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Article

Psychometric properties and invariance of the Inventory of Ambivalent Classism (ICA) in Peru

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Abstract: Objective: This research analyzed the psychometric properties of the Ambivalent Classism Inventory (ICA) in Peru. **Methodology:** A critical review of literature related to poverty, inequality, and structural gaps was conducted, involving 882 participants aged 14 to 89 years (M = 24.61, SD = 9.07). **Results:** Exploratory-confirmatory factor analyses were satisfactory, finding a similar factorial structure to the original scale and the adaptation (hostile classism, protective paternalism, and complementary class differentiation). Regarding items, there was a reduction, leaving only 12; however, comparing alternative models, the three-factor structure with 12 reagents showed adequate fit (χ^2 = 214.588, df = 51, p < 0.001; CFI = 0.996; RMSEA = 0.060; SRMR = 0.033), allowing for invariance testing. Practical Implications: The scale allows for investigating attitude profiles of individuals with privileged social class. **Contribution:** The instrument is a valuable contribution, considering that the nation has a high poverty rate, leading to economic, political, and social inequality among the population.

Keywords: poverty; inequality; classism; validation; measurement; Peru; invariance

1. Introduction

The study of poverty has different approaches, generating problems not only in the political or economic sphere but also in the social, educational, and cultural realms. In this sense, sociology analyzes poverty as a social construct, focusing its study not only on people experiencing poverty but also on the political, institutional, and social structures that naturalize stigmas, expose the poor, and legitimize inequalities, thus consolidating privileges for sectors with more significant economic resources (Cañadas and Brussino, 2023). Similarly, psychology studies poverty in mental health (Ridley et al., 2020), as well as the attitudes and stereotypes held about poor people. These stereotypes commonly associated with impoverished individuals characterize them as substance abusers (alcohol and drugs), lazy, unwilling to work, undervaluing education, and reliant on government systems. Although structural barriers that cause these individuals to lack opportunities are identified, most people believe that poverty stems from their deficiencies rather than from existing inequality (Rivera Rosales et al., 2022).

However, according to the stereotype content model, there can be a dual opinion (ambivalence), referring to aspects of warmth or competence regarding a person or social group such as Afro-descendants, Jews, women, or social classes (Fiske et al., 2002). Concerning social classes, the activation of stereotypes and social justice portrays the rich as low in warmth or cold and the poor as high in warmth, thereby enhancing their perception of personal and systemic justice (Fu et al., 2019). This

categorization based on socioeconomic status is present in societies with inequality because the attribution of warmth and competence justifies the class system, which is evident in people's ambivalent perception of individuals from high and low socioeconomic backgrounds. The former group is seen as competent but cold, while the latter group is considered warmer than competent or as warm as competent (Durante et al., 2017).

Therefore, ambivalent views can exist within a country; if welfare policies are proposed for poor people, they may be believed to be ineffective or deficient (Sainz et al., 2018; Sainz et al., 2019). However, positive aspects are also attributed to them, such as gratitude, thus revealing the inequality societies seek to conceal to maintain system stability. Negative attitudes and income inequality in disadvantaged social groups are therefore compensated for and accepted with positive social images, with these stereotypes masked by positive aspects (Durante et al., 2017; Fiske et al., 2002).

Furthermore, attitudes of ambivalent classism reflect the socio-structural relationships between poor and non-poor individuals, as ideologies that seek to maintain social hierarchies offer discourses that justify the unequal system. These attitudes contain both hostile arguments (outright negative or less explicit) and benevolent ones (subjectively flattering but condescending) (Jordan et al., 2021).

Considering the above, Jordan et al. (2021) developed this ambivalent classism into a measurement inventory based on ambivalent sexism theory (Glick and Fiske, 1996), obtaining three factors: hostile classism (where poor people are depicted as lacking drive, manipulative, untrustworthy, lacking any skills, and needing to be dominated and controlled by non-poor people), protective paternalism (the belief that poor people are like children who require care and guidance to become productive individuals), and complementary class differentiation (the belief that poor people are more humble, warm, and friendly than non-poor people).

In Peru, due to the pandemic, the health and economic crisis was the worst in modern times, with the country being one of the most affected worldwide (Unicef, 2020). According to the National Institute of Statistics and Informatics (INEI, 2022), poverty in 2021 affected 25.9% of the Peruvian population. Although this is lower than the figures for 2020, poverty rates remain above pre-pandemic levels, posing critical challenges for different regions that, regardless of the national perspective, still face unfavorable conditions. An example of this is Puno, which has become the region with the highest poverty rates in the country (IPE, 2022). On the other hand, according to the Ministry of Economy and Finance (2022), Cusco is among the poorest cities in the country, with districts like Lares and Omacha having total poverty rates of 97.8% each and 89.2% and 82.9% extreme poverty respectively.

In this regard, the present research aims to contribute theoretically and instrumentally to the field of science. From psychological literature, classism has received some attention due to the complexity it encompasses. The variable is related to the import of concepts and sociological frameworks for a greater compression of categories such as social class and socioeconomic level; At an individual level, it has led to difficulties in conducting research, as well as addressing the topic in psychological practice (Martinez-Muñoz and Rabbia, 2022). This topic is important to be studied, analyzed and evaluated from the psychology and sociology of work, therefore, classism has been little explored, making it necessary to carry out the study

to try to cover theoretical gaps (Manky, 2019). Currently, existing theories on classism, as mentioned by Jordan et al. (2021), do not consider benevolent beliefs. Therefore, considering both hostile and benevolent perspectives of classism, this study can offer insights into stereotypes towards the poor. If these stereotypes are positively reinforced in society, it could perpetuate inequality and class hierarchies. Methodologically, this study provides a new and innovative instrument to measure this issue in Peru. The societal interaction surrounding these ideas may explain various conflicts within society. Additionally, it serves as a reference for future research that considers this ambivalence in other Latin American countries. Building upon the original study's development and validation, as well as its adaptation to Spanish with Mexican samples (Jordan et al., 2021; Sainz et al., 2021), further studies can investigate the presence of these perspectives and elucidate significant differences among these countries.

Therefore, this study aims to analyze the psychometric properties of the Ambivalent Classism Inventory (ACI) in Peru.

2. Methodology

2.1. Participants

A non-probabilistic sample of 882 persons aged 14 to 89 years (M = 24.61, SD = 9.07) who was selected intentionally; the inclusion criteria considered were: being over 14 years of age, being a literate person and not having severe sensory problems. Of these participants, 57.1% were female and 42.9% were male. Regarding marital status, 83.1% were single, 5.7% were married, 5.6% were cohabiting, 5% had a partner, and 0.7% were divorced. The predominant level of education was university (67.0%), followed by technical (13.8%), postgraduate (4.2%), secondary (13.2%), primary (1%), and no formal education (0.8%). Among those with higher education, 72% reported studying at a public institution, while 28% attended a private one. In terms of occupation, 48.4% were students, 25.7% were both students and employed, 12.1% were employees or dependent workers, 9.2% were self-employed, 2% were actively seeking employment, 1.2% were solely engaged in household chores, 0.9% were inactive, and 0.3% were retired or pensioners. The average monthly income was 2276.50 Peruvian soles. Regarding residential areas, 44.7% lived in urban areas, 18.5% in housing associations, 17.3% in shantytowns, 9.9% in human settlements, 6.2% in residential areas, and 3.4% in housing complexes. As for housing tenure, 43.8% owned their homes, 31% lived in family-owned properties, 22.4% rented, 1.8% had other arrangements, and 1% were in a trust-based agreement known as "anticresis." Regarding access to social programs, 89.8% reported no access to any program, 3.1% had access to the "vaso de leche" (milk cup) program, 1.7% to the "pensión 65" (pension 65) program, 0.7% to the "cuna más" and "juntos" programs, 0.6% to community dining halls, and 3.5% to other social programs.

2.2. Instruments

The Ambivalent Classism Inventory (ICA), developed in the USA (Jordan et al., 2021) and adapted into Spanish in Mexico (Sainz et al., 2021), was utilized in this

study. It comprises a total of 20 items grouped into three factors: Hostile Classism (HC, 12 items), Paternalistic Protection (PP, four items), and Complementary Class Differentiation (CCD, four items). The inventory employs a seven-point Likert scale (1 = completely disagree; 7 = completely agree). The inventory demonstrated good internal consistency across its factors (HC: $\alpha = 0.94$; PP: $\alpha = 0.89$; CCD: $\alpha = 0.83$).

Additionally, the Right-Wing Authoritarianism Scale (RWA), adapted by Zakrisson (2005) and translated by Rottenbacher and Schmitz (2012), consists of 15 items and employs a six-point Likert scale (1 = Totally disagree; 6 = Totally agree). The scale exhibited adequate internal consistency ($\alpha = 0.88$).

2.3. Procedure

To assess the psychometric properties of the inventory, the review began with an examination of the items from the Spanish adaptation conducted with a Mexican population (Sainz et al., 2021). This review was essential to adjust the items to a language that would be comprehensible in the Peruvian context. Four experts in Psychology, Social Work, and Sociology reviewed each item. Modifications were made, such as changing "charitable organizations" to "social organizations" (Items 10, 11, 13, 14, 15, 16) and "harsher" to "stronger" (Item 20). This evaluation was finalized through consensus, which was accepted by all. Once the instrument was reviewed, it was digitized using the Google Forms platform to allow for online and written completion. This process was carried out using the online survey method (Vehovar and Lozar-Manfreda, 2017). For data collection, a non-probabilistic convenience sampling technique was implemented, following the recommendations of Otzen and Manterola (2017); Rincón and Barreto (2016).

The inventory title, team contact information, study objective description, informed consent, and anonymity and confidentiality of the collected data were included. Permission was sought from the relevant authorities to assess the participants.

2.4. Statistical and psychometric analysis

Statistical software R and RStudio were utilized to conduct Confirmatory Factor Analysis (CFA) to assess the model fit with the 20 items and to observe if these items were adapted to the Peruvian context. If the model did not fit satisfactorily, a new version with an appropriate fit would be proposed. Exploratory Factor Analysis (EFA) was performed using the FACTOR 12.03.02 program (Ferrando and Lorenzo-Seva, 2017).

The following packages were used to export the data and conduct the analyses: haven, tidyverse, psych, lavaan, and semPlot. The Weighted Least Squares Mean and Variance adjusted estimator (WLSMV) was selected for CFA due to its robustness in handling ordinal indicators (Kline, 2016). Goodness-of-fit indices were assessed according to the following criteria: values ≥ 0.90 and ≥ 0.95 for CFI, and values ≤ 0.8 and ≤ 0.05 for RMSEA and SRMR, respectively, were considered appropriate (Keith, 2015). The suitability of the matrix for conducting EFA was tested using the Kaiser Meyer Olkin (KMO) and Bartlett's Sphericity tests, and the number of factors to retain

was determined using parallel analysis, following recommendations from various authors (Hayton et al., 2004; Izquierdo et al., 2014).

Reliability was evaluated using Cronbach's alpha coefficient. The Right-Wing Authoritarianism scale (RWA) (adapted by Zakrisson (2005), and translated by Rottenbacher and Schmitz (2012)) was employed regarding discriminant validity. Measurement invariance was assessed using R and RStudio, and changes in CFI and RMSEA values were inspected. Non-invariance was indicated when $\Delta CFI \geq 0.010$ and $\Delta RMSEA \geq 0.015$ (Svetina et al., 2019).

3. Results

3.1. Descriptive analysis

The descriptive statistics of the questionnaire items are shown in **Table 1**, mean, skewness, and kurtosis; it is observed that the results of skewness and kurtosis do not present values exceeding ± 1.96, indicating that a normal distribution is present.

Table 1. Descriptive results.

Items	*M*	SD	Skewness	Kurtosis
ica02	3.13	1.82	0.54	−0.85
ica05	3.07	1.75	0.54	−0.73
ica06	2.95	1.7	0.58	−0.65
ica08	2.98	1.7	0.61	−0.56
ica09	2.93	1.67	0.58	−0.58
ica13	4.73	1.99	−0.50	−1.00
ica14	4.65	1.92	−0.50	−0.93
ica15	4.7	1.89	−0.57	−0.78
ica16	4.71	1.88	−0.54	−0.83
ica18	4.07	1.78	−0.11	−0.91
ica19	4.15	1.77	−0.13	−0.90
ica20	4.09	1.86	−0.05	−1.04

Note: *M* = mean, SD = standard deviation.

3.2. Exploratory factorial analysis

The results of the EFA for this inventory revealed a favorable factorization matrix, with a significant Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (KMO = 0.87) and Bartlett's test of sphericity ($X2$ (66) = 9848.6, $p < 0.001$). Parallel analysis by Horn (1965) and oblimin rotation identified three independent factors that explained 81.22% of the total variance. **Table 2** displays the factor loadings, with items 02, 05, 06, 08, and 09 grouped under the first factor (Hostile Classism), items 13, 14, 15, and 16 under the second factor (Paternalistic Protectionism), and items 18, 19, and 20 under the third factor (Complementary Class Differentiation).

Table 2. Exploratory factor analysis.

	Factorials weights		
	F1	**F2**	**F3**
Without supervision, poor people will likely spend all their money on drugs or alcohol.	0.611		
Many poor people lack the necessary skills to take care of themselves.	0.790		
Poor people, generally, make poor decisions that would enable them to succeed in life.	0.867		
Poor people need more initiative to get ahead.	0.833		
Overall, if you give poor people an inch, they'll take a mile.	0.810		
Social organizations should advise poor people on how to manage their finances intelligently.		0.822	
Poor people should receive additional help to make good decisions regarding their health.		0.912	
Social organizations should assist poor people in managing social assistance intelligently.		0.981	
Social organizations should guide poor people to make better life decisions.		0.931	
Poor people are friendlier than others who are not poor.			0.883
Poor people are humbler than others who are not poor.			0.987
Poor people are stronger and endure more than others who are not poor.			0.874

3.3. Confirmatory factorial analysis

Table 3 presents the goodness-of-fit indices of the four models used to evaluate the ICA. None of the first three models with the 20 items from the scale itself achieved adequate fit. Both CFI and RMSEA needed to meet the standards. These results were decisive in conducting the EFA, determining a three-factor model with 12 items, which was the only one to achieve a satisfactory fit. Therefore, this model was retained for further validity and reliability analysis, referred to as ICA-12. **Figure 1** displays all standardized factor loadings of this new version, ranging from 0.61 to 0.98, suggesting acceptable results for this instrument.

Table 3. Confirmatory factorial analysis.

Models	χ^2 **(gl)**	**RMSEA**	**CFI**	**SRMR**
3 factors (20 items)	3420.158 (167)	0.149	0.940	0.092
Unidimensional	11,478.511 (170)	0.275	0.790	0.252
2 factors	4022.080 (169)	0.161	0.928	0.109
3 factors (12 items)	214.588 (51)	0.060	0.996	0.033

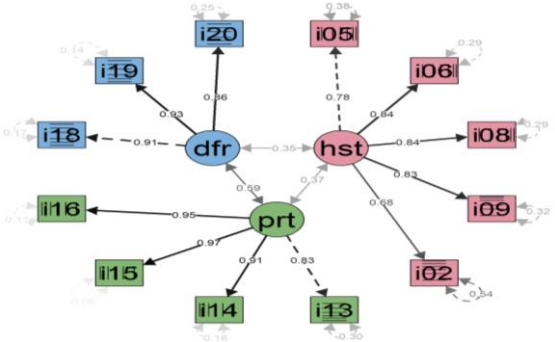

Figure 1. Diagram of the final model.

Note: Standardized weights are shown. hst = hostile classism, prt = protective paternalism, and dfr = complementary class differentiation.

3.4. Internal consistency and discriminant validity

The internal consistency of the three factors of the ICA-12 presented good results (hostile classism α = 0.87, protective paternalism α = 0.94, and complementary class differentiation α = 0.91). Likewise, **Table 4** shows the correlations of RWA and the three subscales of the ICA-12, which turned out to be weak.

Table 4. Means, standard deviations, and correlations with confidence intervals.

Variable	*M*	SD	1	2	3
1) Hostile classism	15.07	6.98			
2) Protective paternalism	18.79	7.07	0.36**		
			[0.30, 0.42]		
3) Complementary class differentiation	12.31	4.99	0.33**	0.55**	
			[0.27, 0.39]	[0.50, 0.59]	
4) Right-wing authoritarianism	50.92	7.25	0.16**	−0.06	0.09**
			[0.09, 0.22]	[−0.13, 0.01]	[0.02, 0.15]

Note: *M* and SD represent the mean and standard deviation, respectively.

3.5. Measurement invariance

To complete the analysis, the dimensionality of the instrument was evaluated with invariance tests. The equivalence between sex (men and women), university (private and public) and age (young people and adults) was analyzed. In **Table 5**, all variables reached the scalar level (this level of invariance is required to be able to compare scores between the groups that were evaluated). Likewise, the residual or strict level was reached satisfactorily in all these groups.

Table 5. Invariance results.

Model	Robust χ^2 (gl)	*p*	CFI	RMSEA	Model comparison	ΔCFI	ΔRMSEA
By gender							
M1	181.335 (102)	<0.01	0.977	0.042			
M2	190.013 (111)	<0.01	0.977	0.040	M1 vs. M2	0	−0.002
M3	205.556 (120)	<0.01	0.975	0.040	M2 vs. M3	−0.002	0
M4	223.849 (132)	<0.01	0.973	0.040	M3 vs. M4	−0.002	0
By university							
M1	185.746 (102)	<0.01	0.971	0.047			
M2	179.857 (111)	<0.01	0.976	0.041	M1 vs. M2	0.005	−0.006
M3	190.119 (120)	<0.01	0.976	0.039	M2 vs. M3	0	−0.002
M4	195.474 (132)	<0.01	0.978	0.036	M3 vs. M4	0.002	−0.003
By age							
M1	183.700 (102)	<0.01	0.976	0.043			
M2	190.085 (111)	<0.01	0.977	0.040	M1 vs. M2	0.001	−0.003
M3	207.855 (120)	<0.01	0.975	0.041	M2 vs. M3	−0.002	0.001
M4	214.009 (132)	<0.01	0.976	0.038	M3 vs. M4	0.001	−0.003

4. Discussion

The present research addressed the phenomenon of ambivalent classism in Peruvian society, specifically attitudes towards poverty and inequality. The sociological, psychological, and economic dimensions of these attitudes were explored through an interdisciplinary approach. The results shed light on the complexity of perceptions and stereotypes about poverty and their influence on social structure and political decision-making.

This study aimed to analyze the psychometric properties of the Ambivalent Classism Inventory (ICA) in Peru. The results obtained in both exploratory and confirmatory factor analyses were satisfactory, as the factorial structure was similar to the original scale and the adaptation. Referring to the three factors—hostile classism, protective paternalism, and complementary class differentiation—there was a reduction in items, leaving only 12 items. However, the three-factor structure with 12 items showed adequate fit due to the comparison of alternative models. Regarding the correlations between the three factors, it was found that hostile classism positively correlated with protective paternalism. However, in the case of hostile classism with complementary class differentiation, the correlation was positive, unlike the results of the original study (Jordan et al., 2021) and the adaptation with a Mexican sample (Sainz et al., 2021), where the correlation was negative. This suggests that for the Peruvian model, insulting beliefs towards poor people are complemented by flattering ideas that consider the poor as more humble, friendly, and warm. In a reality that is based on the cultural and social context: the history and social structure marks a milestone, the history of inequality and discrimination, both in economic and social terms, reflected in class perceptions, the marginalization and exclusion of some ethnic groups they can add an additional layer of complexity to classism.

As mentioned, economic inequality makes a significant difference, adding to the poverty indices, social mobility and economic opportunities can vary and affect attitudes towards different social classes, linked to this is the labor structure, the high percentage of informality and Lack of access to well-paid jobs are common problems in Peru, which could influence opportunities for social advancement within this structure. Therefore, further research is needed to explore this relationship, as it may present differently with other populations.

The reliability of the inventory showed satisfactory results, approaching those of the original study, where the alpha coefficients were more significant than 0.70. In the present research, the resulting coefficient for the hostile classism factor (CH) was lower (0.87) compared to the validation in the Mexican sample, where the coefficient was 0.94. For the protective paternalism factor (PP), the alpha of the present study (0.94) was higher than in the study by Sainz et al. (2021), with $\alpha = 0.89$. Similarly, a similar result was evidenced for the complementary class differentiation (DCC) factor, as the alpha coefficient was higher at 0.91 compared to the adaptation study of the ICA $\alpha = 0.83$. Regarding evidence of validity based on the relationship with other variables, the discriminant validity showed low correlations, aligning with the original research. This suggests that ambivalent classism perspectives are unrelated to Right-Wing Authoritarianism (RWA), as RWA measures support for authoritarian leaders

and group-based hierarchies, reflecting general ideals of how society should function (Sibley et al., 2007).

Therefore, this study provides a solid foundation for future research addressing ambivalence in attitudes toward poverty in other Latin American contexts. It also encourages further exploration of the relationship between these attitudes and socioeconomic variables. Invariance analysis with this new version of the ICA allows for comparisons between gender (male and female), university (private and public), and age (young and adult). Some studies have considered gender to assess hostile classist and protective paternalist attitudes, showing that these attitudes are more attributed to men than women in poverty situations, with men being perceived as responsible for the case and seen as more incapable and in need of control and assistance (Alcañiz-Colomer et al., 2023). Martínez-Muñoz and Rabbia (2022), through a review, it was found that the University and its population is a common setting for studies that take classism into consideration, since research shows that poor and students of color feel ignored and isolated from the university experiencing difficulties in accessing academic results within environments that are institutionally classist. In relation to sex, there are differences in attitudes towards poor people, since women tend to show more benevolent attitudes compared to men (Cozzarelli et al., 2001). Furthermore, women also show fewer hostile class attitudes than men, which is attributed to traditional gender roles and differential socialization (Sibley and Duckitt, 2008). This difference can be attributed to the inequality derived from gender roles, which can generate greater sensitivity in women towards the injustices or disadvantaged situations faced by other groups, such as people living in poverty (Cozzarelli et al., 2001; Glick and Fiske, 2001; Sibley and Duckitt, 2008). Additionally, investigating the relationship between ambivalent classism and other social phenomena or problems, such as social mobility, political participation, or a new pandemic that recently highlighted social inequalities, could be beneficial.

Likewise, age differences influenced by socialization in varied social, economic and cultural contexts can significantly shape attitudes and perceptions towards social classes. According to Fiske (2018), stereotypes related to social classes have both positive and negative components. This implies that people of different ages may differ in the extent to which they hold these stereotypes. For example, younger generations, who have grown up in more diverse and socially mobile environments, tend to have fewer rigid attitudes toward social class (Jost et al., 2004). This is due in part to their greater exposure to values of equality, diversity and social inclusion. As a result, young people tend to show less classist or discriminatory attitudes towards other social groups. In contrast, older generations, who were socialized in less diverse contexts and with less social mobility, may maintain more traditional and stereotypical attitudes toward social classes. These attitudes are influenced by the predominant norms and values at their time of socialization, which may be less inclusive and more hierarchical (Bullock and Limbert, 2003).

The adaptation of the "Ambivalent Classism Inventory" (ICA) for the Peruvian context allowed us to understand the dual nature of attitudes towards poor people. This focus on ambivalent attitudes reflects the coexistence of negative and positive stereotypes regarding impoverished individuals. Therefore, in line with previous literature on stereotypes, the activation of these stereotypes may depend on the context

itself, referring to the malleability of automatic stereotype activation and prejudices, where the context may guide the perception and social judgment of the individual or group (Blair, 2002; de Lemus et al., 2014). In the study, non-probabilistic convenience sampling was used due to time and resource limitations. As pointed out by Etikan et al. (2016), this type of sampling involves selecting the most accessible participants and willing to participate. Although this approach does not guarantee the representativeness of the sample with respect to the target population, it can be a practical option when it is not possible to use probabilistic methods, the sample consisted mainly of young people with higher education, and the adult sample presented different educational levels: secondary, primary, and no education. When comparing the perspectives of individuals according to their education, education plays a crucial role in predicting classist ideas. This does not imply that education prevents the emergence of classist ideas but that people with education tend to have lower levels of classism. However, they may engage in mild forms of paternalism or classism.

The results of this study highlight the importance of considering ambivalent attitudes toward poverty in formulating public policies and social intervention strategies. The fact that benevolent attitudes toward poor people coexist with hostile attitudes underscores the complexity of addressing inequality and poverty from a single perspective. Identifying this phenomenon calls for rethinking communication and awareness-raising strategies aimed at society, focusing on challenging negative stereotypes and fostering a more empathetic and realistic understanding of the barriers faced by people in poverty. By identifying these differences, it is considered that attitudes of ambivalent classism should reflect the socio-structural relationships that exist between poor and non-poor individuals, as ideologies that seek to maintain social hierarchies offer discourses that justify the unequal system, also containing hostile (openly negative or not so explicit) as well as benevolent (subjectively flattering but condescending) arguments (Durante and Fiske, 2017; Jordan et al., 2021).

The limitations are not exempt in this research, one of which is the composition of the samples; due to sociodemographic aspects, others (ethnicity and province of origin) should be added, allowing for a more systematic analysis of the cultural particularities present in Peru. On the other hand, focusing on a specific population and using a single measure of attitudes may restrict the generalization of the results. It is suggested that future research include more diverse samples and utilize various methods to address the complexity of ambivalent attitudes. Regarding the study participants, they were selected through non-probabilistic convenience sampling. This selection method may introduce selection bias that could limit the ability to generalize the study results to a broader population. Therefore, it is recommended that future research use stratified sampling to obtain a more representative sample of the target population. Furthermore, it would be important for future studies to replicate the findings with larger sample sizes to increase the robustness and generalizability of the results. Despite the limitation of the sample size in the present study, it has been shown that, if a factor has four or more factor loadings greater than 0.60, as was observed in this case, the measure is reliable, regardless of the size of the factor. the sample (Guadagnoli and Velicer, 1991). With this in mind, a sample of 100 can also be used (MacCallum et al., 1999). Data collection was online. Therefore, verifying some

sociodemographic data of the participants could not be confirmed. Hence, self-selection bias may be present. In relation to measurement invariance, some limitations must be considered, the non-probabilistic sample selection for convenience, so there may be differences between the subgroups compared in this study. Furthermore, due to the cross-sectional nature of the study, it is not possible to assess the stability of the measurement over time, as this is not a longitudinal study (Leitgöb et al., 2023).

However, the strengths should be considered, which refer to using the ICA-12 at the research level for evaluating these ideas present in the Peruvian population. Also, the ICA-12 is a shorter version than the original proposal, but the psychometric standards remain high; this reduction is beneficial for saving time and associated decision-making, as individuals may be more likely to participate and complete the instrument, thereby reducing the likelihood of study abandonment due to its length.

In conclusion, this research contributes to understanding ambivalent attitudes toward poverty in the Peruvian context. Additionally, measurement invariance will allow for comparing the groups considered in the present study and can be applied individually or collectively. The coexistence of hostile and benevolent attitudes poses challenges and opportunities for constructing more inclusive policies and promoting a fairer society. Recognizing ambivalence in attitudes invites deep reflection on constructing national identity and promoting equity in all social and economic dimensions.

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