisenberg, et al., 2012a). Although previous studies did not reveal any impact of gender on the structural validity of the *P-Scale*, the cross-gender invariance of the *P-Scale* was tested to further corroborate this result (Alessandri et al., 2012a; Caprara, Caprara, & Steca, 2003).

2. Method

2.1. Participants

The Italian participants were college students (690 women, 534 men) ranging in age from 19 to 39 years ($M = 23.66$, $SD = 3.80$). German participants were college students (118 men, 202 women), ranging in age from 18 to 29 years ($M = 21.31$, $SD = 1.49$). Polish participants were college students (354 women, 345 men), ranging in age from 18 to 35 years ($M = 21.55$, $SD = 2.13$). Participants from Serbia (501 men, 509 women) were between 19 and 79 years old ($M = 42.03$, $SD = 14.16$). Spanish participants were college students (151 men, 189 women), ranging in age from 18 to 31 years ($M = 27.11$, $SD = 5.13$).

2.2. Procedure

In Italy, Spain, Poland, and Germany participants were recruited from university courses. Italian, Spanish, Polish and Serbian participants did not receive credit points or any other gratification for their participation. For compensation, German participants could participate in a lottery of vouchers worth 10 Euros or receive course credit. Serbian participants were recruited by students and answered questionnaires individually at their homes.

2.3. Instruments

All participants answered the *P-Scale*. Moreover, country-specific versions of each instrument (see below) were administered in order to assess self-esteem, life satisfaction, optimism, and depression respectively. Data on the Self-Esteem Scale, the Satisfaction with Life Scale (SWLS), the Life Orientation Test (LOT–R), and the Center for Epidemiologic Studies Depression Scale (CES–D) were not available for the Polish sample because data collection was part of a larger study on students' career plans.

The P-Scale. The *P-Scale* has been introduced by Caprara, Alessandri, and Eisenberg, et al. (2012a) as a direct measure of *POS*. Participants answered eight items on a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*) (see Appendix; Cronbach's αs: .81 [Italy], .85. [Germany], 77, [Poland], .81, [Serbia], 89. [Spain]). The Italian, Spanish and Polish versions of the *P-Scale* were available from previous studies (Caprara, Alessandri, & Eisenberg, et al., 2012a; Łaguna, Oleś, & Filipiuk, 2011). In Germany and Serbia, the *P-Scale* items were translated and back translated to ensure cultural appropriateness and accuracy.

Self-esteem. Eight items (two were taken out due to content overlapping with those from the *P-Scale*), were used from the specific cultural adaptations of the original Rosenberg (1965) Self-Esteem Scale (Caprara, Alessandri, & Trommsdorff, et al., 2012b; Collani & Herzberg, 2003; Martín-Albo, Núñez, Navarro, & Grijalvo, 2007; Opačić, 1993) (Cronbach's αs: .89 [Italy], .86. [Germany], .81, [Serbia], .80. [Spain]).

Life satisfaction. Four items (one was taken out due to content overlapping with those from the *P-Scale*) were used from previously validated cultural adaptations of the original SWLS (Atienza, Balaguer, & Garcia-Merita, 2000; Caprara, Alessandri, & Trommsdorff, et al., 2012b; Sölva, Baumann, & Lettner, 1995;