
The Self-Reflection and Insight Scale Versione Italiana

Primo studio sulle proprietà psicometriche

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Sommario

La Self-Reflection and Insight Scale (SRIS) è uno strumento self-report ampiamente utilizzato e sviluppato per valutare la self-reflection e l'insight seguendo una prospettiva metacognitiva. La presente ricerca si propone di studiare le proprietà psicometriche del SRIS in 112 studenti universitari in Toscana (Centro Italia). Abbiamo condotto un'analisi fattoriale esplorativa estraendo i fattori tramite la Horn's Parallel Analysis. L'affidabilità è stata valutata tramite l'alfa di Cronbach e la validità convergente è stata misurata con la flourishing scale (FS) and the Resistance to Change Scale (RCS). I risultati hanno mostrato che una struttura a due fattori si adattava bene ai dati con un'affidabilità soddisfacente. Un fattore rifletteva la self-reflection e il secondo rifletteva l'insight. Sia SRIS self-reflection che SRIS insight hanno mostrato correlazioni positive con FS. La dimensione SRIS self-reflection non ha mostrato alcuna associazione con RCS, mentre la dimensione SRIS insight ha mostrato correlazioni negative con RCS. Pertanto, la SRIS ha mostrato una buona validità convergente. Dunque, la Self-Reflection and Insight Scale (SRIS) ha mostrato risultati soddisfacenti per la ricerca e l'applicazione nel contesto italiano.

Parole chiave

Self-Reflection and Insight Scale, SRIS, Self-Reflection, Insight, Proprietà psicometriche, Lavoratori.

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The Self-Reflection and Insight Scale

First study on the Psychometric Properties of the Italian Version

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Abstract

The Self-Reflection and Insight Scale (SRIS) is a widely used self-report tool developed to assess self-reflection and insight following a metacognitive approach. The present research aims to study the SRIS's psychometric properties in 112 university students in Tuscany (Central Italy). We conducted exploratory factor analysis, extracting factors to retain via Horn's parallel analysis. Reliability was assessed via Cronbach's alpha, and convergent validity was measured with the Flourishing Scale (FS) and the Resistance to Change Scale (RCS). We found that a two-factor structure fit the data well with satisfactory reliability. One factor reflected self-reflection and the second reflected insight. Both SRIS self-reflection and SRIS insight showed positive correlations with the FS. SRIS self-reflection showed no association with the RCS, whereas SRIS insight displayed negative correlations. Thus, the SRIS provided evidence of good convergent validity. Therefore, the Self-Reflection and Insight Scale (SRIS) – Italian Version shows satisfactory results for its application in research and practice in Italy.

Keywords

Self-Reflection and Insight Scale, SRIS, Self-Reflection, Insight, Psychometric properties, Workers.

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Introduction

Self-reflection, also known as self-consciousness, self-awareness, and self-focused attention, is vital for individuals' motivation, emotion, and self-control (Silva et al., 2022). Since the beginning of psychological self-awareness research, scholars have advanced several approaches to studying self-focused attention and the associated individual differences (Smári et al., 2008). Grant et al.'s (2002) generic model of self-regulation and goal attainment is one of the most widely used and takes a metacognitive approach to the different ways people are involved in self-focused attention (Roberts & Stark, 2008). This model comprises two key elements: self-reflection and insight. Self-reflection refers to the examination and appraisal of one's cognitions, emotions, and actions, whereas insight specifically comprises metacognitive aspects fundamental to evaluating and operating change (Carver & Scheier, 1998). Both self-reflection and insight are conceived as primary features in the self-regulatory process that underpins the establishment of the behavioural pattern of change (Grant et al., 2002). According to the generic model of self-regulation and goal attainment, the capacity of an individual in monitoring their behaviour is necessary in order to make purposeful progress. People set a goal, develop a plan, and act considering the self-regulation cycle towards a particular achievement (Aşkun & Çetin, 2017). In this line, self-reflection and insight support people in achieving goals, strengthening the individuals' monitoring and evaluation process (Roberts & Stark, 2008). Moreover, it is fundamental for authors to distinguish between rumination and self-reflection (Grant et al., 2002). Rumination refers to a negative or dysfunctional form of self-absorption, which is the opposite of constructive self-reflection (Anderson et al., 1996). Differently, self-reflection deals with processes of constructively examining individuals' thoughts and actions and it is not pathological in nature (Grant et al., 2002). In addition to this, self-reflection has a primary emphasis on the metacognitive elements that are specifically inherent to the process that allow people to move through the self-regulatory cycle and towards a goal (Grant et al., 2002). This shift towards goals sustained by self-regulation can be implemented by clients on their own or with the assistance of a coach (Grant et al., 2002). However, both the act of self-reflection and the attaining of insight are conceptually separate processes. For example, individuals can experience self-reflection for an extended time without ever developing new insights (Sliva, 2022). According to these premises, Grant et al., (2002) have developed the Self-Reflection and Insight Scale (SRIS) to provide researcher and practitioner with a more trustworthy self-report tool to assess self-reflection and insight during programmes focused on psychological change.

The SRIS is a twenty-item self-report scale that comprises two separate factors, labelled Self-Reflection (SRIS-SR) and Insight (SRIS-IN) (Grant et al., 2002). The psychometric properties of the original version of the scale were investigated in literature (Aşkun & Çetin, 2017; Grant et al., 2002; Roberts & Stark, 2008; Silva, 2022; Chen et al., 2016; Song & Kim, 2018). Grant et al. (2002) found a two-factor solution by applying principal component analysis with Varimax rotation, showing satisfactory psychometric properties for the latter two-factor solution. Subsequently, several studies adapted the scale in different populations. Roberts and Stark (2008) studied the psychometric properties of the scale in medical students, whereas Sauter et al. (2010) advance the Self-Reflection and Insight Scale for Youth (SRIS-Y). Cross-cultural adaptation of the SRIS was carried out in Hong Kong (Chen et al., 2016), Turkey (Aşkun & Çetin, 2017) and Korea (Song & Kim, 2018).

Even though the psychometric proprieties of the SRIS were recently studied in literature (e.g., Silva et al., 2022), to the best of our knowledge, no study has investigated the psychometric properties of the Italian version of the SRIS. Thus, the present study aims to evaluate the psychometric properties of the Italian version of the SRIS for its use in the Italian context.

Methods

Participants and Procedure

The Italian version of the SRIS was translated from English into Italian by applying the back-translation procedure. Participants of the current study were 112 university students (Mage = 24.01, DS = 2.20; male = 26.7%, female = 73.3%) from Tuscany in Central Italy, who participated in the study voluntarily. Each participant gave written and informed consent in accordance with Italian privacy legislation (Law Decree DL196/2003) and the EU General Data Protection Regulation (EU 2016/679). The administration order was balanced to counteract presentation order effects.

Instruments

Self-Reflection and Insight Scale (SRIS) — Italian Version. The Italian version (by Di Fabio & Svicher) of the SRIS (Grant et al., 2002) is a self-report scale composed of 20 items with answers rated on a Likert scale from 1 = *strongly disagree* to 7 = *strongly agree*. The English version of the SRIS showed two fac-

tors: Self-Reflection (SRIS-SR), encompassing 12 items and Insight (SRIS-IN), including 8 items.

Flourishing Scale (FS) – Italian Version. The Flourishing Scale (Diener et al., 2010; Italian Version by Di Fabio, 2016) is a unidimensional 8-item scale with responses rated between 1 (*strongly disagree*) and 7 (*strongly agree*). In the current research, reliability was $\alpha = 0.85$.

Resistance to Change Scale (RCS) – Italian Version. The RCS – Italian Version (Di Fabio & Bernaud, 2007) is based on the original scale (Oreg, 2003). It has 18 items that are rated on a 5-point Likert scale, with 1 being *completely false* and 5 being *completely true*. The Italian version of the instrument has three dimensions and one total score. These dimensions are Routine Seeking, Emotional Reaction to Imposed Change, and Cognitive Rigidity. In the present study the total score was used, showing reliability of $\alpha = 0.88$.

Statistical Analysis

The SRIS's factor structure was investigated via exploratory factor analysis with principal axis factoring and Varimax rotation. We carried out the Kaiser–Meyer–Olkin test (KMO) and Bartlett's test of sphericity (Bartlett, 1950; Kaiser & Rice, 1974). Factor structure was judged adequate with a KMO greater than 0.80 (Kaiser & Rice, 1974) and a statistically significant Bartlett's Test of Sphericity (Bartlett, 1950). We ran Horn's parallel analysis (Horn, 1965) to establish the factors' number to be extracted. Factor loadings were evaluated as follows: higher than 0.30 acceptable and higher than 0.50 good (Osborne et al., 2008). The fit of the factor solution was evaluated via the Tucker Lewis Index (TLI) (values above .90 = good fit) and the Standardized Root Mean Squared Residual (SRMR) (values below .08 = good fit) (Browne & Cudeck, 1993). Reliability of the SRIS was evaluated by means of the Cronbach's alpha coefficient. A Cronbach alpha > 0.70 was judged acceptable (Nunnally & Bernstein, 1994). Person's correlations were run to examine convergent validity of the SRIS with the Flourishing Scale and the Resistance to Change Scale. Significance levels were $p < 0.05$ (two-tailed). All analyses were implemented via the R *Psych 2.2.5* Package.

Results

Results of the KMO measure showed an adequate value (0.80). Bartlett's test of sphericity ($p \leq 0.001$) was statistically significant and, therefore, we carried out the EFA.

Figure 1 shows Horn's parallel analysis, which revealed a two-factor solution and therefore two factors were extracted.

Figure 1

Horn's parallel analysis for the Self Reflection and Insight Scale ($n = 112$)

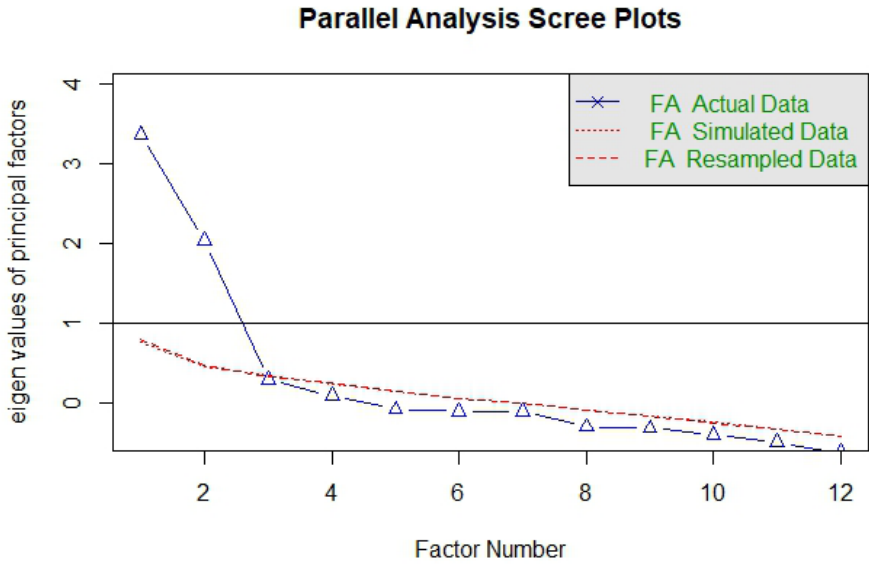


Table 1 reports the results of the exploratory factor analysis (EFA) of the SRIS. The EFA displayed that two factors explained 0.49% of the variance with TLI of 0.90 and RMSEA of 0.07, thus indicating an acceptable fit to the data. Table 1 displays that Factor 1 well reflected the Self-Reflection factor (SRIS-SR), encompassing all 12 SRIS-SR items with good factor loadings ranging from 0.82 to 0.52. Similarly, Factor 2 parallels the 8 items of the original Insight scales (SRIS-IN) with factor loadings ranging from adequate (0.41) to good (0.75).

Table 1

Exploratory factor analysis for the Self Reflection and Insight Scale. Principal axis factoring with Varimax rotation ($n = 112$)

# SRIS Item	Factor Loadings	
	Factor 1	Factor 2
1	0.56	
2	0.63	
3	0.79	
4	0.52	
5	0.70	
6	0.71	

# SRIS Item	Factor Loadings	
	Factor 1	Factor 2
7	0.69	
8	0.63	
9	0.73	
10	0.82	
11	0.57	
12	0.72	
13		0.41
14		0.75
15		0.54
16		0.72
17		0.71
18		0.52
19		0.61
20		0.42

SRIS: Self-Reflection and Insight Scale.

Table 2 reports the Pearson’s correlations between SRIS-SR, SRIS-IN, the Flourishing Scale (FS) and the Resistance to Change Scale (RCS). SRIS-SR showed positive and statistically significant correlations with the flourishing scale and no association with the RCS. SRIS-IN showed a positive and statistically significant association with the FS and a negative and statistically significant association with the RCS.

Table 2

Correlations between the SRIS-SR, SRIS-IN, FS and RCS ($n = 112$)

Variables	1	2	3	4
1. SRIS-SR	1			
2. SRIS-IN	0.35**	1		
3. FS	0.19*	0.37**	1	
4. RCS	0.03	-0.41**	-0.31**	1

SRIS-SR: Self-Reflection and Insight Scale – Self-Reflection factor; SRIS-IN: Self-Reflection and Insight Scale – Insight factor. FS: Flourishing Scale; RCS: Resistance to Change Scale.

Discussion

The current research, to the best of our knowledge, is the first study that has examined the psychometric properties of the SRIS in Italian participants. Exploratory factor analysis showed that a two-factor solution adequately fits the data, highlighting a factor structure that parallels those founded by Grant et al. (2002). Thus, a preliminary empirical evaluation of the psychometric properties of the Italian SRIS found a factor structure composed of two factors: one enclosing the original items of the Self-Reflection factor and the second encompassing the items of the Insight factor. Furthermore, empirical evidence highlighted a convergent validity with both the Flourishing Scale and the Resistance to Change Scale.

This study shows limitations and strengths. The main limitations are that the current research is conducted on university students in Tuscany. Therefore, further research must involve students from other regions and also be extended to workers. Regarding workers, in future studies, it could also be interesting to consider the SRIS in relation to job crafting (Gori et al., 2021) and also with variables related to the shaping of career processes such as career adaptability (Savickas & Porfeli, 2012). Another promising approach could be to explore the relationship between the SRIS and relevant psychological resources, for example, emotional intelligence, resilience, humour, hope, and other positive variables (Di Fabio, 2017a, 2017b) crucial to sustaining the psychological strength of students and workers through the adversities of the 21st century (Kenny et al., 2019; Blustein et al., 2019). Lastly, further research implementing item response theory models (e.g., Silva, 2022) could be useful in expanding the knowledge of the scale also in Italian participants. Despite the above-mentioned limitations, the SRIS — Italian Version showed good psychometric properties in measuring metacognitive processes related to self-reflection and insight. It could open a novel perspective of research and intervention on relevant variables crucial for strength-based prevention (Di Fabio & Saklofske, 2021) and primary prevention (Di Fabio & Kenny, 2016) frameworks.

References

- Aşkun, D., & Çetin, F. (2017). Turkish Version of Self-Reflection and Insight Scale: A Preliminary Study for Validity and Reliability of the Constructs. *Psychological Studies*, 62(1), 21-34. <https://doi.org/110.1007/s12646-017-0390-1>
- Anderson, E. M., Bohon, L. M., & Berrigan, L. P. (1996). Factor structure of the Private Self-Consciousness Scale. *Journal of Personality Assessment*, 66(1), 144-152. https://doi.org/10.1207/s15327752jpa6601_11
- Bartlett, M. S. (1950). Tests of significance in factor analysis. *British Journal of Statistical Psychology*, 3(2), 77-85.
- Blustein, D. L., Kenny, M. E., Di Fabio, A., & Guichard, J. (2019). Expanding the impact of the psychology of working: Engag-

- ing psychology in the struggle for decent work and human rights. *Journal of Career Assessment*, 27(1), 3–28. <https://doi.org/10.1177/1069072718774002>
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136-162). Sage.
- Chen, S.-Y., Lai, C.-C., Chang, H.-M., Hsu, H.-C., & Pai, H.-C. (2016). Chinese Version of Psychometric Evaluation of Self-Reflection and Insight Scale on Taiwanese Nursing Students. *Journal of Nursing Research*, 24(4). <https://doi.org/10.1097/JNR.000000000000132>
- Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. Cambridge, UK:Cambridge University Press.
- Di Fabio, A. (2016). Flourishing Scale: Primo contributo alla validazione della versione italiana [Flourishing Scale: First contribution to the validation of the Italian version] *Counseling. Giornale Italiano di Ricerca e Applicazioni*, 9(1). <https://doi.org/10.14605/CS911606>
- Di Fabio, A. (2017a). Positive Healthy Organizations: Promoting well-being, meaningfulness, and sustainability in organizations. *Frontiers in Psychology. Organizational Psychology*, 8, 1938. <https://doi.org/10.3389/fpsyg.2017.01938>
- Di Fabio, A. (2017b). The psychology of sustainability and sustainable development for well-being in organizations. *Frontiers in Psychology. Organizational Psychology*, 8, 1534. <https://doi.org/10.3389/fpsyg.2017.01534>
- Di Fabio, A & Bernaud, J.-L. (2007). L'attrattività della consulenza di orientamento: Alcune evidenze empiriche in studenti di scuola superiore [The attractiveness of career counseling: Empirical evidence in high school students]. *Giornale Italiano di Psicologia dell'Orientamento*, 7, 15-27.
- Di Fabio, A., & Kenny, M. E. (2016). From decent work to decent lives: Positive Self and Relational Management (PS&RM) in the twenty-first century. *Frontiers in Psychology. Section Organizational Psychology*, 7, 361. <https://doi.org/10.3389/fpsyg.2016.00361>
- Di Fabio, A., & Saklofske, D. H. (2021). The relationship of compassion and self-compassion with personality and emotional intelligence. PAID 40th anniversary special issue. *Personality and Individual Differences*, 157. <https://doi.org/10.1016/j.paid.2020.110109>
- Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D.-w., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, 97(2), 143–156. <https://doi.org/10.1007/s11205-009-9493-y>
- Gori, A., Svicher, A., Palazzeschi, L., & Di Fabio, A. (2021). Acceptance of Change Among Workers for Sustainability in Organizations: Trait Emotional Intelligence and Insight Orientation. In ed. A. Di Fabio *Cross-cultural Perspectives on Well-Being and Sustainability in Organizations* (p.p 203–211). Springer International Publishing. https://doi.org/10.1007/978-3-030-86709-6_13
- Grant, A. M., Franklin, J., & Langford, P. (2002). The Self-Reflection and Insight Scale: A new measure of private self-consciousness. *Social Behavior and Personality: An International Journal*, 30(8), 821–835. <https://doi.org/10.2224/sbp.2002.30.8.821>
- Horn, J. L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometrika*, 30(2), 179–185. <https://doi.org/10.1007/BF02289447>
- Kenny, M. E., Blustein, D. L., Liang, B., Klein, T., & Etchie, Q. (2019). Applying the Psychology of Working Theory for Transformative Career Education. *Journal of Career Development*, 46(6), 623–636. doi: 10.1177/0894845319827655
- Kaiser, H. F., & Rice, J. (1974). Little Jiffy, Mark IV. *Educational and Psychological Measurement*, 34(1), 111–117. <https://doi.org/10.1177/001316447403400115>
- Oreg, S. (2003). Resistance to change: Developing an individual differences measure. *Journal of Applied Psychology*, 88(4), 680–693. <https://doi.org/10.1037/0021-9010.88.4.680>

- Osborne, J., Costello, A., & Kellow, J. (2008). Best practices in exploratory factor analysis. In J. Osborne (Ed.), *Best practices in quantitative methods* (pp. 86–99). SAGE Publications Ltd.
- Roberts, C., & Stark, P. (2008). Readiness for self-directed change in professional behaviours: factorial validation of the Self-reflection and Insight Scale. *Medical Education*, *42*(11), 1054–1063. <https://doi.org/10.1111/j.1365-2923.2008.03156.x>
- Sauter, F., Heyne, D., Blöte, A., Van Widenfelt, B., & Westenberg, P. (2010). Assessing Therapy-Relevant Cognitive Capacities in Young People: Development and Psychometric Evaluation of the Self-Reflection and Insight Scale for Youth. *Behavioural and Cognitive Psychotherapy*, *38*(3), 303–317. <https://doi.org/10.1017/S1352465810000020>
- Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, *80*(3), 661–673. <https://doi.org/10.1016/j.jvb.2012.01.011>
- Silvia, P. J. (2022). The self-reflection and insight scale: applying item response theory to craft an efficient short form. *Current Psychology*, *41*(12), 8635–8645. <https://doi.org/10.1007/s12144-020-01299-7>
- Silvia, P. J., Eddington, K. M., Harper, K. L., & Kwapil, T. R. (2022). Self-reflection, insight, and mood disorder symptoms: Evaluating the short form of the self-reflection and insight scale with clinical interviews and self-reports. *Current Psychology*. <https://doi.org/10.1007/s12144-021-02619-1>
- Smári, J., Ólason, D., & Ólafsson, R. P. (2008). Self-consciousness and similar personality constructs. In G. J. Boyle, G. Matthews, & D. H. Saklofske (Eds.), *The SAGE handbook of personality theory and assessment* (Vol. 1, pp. 486–505). Sage.
- Song, M. O., & Kim, H. (2018). Validity and Reliability of the Self-Reflection and Insight Scale for Korean Nursing Students. *Journal of Korean Academy of Fundamentals of Nursing*. Korean Association of Fundamentals of Nursing. <https://doi.org/10.7739/jkafn.2018.25.1.11>