

Article

Adaptation and Validation of the Revised Test for Need for Cognitive Closure to the Argentinian Context

Luis Carlos Jaime^{1,4} , Hugo Simkin^{2,3,4} , Susana Azzollini^{1,4} , Erica Molinario⁵ ,
Gennaro Pica⁶ , Arie W. Kruglanski⁷ 

¹Instituto de Investigaciones. Facultad de Psicología, Universidad de Buenos Aires (Argentina)

²Facultad de Ciencias Sociales, Universidad de Buenos Aires (Argentina)

³Facultad de Educación y Ciencias Sociales, Universidad Andrés Bello (Chile)

⁴Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET) (Argentina)

⁵Department of Psychology, Florida Gulf Coast University (Estados Unidos)

⁶Scuola di Giurisprudenza, Università di Camerino (Italia)

⁷Department of Psychology, University of Maryland (Estados Unidos)

ARTICLE INFO

Received: 29/08/2025

Accepted: 28/09/2025

Keywords:

Need for cognitive closure

Dimensionality

Adaptation

Validation

Right wing authoritarianism

Social dominance orientation

ABSTRACT

Introduction: *Need for cognitive closure* (NFCC) concerns people's motivations for seeking and maintaining a definitive answer to a given problem as against confusion, ambiguity, and/or uncertainty (Webster & Kruglanski, 1994). To assess individual differences in need for cognitive closure Webster and Kruglanski (1994) developed a need for cognitive closure scale (NFCS), whose original formulation presented a unidimensional factor structure. A two factors structure (i.e., urgency tendency [seizing] and permanency tendency [freezing]) was later found by other authors (Pierro & Kruglanski, 2005) and developed into the Revised Test for Need for Cognitive Closure (RT-NFCC). **Methods:** The main objective of the present work was to adapt and validate a measure of the need for cognitive closure scale (Webster & Kruglanski, 1994) to the Argentinian context. We adapted the RT-NFCC to the Argentinian context, using a non-probabilistic, intentional sample of university students from University of Buenos Aires ($N = 713$; Women 78.8 %; $Mage = 27.43$). **Results:** The results indicated a very good fit of the data to the two-factorial model. The level of reliability of the two factors was proven adequate (Urgency: $\alpha = .83$; Permanency: $\alpha = .72$). **Discussion:** The adaptation demonstrates psychometric performance with a high degree of accuracy for evaluation in the Argentine context.

Adaptación y Validación del Test Revisado de Necesidad de Cierre Cognitivo al Contexto Argentino

RESUMEN

Introducción: La necesidad de cierre cognitivo (NFCC) hace referencia a las motivaciones de las personas para buscar y mantener una respuesta definitiva a un problema dado frente a la confusión, la ambigüedad y/o la incertidumbre (Webster & Kruglanski, 1994). En aras de medir las diferencias individuales en NFCC, Webster y Kruglanski (1994) desarrollaron la escala NFCS, la cual originalmente manifestaba una estructura factorial unidimensional. Posteriormente, otros autores (Pierro & Kruglanski, 2005) encontraron una estructura bidimensional (es decir, tendencia a la urgencia y tendencia a la permanencia) desarrollando el test revisado de NFCC (RT-NFCC). **Método:** El objetivo principal del presente trabajo fue adaptar y validar una medida de la escala de necesidad de cierre cognitivo (Webster & Kruglanski, 1994) al contexto argentino. Adaptamos el RT-NFCC al contexto argentino, utilizando una muestra

Palabras clave:

Necesidad de cierre cognitivo

Dimensionalidad

Adaptación

Validación

Autoritarismo del ala de derechas

Orientación a la dominancia social

Cite as: Jaime, L. C., Simkin, H., Azzollini, S., Molinario, E., Pica, G. y Kruglanski, A. W. (2025). Adaptation and validation of the revised test for need for cognitive closure to the argentinian context. *Revista de Psicoterapia*, 36(132), 114-120. <https://doi.org/10.5944/rdp.v36i132.46081>

Corresponding author: Jaime, Luis Carlos, luiscarlosjaime@gmail.com

This article is published under Creative Commons License 4.0 CC-BY-NC

intencional no probabilística de estudiantes universitarios de la Universidad de Buenos Aires ($N = 713$; Mujeres 78.8 %; $M = 27.43$). **Resultados:** Los resultados indican un muy buen ajuste de los datos al modelo de dos factores siendo la confiabilidad adecuada (Urgencia: $.83 = \alpha$; Permanencia: $.72 = \alpha$). **Discusión:** La adaptación muestra un comportamiento psicométrico con un alto grado de precisión para su evaluación en el contexto argentino.

Introduction

Human being's relationship with uncertainty is certainly not easy. Some people can deal with it, but others just want it as far away as possible. Webster and Kruglanski (1994) introduced the concept of Need for Cognitive Closure (hereinafter NFCC) to refer to individuals' cognitive motivation to seek, find, and sustain a definitive answer to a specific problem as a way of tackling the confusion, ambiguity, and/or uncertainty. This motivation represents a psychological state centring on relatively stable dispositional individual differences and is a continuum ranging from an intense need to reach closure at one end and an equally intense need to avoid closure at the other (Webster & Kruglanski, 1994).

NFCC is composed of two different yet complementary sequential phases: the urgency tendency (seizing) to achieve specific knowledge and the permanence tendency (freezing) of such knowledge (Kruglanski & Webster, 1996). The first phase refers to the desire to reach the closure as soon as possible seeking an immediate response to a problem or uncertainty. The second phase refers to the inclination to maintain the current closure as long as possible, perpetuating cognitive closure and avoiding considering new information that may question the problem's adopted solution. In this sense, the freezing phase safeguards the knowledge system against new, contradictory information (Roets & Van Hiel, 2007). Thus, both tendencies together influence the NFCC level. People with lower NFCC are capable of living with uncertainty and being reluctant to commit to a definite opinion, close problems, or make decisions rapidly. On the contrary, people with higher NFCC experience adversely the absence of a clear and lasting response in situations of uncertainty, tend to seize a solution as rapidly as possible and freeze on it, being more likely to decide on the basis of non-conclusive evidence, while displaying a rigidity of thinking and a reluctance to take into account points of view that differ from their own (Kruglanski, 2001).

Webster and Kruglanski (1994) developed the need for cognitive closure scale (henceforth NFCS) as a measure of the individual's desire for an answer on a given topic, compared to confusion and ambiguity. This enabled an analysis of the construct in the adult population using forty-two Likert-type six-point response format items. Initially, the authors developed the NFCS as a one-dimensional measure of NFCC encompassing its five main aspects: discomfort with ambiguity; rapid decision-making capacity in judgments and choices; the desire or preference for order and structure; the closed-minded mentality; and a desire or preference for knowledge to predict situations or future events (Webster & Kruglanski, 1994). Subsequently, Pierro and Kruglanski (2005) proposed a two-factors model correlated with a second order factor and composed of urgency tendency (seizing), and permanence tendency (freezing) (Revised Test for Need for Cognitive Closure- RT-NFCC).

The main novelty of the RT-NFCC lies in the fact that the items were designed to explicitly evaluate the two tendencies promoted by NFCC: the urgency tendency and the permanence

tendency (Pierro & Kruglanski, 2005). Compared to Webster and Kruglanski's (1994) one-dimensional structure forty-two items version, the RT-NFCC is a two-dimensional structure pared-back fourteen-item test. Factorial analyses of the RT-NFCC have shown the presence of two correlated factors representing the urgency and permanence tendencies (Pierro & Kruglanski, 2005). Both the RT-NFCC and the NFCS showed similar psychometric properties regarding internal consistency and validity. The RT-NFCC scores correlate significantly with the original NFCC test scores ($r = .92$; $p < .01$) (Pierro & Kruglanski, 2008). Furthermore, the RT-NFCC scores display adequate reliability in their internal consistency with Cronbach alpha values between .70 and .80 like the original NFCC test scores (Orehek et al., 2010).

The development of the RT-NFCC allowed studying the influence of NFCC on other variables such as prejudice (Baldner et al., 2019), forgiveness (Pica et al., 2020), populism (Molinario et al., 2021), retrieval-induced forgetting (Pica et al., 2018), memory and judgment (Dijksterhuis et al., 1996), sexism (Švedas & Erentaitė, 2014), acculturation (Kashima & Loh, 2006), conservative beliefs and racism (Van Hiel et al., 2004), decision-making style (Shiloh et al., 2001), Islamic extremism (Webber et al., 2018), personality traits (Gärtner et al., 2024), affective reactions to uncertainty (Kruglanski et al., 2025), to name a few. However, in addition to the themes presented, two other psychological variables that are related to NFCC are Right-wing authoritarianism (RWA) and Social Dominance Orientation (SDO). The first one is defined as the covariation of three attitudinal clusters: authoritarian submission, authoritarian aggression, and conventionalism (Altemeyer, 1981). The first refers to the tendency to submit to the authorities perceived as fully legitimate in the government of society. The second evaluates the predisposition to hostility towards people and groups considered as potential threats to the social order. Finally, the third refers to the general acceptance of social conventions (Altemeyer, 1981).

On the other hand, SDO is defined as the individual predisposition towards hierarchical and non-egalitarian intergroup relationships, that is, the degree to which an individual supports a hierarchical group system (Sidanius & Pratto, 1999). The concept was developed by Pratto et al. (1994), who postulated that the structures that sustain social inequality tend to be reinforced through this psychological mechanism that attempts to explain the desire of individuals to establish and sustain social hierarchies, as well as subordination of groups considered inferior to others perceived as superior.

Both RWA and SDO can be understood as attitudinal dimensions of political conservatism and are related to the NFCC since both provide the individual with rigid, orderly, and non threatening schemes with respect to the organization of society, giving the feeling of an orderly and controllable world (Jost et al., 2003). In this sense, individuals with a greater motivation to seek and maintain a definitive answer to a specific problem to avoid uncertainty, will be drawn to these attitudinal dimensions since both variables refer to behaviors that can be thought of as associated with the need for

cognitive closure (Roets et al., 2006). While individuals with a greater tendency towards SDO will support hierarchical and unequal social systems in which some groups (generally the in-group) legitimately possess a privileged position and that can keep other groups (the out-groups) in a subordinate position (Pratto et al., 1994), people with a greater tendency towards RWA will adhere to and abide by social conventions, instead of rejecting them (Altemeyer, 1981).

The Present Research

The NFCC scale has been adapted to several cultural contexts such as Netherlands (Cratylus, 1995), Italy (De Grada et al., 1996), Germany (Kemmelmeyer, 1997), Poland (Kossowska, 2003), Japan (Suzuki & Sakurai, 2003), China (Moneta & Yip, 2004), Spain (Horcajo et al., 2011), Belgium (Roets & Van Hiel, 2011), Turkey (Hasan et al., 2017; Yilmaz, 2018), Macedonia (Sulejmanov et al., 2018), South Korea (Kim, 2020), Brazil (Caro Simões dos Reis & Pilati, 2021), India (Paliwal & Kumar, 2022), and Rusia (Yasin & Khukhlaev, 2023). Although an adaptation of the scale to the Spanish-speaking world has already been carried out in with Spaniards (Horcajo et al., 2011), an adaptation and validation of measurement to the Argentinian context is still missing. Thus, the main aim of this work is to adapt and validate the RT-NFCC scale (Pierro & Kruglanski, 2005) to the Argentinian context and assess its factorial structure. Toward these aims we conducted a cross-sectional study described in what follows.

Method

Sample

Participants were selected by incidental non-probability sampling on the basis of age and gender. Participants were students recruited during classes at the University of Buenos Aires ($N = 713$; Women 78.8 %; Age range = 18-50, M age = 27.43; SD age = 4.13). The sample size was determined considering the analyses performed. For correlations, an a priori calculation with G*Power 3.1 (Faul et al., 2007) indicated a minimum of 84 participants to detect moderate correlations ($r = 0.30$), following Cohen's (1988) effect size criteria, with $\alpha = 0.05$ and a desired power of 0.80. The actual power obtained with the study sample was 0.80. For the CFA, following recommendations from the literature (Kline, 2012; Hair et al., 2009), a minimum of 200–400 participants is suggested to ensure stability of the estimators and robustness of the fit indices. The final sample of the study ($N = 713$) far exceeds these thresholds, ensuring high power and reliability in the analyses performed. Participants did not receive any compensation for their participation. Responses were collected using paper and pencil.

Measures

The Revised Test for Need for Cognitive Closure (RT-NFCC)

A 14-items scale was used to measure NFCC. This scale is an adaptation of the RT-NFCC (Pierro & Kruglanski, 2005) whose items are grouped into two dimensions: urgency tendency (e.g., 'In case of uncertainty, I prefer to make an immediate decision, whatever it may be') and permanency tendency (e.g., 'Generally, I do not search for alternative solutions to problems for which I

already have a solution available'). The response format is Likert-type, with six anchors depending on degree of participant agreement (1 = *Strongly Disagree*, 6 = *Completely Agree*).

Right Wing Authoritarianism (RWA)

We used the Argentine adaptation and validation of the short version of the RWA scale (Etchezahar et al., 2011). This scale is made up of 6 items. Its response format is Likert-type with five anchors ranging from 1 = *"Totally Disagree"* to 5 = *"Totally Agree"*.

Social Dominance Orientation (SDO)

To measure Social Dominance Orientation we used the Argentine adaptation and validation of the SDO scale (Etchezahar et al., 2014). This scale is made up of 10 items whose items are grouped into two dimensions: Group dominance and Opposition to equality, which together make up the SDO construct ($\alpha = .84$). The response format is a 5-points Likert-type scale ranging from 1 = *"Completely Disagree"* to 5 = *"Completely Agree"*.

Socio-Demographic

Participants were asked to report their age and sex.

Procedure

The adaptation process involved three stages. First, we applied the international methodological standards recommended by the International Test Commission (ITC) for the correct adaptation of the instrument from one language context to another (Muniz et al., 2013). Specifically, the instrument was first translated from English to Spanish by two translators and then from Spanish to English by two back-translators (i.e., translation-back-translation process). These translations were, then, scrutinised by a group of five experts, who determined their suitability to the Argentinian context and their construct validity. Following the experts' analysis, a third phase was implemented, in which the RT-NFCC was administered to a sample of 713 participants. Along with the RT-NFCC, and for validation purposes we also administered the Argentine adaptation of the Right-Wing Authoritarianism Scale (RWA) (Etchezahar et al., 2011) and the Argentine adaptation of the Social Dominance Orientation scale (SDO) (Etchezahar et al., 2014), and finally, we collected sociodemographic information about the participants.

Subjects were invited to participate voluntarily in the research recruited by researchers and professors, and the questionnaires were administered to them in paper format. Their informed consent, which included information complying with the National Law 25,326 for personal data protection, was collected prior to the administration of the questionnaire.

Data Analysis

Data were analysed using the statistical packages SPSS 22, AMOS 6.1 and EQS 6.4. First, we assessed the reliability of RT-NFCC. Specifically, following recommendations in the literature (Dunn et al., 2014), we looked at the RT-NFCC internal consistency using Cronbach's alpha statistics and the omega coefficient. Second, we evaluated the construct's validity using a confirmatory factor

analysis (hereinafter CFA) based on the robust generalised least squares (GLS) method, following previous recommendations (Schermelleh-Engel et al., 2003). The model was evaluated using the comparative fit index (CFI), and the root mean square error of approximation (RMSEA), as well as the root mean square residual (RMR), as recommended in the literature (Holgado-Tello et al., 2015; Kline, 2005; Lomax & Schumacker, 2004).

Results

First, we assessed the construct validity of the scale by conducting a CFA using AMOS 6.1. We tested a two dimensional-structural model in which the permanency and urgency dimensions are correlated. This model is in line with [Pierro and Kruglanski \(2005\)](#). See [Figure 1](#) for the graphical representation of the structural model tested.

To interpret the CFA, the following goodness of fit indicators were used: a) df ; b) Root mean-square error of approximation (RMSEA), this index is used to evaluate the level of error that the tested model entails, considering that it is possible to accept scores lower than .08 as an indicator of an appropriate adjustment ([Browne & Cudeck, 1993](#)); c) Comparative fit index (CFI), being indicators of a good adjustment values $> .90$ ([MacCallum & Austin, 2000](#)); d) Residual mean square root-RMR (RMR values should be ≤ 0.08 , to indicate a good fit). The CFA showed a good fit to the data $df = .76$; $RMSEA = .0638$; $CFI = .947$; $RMR = .0694$ ([Bentler, 1990](#); [Hu & Bentler, 1999](#)).

Next, to assess the external validity of the scale we tested the relationships between NFCC, RWA, and SDO. We found a statistically significant and positive, association. between RT-NFCS

and SDO_DG ($r = .32$, $p < .01$), RT-NFCS and RWA ($r = .32$, $p < .01$), and SDO_DG and RWA ($r = .42$, $p < .01$) (see [Table 1](#)). The interpretation of the correlation coefficients was carried out following [Cohen \(1988\)](#), with $r = 0.10$ considered a small effect, $r = 0.30$ a medium effect, and $r = 0.50$ a large effect.

Next, we evaluated the internal consistency of the two NFCS domains (i.e., urgency tendency and permanency tendency). The internal consistency of the two dimensions was evaluated by conducting a Cronbach's alpha analysis and the omega coefficient analysis using SPSS 22. The Cronbach's alpha analysis showed reliability levels for both the urgency dimension ($\alpha = .83$) and the permanence dimension ($\alpha = .72$). The omega coefficient analysis, instead, indicated a value of .83 for the urgency dimension and .72 for the permanence dimension. A high value (often ≥ 0.70 or higher) indicates that the items within the scale are well-correlated and work together to provide a trustworthy measure of the intended concept, in this sense, both Cronbach's alpha statistics and the omega coefficient values obtained were satisfactory ([Dunn et al., 2014](#); [Hair et al., 2009](#); [Arias et al., 2014](#)).

Finally, it is possible to conclude that the fourteen adapted items contributed to the construct they represent (see [Table 2](#)). In the context of exploratory factor analysis (EFA), factor loadings greater than .40 are generally considered acceptable for interpretation. According to [Kline \(2012\)](#), a loading $\geq .40$ is acceptable, and a loading $\geq .60$ is strong. In our study, before conducting the CFA, we found in the EFA that values obtained in Urgency Factor (factor loadings ranging from .633 to .765) and in Permanency Factor (factor loadings ranging from .496 to .701) were satisfactory (see [Table 2](#)).

Discussion

The study's main aim was to adapt and validate the RT-NFCC in the Argentinian context. The results suggest that the scale obtained is a suitable instrument to assess NFCC, with adequate levels of internal consistency and construct validity. The two dimensions model as proposed by [Pierro and Kruglanski \(2005\)](#) displays a good fit with the data.

The results suggest that the adaptation of the RT-NFCC displays psychometric behavior with a high degree of accuracy for the Argentinian context. Both their psychometric properties and dimensionality are very similar to those of the original RT-NFCS.

Figure 1
Structural Model for RT-NFCC

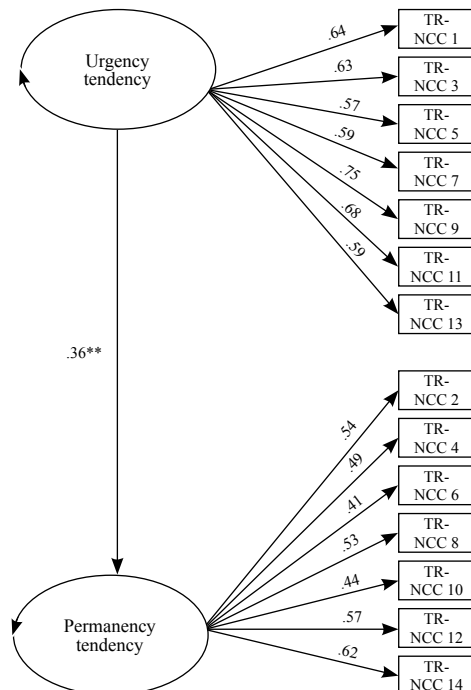


Table 1

Correlations Between Social Dominance Orientation and Right-Wing Authoritarianism With the Need for Cognitive Closure

	1	2	3	4	5	6
1. RT-NFCS	1					
2. RT-NFCS -P	.795**	1				
3. RT-NFCS -U	.811**	.291**	1			
4. RWA	.323**	.349**	.184**	1		
5. SDO-DG	.321**	.270**	.234**	.421**	1	
6. SDO-OI	-.027	-.008	-.043	-.038	-.365**	1

** $p < .01$; * $p < .05$.

DG: Group dominance; OI: opposition to equality; RWA: Right wing authoritarianism; SDO: Social Dominance Orientation; RT-NFCS: Need for cognitive closure; RT-NFCS -P: Permanency; RT-NFCS -U: Urgency

Table 2*Items and Factorial Loads of Each Item to Each Factor on the EFA From the RT-NFCC Adaptation and Validation to the Argentinian Context*

RT-NFCC		
Items for Urgency	Factor loadings of the Urgency dimension	Factor loadings of the Permanency dimension
Item 1. En caso de incertidumbre, prefiero tomar una decisión inmediata, sea la que sea. Item 1. In case of uncertainty, I prefer to make an immediate decision, whatever it may be.	,659	,221
Ítem 3. Cuando estoy frente a varias alternativas potencialmente válidas, me decido a favor de una rápidamente y sin dudar. Item 3. When I find myself facing various, potentially valid, alternatives, I decide in favor of one of them quickly and without hesitation.	,706	,080
Ítem 5. Prefiero decidirme de acuerdo con la primera solución disponible, en vez de considerar en detalle qué decisión debería tomar. Item 5. I prefer to decide on the first available solution rather than to ponder at length what decision I should make.	,633	,168
Ítem 7. Cuando me enfrento a un problema, no pienso mucho sobre él y me decido sin dudar. Item 7. When I need to confront a problem, I do not think about it too much and I decide without hesitation.	,687	,037
Ítem 9. En situaciones de incertidumbre, prefiero tomar decisiones rápidas. Item 9. When I need to solve a problem, I generally do not waste time in considering diverse points of view about it.	,750	,229
Ítem 11. Suelo tomar decisiones rápidas y sin pensar demasiado. Item 11. Generally, I do not search for alternative solutions to problems for which I already have a solution available.	,765	,005
Item 13. Me gusta tomar decisiones rápidas. Item 13. After having found a solution to a problem I believe that it is a useless waste of time to take into account diverse possible solutions	,686	,007
Items for Permanency		
Ítem 2. Me siento muy incómodo cuando las cosas a mi alrededor no están en su sitio. Item 2. I get very upset when things around me aren't in their place.	,028	,658
Ítem 4. No suelo participar de discusiones sobre temas ambiguos y controvertidos. Item 4. Generally, I avoid participating in discussions on ambiguous and controversial problems.	,174	,564
Ítem 6. Prefiero estar con personas que tienen las mismas ideas y gustos que yo. Item 6. I prefer to be with people who have the same ideas and tastes as myself.	,076	,496
Ítem 8. Me siento incómodo cuando no logro dar una respuesta rápida a un problema que tengo. Item 8. I feel uncomfortable when I do not manage to give a quick response to problems that I face.	,105	,618
Ítem 10. Cualquier solución a un problema es mejor que permanecer en un estado de incertidumbre. Item 10. Any solution to a problem is better than remaining in a state of uncertainty.	,215	,496
Ítem 12. Me gustan más las actividades en las que está siempre claro qué es lo que hay que hacer y cómo hay que hacerlo. Item 12. I prefer activities where it is always clear what is to be done and how it need to be done.	-,032	,685
Ítem 14. Prefiero cosas a las que estoy acostumbrado que aquellas que no conozco y no puedo predecir. Item 14. I prefer things that I am used to over those I do not know and cannot predict.	,055	,701

In terms of internal consistency, the values of each factor ($\alpha > .70$) were acceptable and in line with the literature (Freiberg-Hoffmann et al., 2013; Arias et al., 2014). In this vein, reliability indices in the present sample are similar to those reported both by the original authors of the instrument (Pierro & Kruglanski, 2005) and other validations performed in different cultural contexts (De Grada et al., 1996; Horcajo et al., 2011; Moneta & Yip, 2004). In particular, the psychometric behavior of the items as well as the factorial structure are very similar to the Spanish version (Horcajo et al., 2011), which can be explained because both samples share the same language and a very similar form of idiosyncrasy due to the Spanish cultural heritage in Argentina. For example, the reliability analysis showed levels similar for both the urgency dimension ($\alpha = .83$ in the Argentinean adaptation and $\alpha = .79$ in the Spanish adaptation) and the permanence dimension ($\alpha = .72$ in the Argentinean adaptation and $\alpha = .70$ in the Spanish adaptation).

The CFA verifies the model proposed by the authors (Pierro & Kruglanski, 2005), displaying a good fit with the data collected in the field (Bollen, 1986; Hu & Bentler, 1999; Schermelleh-Engel et al., 2003).

The estimated parameters were all statistically significant ($p < .05$), with most of them reaching appropriate values, whereas, in line with the literature, the factorial loads in psychology tend to hover around the .50 mark (Beauducel & Herzberg, 2006). Only three of fourteen parameters estimated in the model did not attain the recommended values. These results suggest there is a predominance of explanatory variables contributing more than 50 % ($R^2 > .50$) to the observed variability in the data (Kline, 2005). Moreover, in line with what Roets & Van Hiel, (2006) found, the adapted NFCS correlates moderately with Social Dominance Orientation (SDO) and Right-wing authoritarianism (RWA), providing support for the external validity of the scale. This correlation can be explained because the NCC is associated with conservative, authoritarian, and hierarchical attitudes, as these attitudes all offer structure and certainty in the face of complexity. In this way, RWA and SDO function as “antidotes” to ambiguity, offering quick certainties, rigid structures, and clear hierarchies that satisfy the desire for order, simplicity, and closure characteristic of individuals high in NCC (Roets & Van Hiel, 2006).

It should be noted that most of the studies on the NFCC construct were conducted with university students; in this respect, the present study is no exception. This contributes to the comparability of the present results with research in which the NFCC was originally developed and tested. Nonetheless, this strength is also a limitation of the present research. Future research is therefore necessary to expand the samples with subjects from other demographics to further improve the scale's validity.

In conclusion, the results suggest that the present scale is a valid Argentinian adaptation of the RT-NFCC and therefore, it is a valid tool for conducting empirical research on the NFCC in Argentina. Due to a prior lack of an adapted measure, research on NFCC in Argentina has been very limited and its results have not been comparable to international research on NFCC.

This work will overcome this gap in the literature and extend research on NFCC in the Argentinian context. Extending the study of NFCC using a validated scale is important because NFCC underlies not only important social outcomes, such as extremism, authoritarianism, and prejudice, but also clinical outcomes. The need for cognitive closure (NCC) plays a decisive role in clinical psychology as it shapes how patients cope with uncertainty and ambiguity. For instance, low NCC in patients fosters cognitive flexibility and tolerance of uncertainty (Berenbaum et al., 2008). Given that intolerance of uncertainty has been linked to disorders such as obsessive-compulsive disorder and generalized anxiety disorder (Gentes & Ruscio, 2011), assessing NCC is crucial for tailoring interventions, strengthening the therapeutic alliance, and preventing diagnostic or therapeutic errors. The presently validated scale will allow us to assess these phenomena in Argentina.

Conflict of Interest

Los autores no tienen conflictos de interés.

Funding

This project was funded by the University of Buenos Aires, within the framework of the UBACyT 2023 Projects of the Faculty of Psychology.

References

- Altemeyer, B. (1981). *Right-Wing Authoritarianism*. Winnipeg: University of Manitoba Press.
- Arias, M. R. M., Lloreda, M. V. H., & Lloreda, M. J. H. (2014). *Psicometría*. Alianza Editorial.
- Baldner, C., Jaume, L. C., Pierro, A., & Kruglanski, A. W. (2019). The epistemic bases of prejudice: The role of need for cognitive closure. *TPM: Testing, Psychometrics, Methodology in Applied Psychology*, 26(3).
- Beauducel, A., & Herzberg, P. Y. (2006). On the performance of maximum likelihood versus means and variance adjusted weighted least squares estimation in CFA. *Structural Equation Modeling*, 13(2), 186-203.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107(2), 238.
- Berenbaum, H., Bredemeier, K., & Thompson, R. J. (2008). Intolerance of uncertainty: Exploring its dimensionality and associations with need for cognitive closure, psychopathology, and personality. *Journal of Anxiety Disorders*, 22(1), 117-125.
- Bollen, K. A. (1986). Sample size and Bentler and Bonett's nonnormed fit index. *Psychometrika*, 51(3), 375-377.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. *Sage Focus Editions*, 154, 136-136.
- Caro Simões dos Reis, M. I., & Pilati, R. (2021). Need for closure: Measure adaptation to Brazil and relation with moral foundations and prosociality. *Trends in Psychology*, 29(1), 86-103.
- Cohen, J. (1988). Set correlation and contingency tables. *Applied Psychological Measurement*, 12(4), 425-434.
- Cratylus. (1995). *Need for closure (Nederlandse versie)*. Amsterdam: Vrije Universiteit, Vakgroep Sociale Psychologie.
- De Grada, E., Kruglanski, A. W., Mannetti, L., Pierro, A., & Webster, D. (1996). Motivated cognition and group interaction: Need for closure affects the contents and processes of collective negotiations. *Journal of Experimental Social Psychology*, 35(4), 346-365.
- Dijksterhuis, A. P., Van Knippenberg, A. D., Kruglanski, A. W., & Schaper, C. (1996). Motivated social cognition: Need for closure effects on memory and judgment. *Journal of Experimental Social Psychology*, 32(3), 254-270.
- Dunn, T. J., Baguley, T., & Brunsden, V. (2014). From alpha to omega: A practical solution to the pervasive problem of internal consistency estimation. *British Journal of Psychology*, 105(3), 399-412.
- Etchezahar, E., Cervone, N., Biglieri, J., Quattrocchi, P., & Prado-Gascó, V. (2011). Adaptación y validación de la versión reducida de la escala de autoritarismo de derechas (RWA) al contexto argentino. *Anuario de investigaciones*, 18, 237-242.
- Etchezahar, E., Prado-Gascó, V., Jaume, L., & Brussino, S. (2014). Validación argentina de la Escala de Orientación a la Dominancia Social. *Revista Latinoamericana de Psicología*, 46(1), 35-43.
- Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175-191.
- Freiberg Hoffmann, A., Stover, J. B., de la Iglesia, G., & Fernández Liporace, M. (2013). Correlaciones policóricas y tetracóricas en estudios factoriales exploratorios y confirmatorios. *Ciencias Psicológicas*, 7(2), 151-164.
- Gärtnert, J., Jebram, L., & Harendza, S. (2024). Personality traits predict the need for cognitive closure in advanced undergraduate medical students. *BMC Medical Education*, 24(1), 1280.
- Gentes, E. L., & Ruscio, A. M. (2011). A meta-analysis of the relation of intolerance of uncertainty to symptoms of generalized anxiety disorder, major depressive disorder, and obsessive-compulsive disorder. *Clinical Psychology Review*, 31(6), 923-933.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2009). *Análise multivariada de dados*. Bookman Editora.
- Hasan, A. T. A. K., Moin, S. Y. E. D., & Figen, Ç. O. K. (2017). Examination of psychometric properties of the Need for Closure Scale-Short Form among Turkish college students. *Archives of Neuropsychiatry*, 54(2), 175.
- Holgado-Tello, F. P., Chacón-Moscoso, S., Barbero-García, I., Vila-Abad, E., & Delgado, B. (2015). Training program evaluation in non-standardized context: Completeness across factorial and multilevel analysis to obtain construct validity evidences. *Anales de Psicología*, 31(2), 725.
- Horcajo, J., Díaz, D., Gandarillas, B., & Briñol, P. (2011). Adaptación al castellano del Test de Necesidad de Cierre Cognitivo. *Psicothema*, 23(4).
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55.

- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129(3), 339.
- Kashima, E. S., & Loh, E. (2006). International students' acculturation: Effects of international, conational, and local ties and need for closure. *International Journal of Intercultural Relations*, 30(4), 471-485.
- Kemmelmeyer, M. (1997). Need for closure and political orientation among German university students. *The Journal of Social Psychology*, 137(6), 787-789.
- Kim, E. (2020). Validation of the Need for Closure Scale-Short Form. *Journal of the Korea Academia-Industrial Cooperation Society*, 21(10), 166-173.
- Kline, R. B. (2012). Assumptions in structural equation modeling. *Handbook of Structural Equation Modeling*, 111, 125.
- Kline, T. (2005). *Psychological testing: A practical approach to design and evaluation*. Sage.
- Kossowska, M. (2003). Różnice indywidualne w motywacji poznawczej [Individual differences in cognitive motivation]. *Przegląd Psychologiczny*, 46, 355-375.
- Kruglanski, A. W. (2001). Motivation and social cognition: Enemies or a love story? *International Journal of Psychology and Psychological Therapy*, 1(1), 33-45.
- Kruglanski, A. W., Ellenberg, M., Szumowska, E., Dragon, P., Pierro, A., Contu, F., Molinaro, E., Altungy, P., Jaume, L. C., Laurijssen, M., & Wang, M. (2025). Facing the unknown with hope or fear: On the affective reactions to outcome uncertainty. *European Review of Social Psychology*, 1-36.
- Kruglanski, A. W., & Webster, D. M. (1996). Motivated closing of the mind: "Seizing" and "Freezing". *Psychological Review*, 103, 263-283.
- Lomax, R. G., & Schumacker, R. E. (2004). *A beginner's guide to structural equation modeling*. Psychology Press.
- MacCallum, R. C., & Austin, J. T. (2000). Applications of structural equation modeling in psychological research. *Annual Review of Psychology*, 51(1), 201-226.
- Molinaro, E., Sensales, G., Kruglanski, A. W., Piccini, M. P., & Di Cicco, G. (2021). Social psychological basis of populism. *Giornale Italiano di Psicologia*. [manuscript in press]
- Moneta, G. B., & Yip, P. P. (2004). Construct validity of the scores of the Chinese version of the need for closure scale. *Educational and Psychological Measurement*, 64(3), 531-548.
- Muñiz, J., Elosua, P., & Hambleton, R. K. (2013). Directrices para la traducción y adaptación de los tests: segunda edición. *Psicothema*, 25(2), 151-157.
- Orehek, E., Fishman, S., Dechesne, M., Doosje, B., Kruglanski, A. W., Cole, A. P., ... & Jackson, T. (2010). Need for closure and the social response to terrorism. *Basic and Applied Social Psychology*, 32(4), 279-290.
- Paliwal, D., & Kumar, R. (2022). Exploring the five-factor structure of the need for closure scale on Indian samples using exploratory and confirmatory factor analysis. *European Journal of Psychology and Educational Research*, 5(1), 45-51.
- Pica, G., Chernikova, M., Pierro, A., Giannini, A. M., & Kruglanski, A. W. (2018). Retrieval-induced forgetting as motivated cognition. *Frontiers in Psychology*, 9, 2030.
- Pica, G., Jaume, L. C., & Pierro, A. (2020). Let's go forward, I forgive you! On motivational correlates of interpersonal forgiveness. *Current Psychology*, 1-9.
- Pierro, A., & Kruglanski, A. W. (2005). Revised need for cognitive closure scale (Unpublished manuscript). Università di Roma, "La Sapienza", Rome, Italy.
- Pierro, A., & Kruglanski, A. W. (2008). "Seizing and freezing" on a significant-person schema: Need for closure and the transference effect in social judgment. *Personality and Social Psychology Bulletin*, 34(11), 1492-1503.
- Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, 67, 741-763.
- Roets, A., & Van Hiel, A. (2006). Need for closure relations with authoritarianism, conservative beliefs and racism: The impact of urgency and permanence tendencies. *Psychologica Belgica*, 46, 235-252.
- Roets, A., & Van Hiel, A. (2007). Separating ability from need: Clarifying the dimensional structure of the need for closure scale. *Personality and Social Psychology Bulletin*, 33(2), 266-280.
- Roets, A., & Van Hiel, A. (2011). Item selection and validation of a brief, 15-item version of the Need for Closure Scale. *Personality and Individual Differences*, 50(1), 90-94.
- Roets, A., Van Hiel, A., & Cornelis, I. (2006). The dimensional structure of the Need for Cognitive Closure Scale: Relationships with "seizing" and "freezing" processes. *Social Cognition*, 24, 22-45.
- Schermelele-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online*, 8(2), 23-74.
- Shiloh, S., Koren, S., & Zakay, D. (2001). Individual differences in compensatory decision-making style and need for closure as correlates of subjective decision complexity and difficulty. *Personality and Individual Differences*, 30(4), 699-710.
- Sidanius, J., & Pratto, F. (1999). *Social Dominance: An intergroup theory of social hierarchy and oppression*. Cambridge: University Press.
- Sulejmanov, F., Spasovski, O., & Platt, T. (2018). The development of the humor structure appreciation scale and its relation to sensation seeking inventory and need for closure scale. *The European Journal of Humour Research*, 6(1), 124-140.
- Suzuki, K., & Sakurai, S. (2003). The construction, reliability and validity of a Japanese Need for Closure Scale. *Shinrigaku Kenkyu: The Japanese Journal of Psychology*, 74(3), 270-275.
- Švedas, E., & Erentaitė, R. (2014). Epistemic motivation as predictor of social prejudice: relationship between need for closure and ambivalent sexism. *International Journal of Psychology: A Biopsychosocial Approach* (15), 69-89.
- Van Hiel, A., Pandelaere, M., & Duriez, B. (2004). The impact of need for closure on conservative beliefs and racism: Differential mediation by authoritarian submission and authoritarian dominance. *Personality and Social Psychology Bulletin*, 30(7), 824-837.
- Webber, D., Babush, M., Schori-Eyal, N., Vazeou-Nieuwenhuis, A., Hettiarachchi, M., Bélanger, J. J., ..., & Gelfand, M. J. (2018). The road to extremism: Field and experimental evidence that significance loss-induced need for closure fosters radicalization. *Journal of Personality and Social Psychology*, 114(2), 270-285.
- Webster, D. M., & Kruglanski, A. W. (1994). Individual differences in need for cognitive closure. *Journal of Personality and Social Psychology*, 67(6), 1049.
- Yasin, M., & Khukhlaev, O. (2023). Russian-language adaptation of the questionnaire D. Webster and A. Kruglanski "The need for cognitive closure". *Psychology. Journal of Higher School of Economics*, 20(2), 282-299.
- Yilmaz, H. (2018). The Turkish adaptation of 15-Item version of the Need for Cognitive Closure Scale and relationship between thinking and decision-making styles. *Universal Journal of Educational Research*, 6(8), 1710-1722.