

## Forms of Self-Criticizing and Self-Reassuring Scale: Adaptation and Validation in a Sample of Portuguese Children

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### Abstract

Self-criticism may be understood as a harmful self-evaluation that implies feelings of uselessness and guilt towards perceptions of failure. Goals: to explore the latent structure and other psychometric properties of the Forms of Self-Criticizing and Reassuring Scale for Children (FSCRS -C) of the Portuguese population. Method: the FSCRS-C was administered to 249 Azorean children. Results: a two-dimensional model was confirmed including the Self-criticism and Self-reassuring subscale, which presented good internal consistency. The FSCRS -C presented good divergent and convergent validity. Conclusion:

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the adapted version for children provides a robust measure to be used in studies aiming at the study of the development of this construct.

**Keywords:** self-criticism; confirmatory factor analysis; self-reassurance; children

### **Escala das Formas do Autocriticismo e Autotranquilização para Crianças: Adaptação e Validação**

#### **Resumo**

O autocriticismo pode ser entendido como uma autoavaliação prejudicial que implica sentimentos de inutilidade e culpa quando o sujeito se depara com situações de fracasso. Objetivos: explorar a estrutura latente e qualidades psicométricas da Escala das Formas do Autocriticismo e Autotranquilização (FSCRS-C) da população infantil portuguesa. Método: o FSCRS-C foi administrado a 249 crianças açorianas. Resultados: verifica-se uma estrutura bidimensional que incluiu o autocriticismo e autotranquilização. As subescalas apresentaram uma boa consistência interna. O FSCRS-C apresentou uma boa validade divergente e convergente. Conclusão: a versão adaptada para crianças fornece uma medida robusta a ser utilizada em estudos visando o estudo do desenvolvimento deste construto.

**Palavras-chave:** autocriticismo; análise confirmatória; autotranquilização; crianças

## **INTRODUCTION**

Self-criticism refers to self-condemnation and negative self-evaluation in situations in which individuals make mistakes or face failures, being considered a stable dimension of the personality (Castilho, Pinto-Gouveia, & Duarte, 2013). As such, self-criticism is understood as a harmful self-assessment that originates feelings of inadequacy, uselessness and guilt when failing to achieve a pursued goal or when the goal is not achieved as intended (Gilbert & Procter, 2006). Thus, this construct is associated to internal shame experiences and with how individuals perceive themselves in the eyes of others, implying a negative self-evaluation (Gilbert & Procter, 2006).

From an evolutionary perspective and according to the social mentalities theory, self-criticism, due to its nature, form and function, is related to social competition (Castilho,

2011). This perspective admits the existence of social processing systems that are sensitive to social signals from the group. The behavioral advantages of possessing these processing systems allow individuals to maintain their social status, for instance, and obtain other benefits generated by other organisms from the same species (Buss, 2005; Gilbert et al., 2000). Thus, self-regulation will be a result of the interpersonal schemes built through this social processing (Gilbert, 1989, 2000). This internal relationship model is based on a hostile-dominant relationship that triggers the defense to threat system, along with the experience of inferiority and submission (Gilbert, 2000; Gilbert & Irons, 2005, 2006), which tends to make individuals vulnerable to negative social comparison and more prone to anxiety and shame (Gilbert, 2005, 2007 op. cit. in Castilho, 2011).

During childhood, experiences of shame, criticism, abandonment or neglect by significant others, may have a substantial impact in the development of other- and self-schemas. Children learn to regard themselves as inferior, weak, worthless or defective (Castilho, Pinto-Gouveia, Amaral, & Duarte, 2014), and tend to underdevelop the ability to self-soothe when facing distressful situations (Gilbert, Baldwin, Irons, Baccus, & Palmer, 2006). Parental practices are pivotal in how individuals will later perceive and relate with others, as well as in the development of internal relationship models (Gilbert, 2003; Gilbert et al., 2006). Hence, children who are humiliated, criticized, rejected or punished for their failures by others tend to internalize this relationship model. These internal relationship models are based on dominance and subordination when relating to themselves. The negative schemas are maintained by the belief that individuals deserve the criticism and attacks that are directed towards them (Gilbert, 1998; Gilbert, 2003; Gilbert et al., 2001, 2006), while the continuous resource to self-criticism over the lifetime constitutes a predictor of psychological problems and interpersonal difficulties (Zuroff, Moskowitz, & Côté, 1999).

If, in one hand, hostility triggers the defense to threat system, aiming to regulate and protect individuals, on the other hand, the ability to evoke warmth and supportive feelings tend to activate the soothing or self-tranquilization system (Gilbert et al., 2006). This way, individuals can recruit two types of behaviors when facing failure: directing and attack or evoking feelings of warmth and soothing towards the self (Gilbert et al., 2006).

Self-criticism arises as an attempt to correct mistakes or minimize/avoid them in the future (Gilbert, 2005) and, according to Gilbert, Clarke, Hempel, Miles and Irons (2004), these internal relationship models can assume distinct forms. The reassuring self as regulatory strategy based on the adoption of a warm and affectionate stance towards the self, understanding, accepting and compassionate when individuals are unsuccessful or confronted with failure (Gilbert et al., 2004; Gilbert & Procter, 2006). Contrarily, the two forms of self-criticizing, inadequate-self and hated self, are more harmful internal relationship models. The inadequate-self is characterized by feelings of inadequacy and inferiority, in which individuals feel deserving of their criticism

for failures and/or mistakes. The hated-self implies that individuals feel hate and/or aversion towards the self, with a desire to insult, abuse or punish the self (Gilbert et al., 2004). According to Gilbert and Irons (2004), while attacking the self as a form of correction and improvement may result in more dedication to a task to avoid failure, a self-criticism marked by prosecution and aversion to oneself simply puts down the self (Castilho & Pinto Gouveia, 2011). These authors contrast this internal criticism to the different coping focused on the positive attributes of the self, generating the self-tranquilization and acceptance of the self, which generates feelings of warmth and compassion that reassure the self (Castilho & Pinto Gouveia, 2011).

Taking these aspects into consideration, Gilbert et al. (2004) developed the Forms of Self-Criticizing and Self-Reassuring Scale (FSCRS). The scale was created and studied in a sample of female undergraduate students and later studies included adults from clinical and non-clinical samples (Baião, Gilbert, McEwan, & Carvalho, 2015; Castilho et al., 2013; Kupeli, Chilcot, Schmidt, Campbell, & Troop, 2012). This has allowed the demonstration that each of those forms can relate differently to psychopathology (Gilbert & Irons, 2004). Individuals who are hostile and recurrently attack themselves tend to feel dominated and trapped by the thoughts they are attempting to escape (Gilbert et al., 2001). This hostile internal experience and entrapment increases the vulnerability to depressive responses (Gilbert & Irons, 2004).

Recent research showed that individuals with high self-criticism tend to be less assertive, more submissive, more ashamed and depressive than their less selfcritical counterparts (Castilho, Duarte, & Pinto-Gouveia, 2016; Whelton & Greenberg, 2005). The same authors suggested that anger, disgust and contempt for the self may result in more pathological forms of self-criticism. In this line of research, studies have emphasized the association of self-criticism with the onset of several disorders in adolescents and adults, namely depression (Luyten et al., 2007; Murphy et al., 2002), social anxiety (Cox et al., 2000; Shahar & Gilboa-Shechtman, 2007), eating disorders (Pinto-Gouveia, Ferreira & Duarte, 2014; Teasdale & Cox, 2001), and self-harm (Xavier, Pinto-Gouveia, & Cunha, 2016). Self-criticism has also been associated with difficulties in psychological and interpersonal adjustments (Castilho & Pinto-Gouveia, 2011). Social environments that foster growth and interactions that generate positive affect in childhood allows the experience of excitement and joy and, consequently, of the exploration of social and physical spaces (Gilbert, 1998), and evidence suggests that individuals who have the capacity to reassure the self (self-soothing) also have a decreased risk of developing psychopathologies in comparison to individuals who self-criticize (Gilbert et al., 2006).

Despite the scarcity of studies with children, a longitudinal study allowed to verify that children with higher levels of self-criticism tended to have less years of education, lower social status (in males) and life dissatisfaction in adult life (Koestner & Powers, 1991). This emphasizes the importance of self-criticism in childhood,

as predictor of more negative outcomes in adolescence and adulthood. Research suggests the origins of self-criticism is tied to negative memories – experiences of parental intrusiveness, lack of warmth, subordinate parenting – difficulties in anger management (Ferster, 1973), modeling (Gilbert, 2005) and lack of positive, supportive and securing memories. While self-compassion is a self-regulatory strategy that transforms negative emotions or experiences into more adjusted and adaptive emotions and behaviors (Folkman & Moskowitz, 2000; Isen, 2000), this internal relationship model seems to be related to increased emotional intelligence, to the extent it allows individuals to acknowledge their emotions, integrating the experience more effectively throughout their thought processes (Salovey & Mayer, 1990).

To the best of our knowledge, there are no specific scales of forms of self-criticism or self-reassurance for children, and the generality of measures of self-criticism used in recent national and international studies were devised for adults, despite being administered to adults and adolescents' samples. While keeping the integrity of the items and the assessed content, self-report instruments often need to be adapted to children prior to administration, in order to simplify and facilitate the understanding of the item's content. The current study aims to adapt and study the psychometric properties of the FSCRS for children, providing a valid measure that is equivalent to the current and well-established measures available, allowing comparability and a more uniform assessment of self-criticism across the lifespan.

## METHOD

### *Participants and procedures*

Data was collected in public schools in S. Miguel Island, Azores, after all ethical authorizations needed for the realization of this study were attained. In the first encounter, a written informed consent form stating the study goals, anonymity, and confidentiality was provided to all participants' parents or legal representatives. In the second session, all participants whose parents signed their informed consent filled the assessment protocol in the presence of the researchers.

The final sample comprised 262 children from elementary schools, with ages between 8 and 11 years old ( $M = 8.8$ ,  $SD = 5.65$ ), 127 males (48.5%) and 135 females (51.5%). Five percent of the questionnaires were considered invalid due to improper filling and were excluded from analysis. To analyze the scale's temporal stability, a sample of 116 students were administered the FSCRS-C with a 78 days' time interval.

In this sample, it was assured that children were not only able to read (an ability acquired around the 3<sup>rd</sup> year of elementary schooling), but also able to understand the content of each item. This understanding is dependent on the complexity of item's content and formulation and, with this purpose of assuring children had the ability to read and understand the scale's items in mind, the FSCRS-C was firstly administered to a group of 30 children. They were invited to share their experiences and difficulties while filling the scale. This way, it was possible to adjust the item's formulation to simplify and improve comprehensibility for a younger population. Despite self-criticism being a phenomenon that may be present across the lifespan, this construct may have some differences regarding its manifestation in children when compared to adolescents or adults, particularly on its emotional expression. It was, thus, necessary to attend to the level of cognitive development of this population while assessing a construct of a significant degree of complexity. The remaining descriptions of the psychometric properties of this scale will be presented on the results section.

## STATISTICAL ANALYSIS

Statistical analyses were carried out using SPSS v. 20 and Amos v. 20 (IBM Corp. Released, 2011). Quality of model adjustments were assessed through Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI), with reference values of adjustment above .90; Parsimony CFI (PCFI) with acceptable values above .06; Root Mean square Error of Approximation (RMSEA) below .05, and Akaike Information Criterion (AIC) (Kline, 2011; Marôco, 2010). Items saturation in each subscale was also observed, and deletion criteria was used in items with saturations or composites below .40. In addition, construct reliability and validity was evaluated through Composite Reliability (CR  $\geq$  .70) and construct validity was assessed through Average Variance Extracted (AVE  $\geq$  .50), as suggested by Fornell and Larker (1981).

Temporal stability was established through a paired-sample *t* test and convergent and divergent validity was evaluated through Pearson's Product-moment correlations. Internal consistency of the subscales found in the CFA was assessed through Cronbach's alphas.

## MEASURES

***Forms of Self-Criticizing and Reassuring Scale – C*** (FSCRS; Forms of Self-Criticizing and Reassuring Scale, Gilbert et al., 2004; Translated and adapted for the Portuguese adult population by Castilho & Gouveia, 2005);

The FSCRS is a self-report measure originally devised for adults by Gilbert et al., (2004). It comprises 22 items assessing how people criticize, attack or soothe themselves when facing failure. Each statement is rated in a 5-point Likert-type frequency scale. The scale has 3 dimensions – Inadequate Self, Hated Self and Reassured Self – presenting good internal consistency:  $\alpha = .90$ ,  $\alpha = .86$  and  $\alpha = .86$ , respectively (Gilbert et al., 2004). The scale's utility and dissemination in several studies, including clinical and non-clinical samples, has allowed the translation and validation for the Portuguese adult population by Castilho and Pinto-Gouveia (2011). The Portuguese version of the FSCRS for adults has shown good reliability and validity, and the adaptation of the FSCRS for children used in this study was based on this translated version of the FSCRS by Castilho & Gouveia (2005).

***Emotional Intelligence Questionnaire in Portuguese children (EIQ-C; Barreto Carvalho, Benevides, Sousa, Cabral, & da Motta, 2016).***

This self-report questionnaire comprises 34 statements rated in a 5-point Likert-type scale. Each item refers to different universal emotional experiences as well as skills related to Emotional Intelligence (EI) (empathy and emotion regulation). The scale is divided in 3 dimensions that present adequate internal consistency: Hedonic mode ( $\alpha = .59$ ), Agonistic mode ( $\alpha = .77$ ) and EI skills ( $\alpha = .52$ ; Barreto Carvalho et al., 2016).

***Other as Shamer Scale for Children (OAS-C; Goss, Gilbert & Allan, 1994; Adaptation for a Portuguese children population by Benevides, da Motta, Sousa, Caldeira, & Barreto Carvalho, 2016).***

The OAS-C is a brief and adequate measure of external shame for children. This self-report scale comprises 8 items rated in a 5-point Likert-type frequency scale. The scale presented good internal consistency in the original study ( $\alpha = .83$ ).

## RESULTS

### *Item analysis and scale dimensionality*

The original 3-factor model for the 22 items of the FSCRS were initially tested, with some fit indices presenting good indicators of model fit, but others indicating less desirable local fit:  $\chi^2(203) = 415.472$ ,  $p = .000$ ,  $\chi^2/df = 2.018$ ; CFI = .861; GFI = .915, RMSEA = .049,  $P(\text{rmsea} \leq 0.05) = .586$ , PCFI = .745, PGFI = .767, AIC = 504.742. Five items in the model showed low individual reliability within their parent factor ( $R^2 < .25$ ), and

residual analysis did not show any correlation with other items that may improve the model or the existence of a different factor in the proposed structure. Thus, the deletion of 5 items (3, 5, 12, 14 and 20) yielded improved model fit indices:  $\chi^2(101) = 218.909$ ,  $p = .000$ ,  $\chi^2/df = 2.167$ , CFI = .899, GFI = .936, RMSEA = .052,  $P(rmsea \leq 0.05) = .322$ , PCFI = .695, PGFI = .757, AIC = 288.909. Despite some items still presented lower individual reliability, they did not seem to significantly impact local adjustment and we proceeded to explore the model's discriminant and convergent validity. Further analysis showed that the Inadequate self and Reassured self had good Composite Reliability ( $\geq .70$ ), except for Hated self: Inadequate self, CR = .73; Reassured self, CR = .70, and Hated self, CR = .57. Construct validity was assessed through AVE, yielding poorer results: Inadequate self = .28, Reassured Self = .28 and Hated self = .31. This may be due to the strong correlation between Inadequate and Hated self (.870), which suggest that, despite the consistency of both factors, Inadequate and Hated self are a manifestation of an overarching latent variable, Self-criticism. In addition, a moderate negative correlation was found between Hated and Reassured self (-.453), and the correlation between Inadequate self and Reassured self was low (-.184). A higher order model including Self-criticism, encompassing the Hated and Inadequate self, showed identical values in each of the model fit indices, and is, therefore, considered to be equivalent to the first-order model. A pictographic representation of the higher-order model is presented in Figure 1.

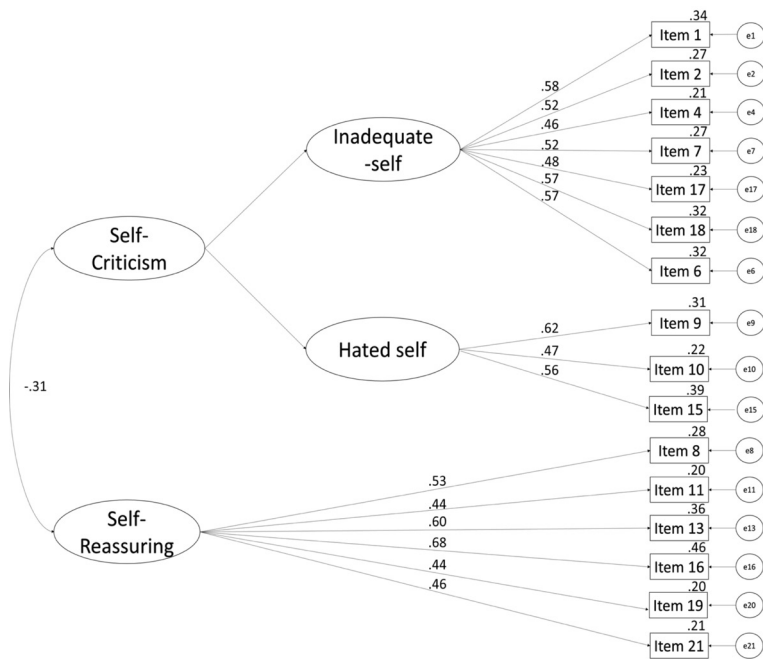


Figure 1 – Second-order model of the FSCRS



### Reliability and validity

Reliability analysis was calculated for each subscale of FSCRS: reassured self,  $\alpha = .695$  and self-criticism (items from the Hated and Inadequate self-subscale) presented a good reliability,  $\alpha = .785$ .

The absolute reliability was tested through paired sample t-tests and none of the dimensions presented significant differences in the first and second assessment moment for a Bonferroni corrected alpha of 0.5 (Table 1). Relative reliability was assessed through Pearson's correlation coefficients, with values ranging from  $r = 0.335$  ( $p < .001$ ) to  $r = 0.604$  ( $p < .001$ ).

Table 1 - Paired-sample t-test ( $n = 116$ )

	Time 1		Time 2		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Self-criticism	33.75	10.86	33.57	13.18	0.175	.861
Reassured Self	32.11	5.59	30.74	6.64	2.079	.040

### Convergent and divergent validity

As presented in Table 2 strong and statistically significant correlations were observed between self-criticism, external shame and agonistic mode. Moreover, strong correlations were also found between the Reassured Self subscale and the hedonic mode and EI skills, thus demonstrating the convergence of the scale with related construct. Divergent validity is demonstrated by the lack of associations between self-criticism and hedonic mode or EI skills.

Table 2 - Correlation Coefficients Between FSCRS-C and OASB-C and EIC ( $n = 262$ )

	Self-criticism	Reassured Self
EIC Hedonic	.021	.424**
EIC Agonistic	.527**	.138*
EIC EI Skills	.080	.400**
OASB C	.651**	-.036

## DISCUSSION

Self-criticism is an important construct that encompasses several maladaptive processes related to social and psychological adjustment (Castilho & Pinto-Gouveia, 2011).

In early childhood, a salient and systematic resource to self-criticism may constitute a predictive factor of psychological problems and interpersonal difficulties, particularly when the ability to reassure oneself and regulate one's emotions is underdeveloped (Koestner, & Powers, 1991; Zuroff et al., 1999).

Given the existence of well-established measures that operationalize the assessment of self-criticism, and particularly the forms of self-criticism and self-reassurance when facing difficult situations, it is not imperative to develop yet a new measure aiming this construct. In other words, it is of greater utility to cease the existence of instruments specifically devised for evaluating self-criticism and self-reassurance towards mistakes or failures that is widely used and disseminated in national and international research and adapting it to a particular public (children), than to devise a new assessment tool of identical purpose. The use of the adapted version allows its use in Portuguese children and reinforces its clinical and research usefulness to studies of the phenomena across the lifespan. Thus, we adapted the Portuguese translation of FSCRS (Castilho & Pinto-Gouveia, 2011) to younger populations, in order to provide an equivalent instrument adequate to their age range, while being comparable to other measures available for adults. This adaptation process encompassed the adjustment of item's content to improve comprehension and readability, in simpler and more concrete terms, maintaining the same number of items and response scale as in the original version. It was, then, warranted that children attending to the 3<sup>rd</sup> year of elementary education or above could read and understand the item's content on a first stage, despite further statistical analysis revealed the need to exclude 5 items that presented lower reliability (perhaps more difficult to interpret by younger participants) in the larger sample.

Findings regarding the FSCRS-C validity revealed the convergence of self-criticism with more defensive emotional patterns. In a study carried out by Whelton and Greenberg (2005), it has been suggested that people presenting higher levels of self-criticism are less assertive, more submissive, sadder and more ashamed as their less self-critical counterparts. The same research suggests that anger, disgust and contempt may lead to more pathogenic forms of self-criticism. This process recruits different emotions related to disgust, anger, and anxiety, being closely tied to two basic processes – hostility, disgust and self-contempt (Gilbert et al., 2004; Neff, 2003, op. cit. in Castilho, 2011) and the inability to tranquilize oneself.

The Reassured Self dimension demonstrated convergence with the measure of Hedonic mode and Emotional Intelligence skills. Hedonic mode is related to the soothing system, inhibiting more primitive forms of social interaction (e.g. competition) (Chance, 1988; Gilbert, 1989) and contributing to prosocial behavior that promotes stimulating, creative reciprocity-based interactions. These interactions act as positive reinforcement (Chance, 1988; Gilbert, 1989) and are regarded as an

evolutionary advantage as they promote cooperation among individuals (Gilbert, 1989). In fact, Depue and Morrone-Strupinsky (2005) advocates that achieving a desired goal elicits states of joy and vitality. This well-being is associated with a state of contentment where the defensive systems are deactivated, a fundamental aspect of the experience of safeness and happiness (Depue & Morrone-Strupinsky, 2005). This latter finding was congruous with our results, where the reassured self was positively associated with emotional responses, associated with joy, and contrariwise the self-criticism was not.

Concerning the temporal stability of the scale, results showed the absolute and relative reliability of the test scores over time and the adequability of the FSCRS-C, to be used in repeated measures design, for instance. The slight changes in the reassured self scores, observed between the first and second assessment, despite non-significant, may indicate the influence of contextual variables: the second assessment coincided with the final evaluative period, which may render children more prone to anxiety and with difficulties to tranquilize themselves.

Regarding the latent structure of the FSCRS-C, the greatest change in comparison to other versions refers to the two-dimensional model. The dimensions' Inadequate self and Hated self were not independent from each other as in previous studies.

Overall, results of the current adaptation of the FSCRS for children present good psychometric properties and its availability will provide more robustness and comparability for results in studies involving younger populations. The instrument is relatively brief and easy to administer, facilitating cross-national research carried out over the life span in clinical and non-clinical samples.

A limitation of the current study is the convenience sampling method that implicates that the generalization of the findings presented hereby be made with caution. Additionally, the scarcity of measures adapted and properly validated for children in Portuguese is a limitation that restricted a broader evaluation of the convergent and divergent validity of the current measure. Future studies should aim the replication of this findings in clinical samples within the same age range, in order to verify the stability of the two-dimensional structure and provide further convergent validity with measures with different variables.

Finally, it is imperative to emphasize the importance of assessing forms of self-criticizing and self-reassuring in therapeutic and learning contexts, as well as the relevance of promoting emotion regulation strategies and coping skills when facing adversity from the early stages of development. Self-criticism, being itself a mechanism to cope with shame, must be replaced by more functional forms of internal relationships that allow individuals overcome life's setbacks, and are aimed to counteract or contain the arising feelings shame, rejection and criticism from others in which self-criticism is rooted. The preventive approach or an early inter-

vention focusing on self-criticism, that allows to suppress or overcome difficulties in dysfunctional emotion regulation strategies and in coping with failure, may protect individuals later in life, during adolescence and adulthood, through the promotion of strategies related to self-tranquilization and facilitating individual wellbeing.

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