

Article

Can We Measure Social Justice? Development and Initial Validation of a Tool Measuring Social Justice Through Values

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Abstract: The Social Justice Values (SJV) scale, as presented in this work, was developed to assess individuals' attitudes and behaviors towards the values of social justice. Exploratory factor analysis and reliability analysis were employed to ascertain the validity and reliability of the SJV instrument. The investigations revealed that the scale consists of 17 items across three factors, namely, instrumental values of social justice, social terminal values of social justice, and personal terminal values of social justice. The Cronbach alpha coefficient for the entire scale was 0.893. The nomological validity of the proposed scale was assessed by testing its association with two relevant scales: Distributive Justice and Multidimensional Belief in A Just World. Although the investigations indicated that this scale is a reliable instrument for assessing social justice through values among university students, further studies are required to confirm its validity with other samples.

Keywords: social justice; terminal values; instrumental values; scale construction; factor analysis



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1. Introduction

The study of human values remains a prominent focus within the field of social research. The role of values in explaining social behavior and societal changes can be attributed to the fact that each individual and each society possesses a unique value system and a set of priorities that are distinct from one another [1]. A value is a fundamental belief or principle that serves as a guide for one's personal, professional, and political conduct and shapes the way an individual or group strives to attain a desired situation [2]. As posited by Rokeach [3], values may be understood as more abstract convictions than a discrete attitude or belief, transcending the specific object or situation in question. They are conceptualized as general and persistent beliefs that a specific mode of behavior or ultimate state of existence is preferable, either personally or socially, to its opposite [4,5]. Schwartz [6] conceptualizes values as aspirational objectives that function as a compass for individuals navigating their lives, with varying degrees of significance [4]. Oleś [7] employs an alternative approach, defining values in terms of objectivism and subjectivism. One may posit that these qualities can be considered both objective and subjective. They may be more or less precisely known and discovered by the individual, or they may result from the individual's activity and evaluation of the environment, thus giving them meaning [5].

At the same time, it is widely recognized in academic literature that the conceptual notion of justice is closely intertwined with the specific values that individuals prioritize and deem significant. Ancient thinkers engaged with the concept of social justice, which continues to be a topic of interest among philosophers and social scientists to the present day. The question of "why people are interested in justice" has been addressed by social science and philosophy in a variety of ways across history. However, there has been a consistent underlying premise that as a social species, it is in humanity's interest to concern itself with the concept of justice [8]. Thus, determining the precise meaning of social justice remains a

challenging endeavor, largely because it is inherently subjective and contingent upon the individual perspective [9]. In general, the concept of justice can be defined as the act of determining what is morally right or just based on reason and evidence. This concept is also informed by an inherent moral nature, which determines the degree of fairness and equity in any given situation [10]. Justice is considered a fundamental value of human life by several researchers. The rationale is that social flourishing at both the individual and societal levels is contingent upon the overarching principle of justice governing the distribution of responsibilities, resources, and procedures, including the enforcement of justice standards [11,12]. Despite its initial conceptualization as a mechanism for regulating exchanges and resolving social conflicts, subsequent research has demonstrated that the role of justice in people's social interactions with other individuals, groups, and societies is considerably more intricate [13].

In the context of Plato's philosophical framework [14], justice is regarded as an integral aspect of human well-being. The author postulated that justice is derived from the harmonious alignment between individual desires, spirit, and reason. This concept of justice is inherently linked to the notion of social justice. It is noteworthy that Plato's concept of justice is devoid of any reference to the principle of equality. He held the view that social stratification was vital for societal functioning. In consequence, he considered justice to entail the distribution of goods commensurate with each individual's position in the social order [14,15]. Palton's conceptualization of justice was subsequently adopted and elaborated by Aristotle in his *Nicomachean Ethics* [16], which serves as a foundational text for contemporary discourses pertaining to the allocation of resources. He posited that social order is maintained through the enforcement of legal principles, which are reflected in the regulation of resources and benefits [15,16]. Regarding corrective justice, Aristotle [17] posited that it is intended to rectify the injustices resulting from unequal distributions of gains and losses between two individuals. The author asserts that the individual bears a moral obligation to provide compensation for the consequences of harmful acts [17,18]. However, as was the case with Plato, Aristotle believed that people were not inherently equal. Consequently, the concept of justice, and thus equality, was only applicable to Athenian property owners, that is, individuals situated within the same stratum of a hierarchical social order [15,16]. The concept of justice re-emerged in Western societies during the 17th and 18th centuries, coinciding with the rise of rationalism and secular humanism [15]. During that period, Luigi Taparelli [19] proposed the term "social justice", suggesting that fundamental changes could be made to the structure of society to create a more equitable and fairer environment for all members of the community. Consequently, in developing the concept, he employs a meticulous approach, delineating a precise notion of humanity as a collective entity and of society as a complex and interdependent system. The author posits that humans were created as intelligent beings, endowed with the faculties of will and knowledge, while society is defined by a collective identification with a unity of purposes, whose principal tenet resides in the law of goodwill and justice. Accordingly, Taparelli [19] established the notion of "social right" (*diritto sociale*), which is derived from the concept of order and develops in accordance with the principle of reason. It can be considered to represent the voice of a moral order, which strives to establish social justice between individuals. At the universal level, this approach aims to establish the foundation of societal structures in the fundamental nature of humanity by integrating the initial tenet of morality with the intrinsic reality of human experience. At the specific level, philosophy elucidates the unique actions and behaviors that define the human condition. To rephrase, if society is deemed to be a fundamental aspect derived from human nature, then it stands to reason that the moral order—in the sense of a system oriented towards the pursuit of moral virtue and truth—must be at its core. The author's concept of social justice reflects two distinct ideological perspectives. The primary moral tenet is the concept of "doing good", which is widely regarded as an indispensable foundation for all ethical frameworks. It is, at the same time, an obligation of care, entailing the acknowledgment of the spectrum of behaviors in accordance with principles of justice. The second perspective is that of independence,

which acknowledges the entitlement of an individual to the autonomy of pursuing their own conception of the good [20]. In accordance with the philosophic principles espoused by Aristotle and Thomas Aquinas, Taparelli [21] posited that material interest represents the fundamental level of human comprehension and behavior. The remaining two motives of human action have their roots in the evolution that has resulted from human intellectual and social character development, as well as the initial reflective acts of practical reason. Collectively, these factors have played a significant role in the formation of secondary interests, which in turn have a considerable impact on human development [22]. Taparelli [21] asserted that social justice, as a form of virtue, is primarily defined by the intention to act in a way that is equitable to all members of society, irrespective of their individual merits. From this perspective, social justice can be defined as both an individual virtue and a situation that facilitates the formation of personal virtue. Nevertheless, as an opponent of all social contract theories, he espoused a social view of human beings, positing that he is by his social and political nature characterized by an inevitable sociality. Thus, he acknowledged that an individual who acts in accordance with social justice is, in fact, acting in alignment with the intentions of the Divine Creator, who, in the form of nature, created all humans as equals. Social justice, therefore, involves the protection of those rights that favor the intellectual, material, and moral perfection of individuals [23]. In this way, Taparelli [24] advanced a novel conceptual approach that facilitated the development of sophisticated progressive tools by Catholic scholars. These tools were employed to examine the imbalances inherent in the social order within a modern context. In doing so, they effectively addressed the limitations of legal positivism, which had relied on overly rigid and simplistic frameworks [20]. On the other hand, Hofrichter [25] posited that the concept of justice entails social transformation, aimed at enhancing the quality of life and meeting human needs (e.g., economic equality, health care, shelter, human rights, species conservation, and democracy), through the sustainable utilization of resources [26]. Subsequently, Rawls [27] broadened the conceptualization of social justice to encompass the social contract and the obligation of the nation-state to enhance the circumstances of the disadvantaged or marginalized. Contemporary explanations of social justice prioritize the concept of equality within societal structures and the pursuit of institutional reform aimed at addressing inherent imbalances and biases [26,27].

While philosophical and sociocultural inquiry offers a foundation for conceptualizing social justice, Miller [28] observed that empirical investigation into the ways in which individuals understand and operationalize this concept remains constrained. Most studies have centered on distributive and procedural justice at the individual level [29]. Furthermore, it was observed that the existing literature lacks sufficient exploration of the relationship between values, social justice attitudes, and behaviors [4]. In this context, the sociological analysis of social justice aims to transition from the micro to the macro level by examining the way individual conduct is manifested in social structures or collective phenomena [30]. Accordingly, a principal objective of social justice inquiry is the realization of a more equitable society, one that benefits all members of the population, especially those whose rights and opportunities have been constrained [9]. In the light of the assertion that the development of a scale for evaluating social justice constructs will assist in advancing research and educational initiatives aimed at fostering social justice initiatives and social activism [31], the objective of this paper is to contribute to the existing body of knowledge in the field of social justice by developing an instrument for the measurement of social justice values. In order to achieve this objective, a scientific endeavor has been undertaken with the aim of providing answers to the following questions: “Can social justice be measured from a values perspective?”; and if it can be measured, “What are the associated validated dimensions?”; “How is the constructed instrument validated for the intended population?”; and “To what extent does the scale of social justice values correlate with other validated scales in the social justice literature?”.

2. Materials and Methods

2.1. Sample

The questionnaire was distributed online among 154 students studying social science from various academic institutions in Western Romania between May and June 2024. The respondents were individuals over 18 years of age. The respondents were individuals with age over 18 years. Prior to data collection, students were informed that the scale was designed in accordance with data protection standards set forth by the European Commission [32] and that the data collected would be anonymous and processed statistically for strictly academic purposes. Ethical issues and response bias were considered when choosing how to collect the data. Student participation in the survey was voluntary and without financial or academic rewards. They were also given the opportunity to answer questions at home, in a safe environment, without being influenced by having teachers present or the academic rigor of the classroom. In designing the sample selection procedure, the researchers employed a non-probabilistic sample. The 154 respondents were predominantly female students (96.8%) under the age of 30 (87%). The high number of female respondents can be attributed to the increased proclivity of women to pursue studies in the social sciences [33,34]. By contrast, the sample size was greater than the minimal threshold of 100 cases, which is recommended by various authors in studies employing factor analysis, as an appropriate sample size for producing reliable estimates [35–37].

2.2. The Scale's Construction Process

The questionnaire was constructed using the methodologies proposed by DeVellis [38] and Boateng [39]. A review of the literature was conducted to establish the definition of the content domain as well as the dimensions for measurement. The study encompassed a rigorous examination of the conceptualization of the term “social justice”. Additionally, an investigation was conducted into the measurement models utilized to assess various attributes of social justice, aligning with the research objectives.

In the view of Perry [40], social equity constitutes a social justice value that is an essential attribute of public administrators. This entails a commitment to actions that promote the well-being of disadvantaged minorities, who often face limitations in accessing political and economic resources. Miller et al. [41] developed the Social Problems Questionnaire. This employs a career-oriented framework for understanding the social cognitive processes by which individuals are likely to engage in social justice actions. Thus, the development of interest in and commitment to social justice was examined across four key dimensions: social justice self-efficacy, social justice outcome expectations, interest in social justice, and commitment to social justice. The authors adopt a socio-cognitive perspective, as postulated by Bandura [42], to conceptualize self-efficacy as a dynamic and domain-specific set of beliefs pertaining to an individual's perceived capability to perform specific tasks, both in intra- and inter-individual contexts, in addition to community and political/institutional domains. The concept of social justice outcome expectations encompasses three distinct dimensions: social, material, and self-evaluative. These dimensions represent the perceived positive outcomes of involvement in social justice. Interest in social justice can be defined as the pattern of likes, dislikes, and indifference exhibited by an individual towards social justice-related activities. Commitment to social justice, on the other hand, represents the domain-specific activities related to social justice advocacy that an individual intends to pursue [43]. The Social Justice Scale, as proposed by Torres-Harding et al. [31], was developed with the objective of measuring favorable attitudes toward the intention to engage in social action. Janoff-Bulman and Carnes [44] approached the issue of social justice from the perspective of equality-based distributive justice. From the standpoint of the authors, social justice is oriented towards ensuring that the needs of the collective are met. This entails a sense of responsibility at the community level and the mobilization of collective efforts to promote the welfare of the group.

Subsequently, in alignment with Wilson's methodology [45], a four-dimensional operational definition of social justice from the perspective of values was formulated, drawing

upon Taparelli's theoretical framework [19]—social justice is a personal virtue that safeguards and advances the rights and obligations of others in society, upholding the principle of subsidiarity and considering the common good [22,23,46]. The initial two dimensions represent the terminal values associated with social justice. These values are pursued by members of society to achieve an optimal end result [3,47], namely, *personal values* (self-centered) and *social values* (other-centered), respectively [48]. The final two dimensions correspond to the instrumental values associated with social justice and represent a mode of behavior [3,47], namely, *moral values* (their violation engenders feelings of guilt) and *competence values* (their violation engenders feelings of shame about personal inadequacy), respectively [48].

The foundation of item generation is grounded in the tenets of content domain sampling theory [49], which posits that for each dimension on a scale of measurement, a representative sample of items must be constructed. While these items may vary in intensity or exhibit differentiation across related components within a domain, it is imperative that they exhibit a shared characteristic or attribute [50]. Accordingly, employing the deductive method [39] and utilizing existing scales from the literature as a point of reference, 18 items were constructed to represent the instrumental values associated with social justice, and 18 items were constructed to represent the terminal values associated with social justice. These items were rated on a five-point scale (1 = strongly disagree, 5 = strongly agree).

Once the items had been generated, the scale was submitted to a panel of esteemed experts in the field of sociology for a comprehensive evaluation [39]. This assessment aimed to confirm, refute, or refine the definition of the phenomenon, ascertain the relevance of each item in measuring the constructs under study, and assess the clarity and conciseness of the items [51]. After this assessment, the number of items was reduced to 30, with certain items undergoing re-wording in deference to the input received. The selected items were deemed appropriate for inclusion since they described individual aspects of attributes and behaviors related to social justice.

2.3. Data Analysis

The present study employs factor analysis with the objective of elucidating the underlying dimensions of social justice values. This will be achieved by grouping related items together in the same factor [52]. The application of this methodology will facilitate the categorization of the items into different dimensions. This process will also ensure the elimination of irrelevant items from the final questionnaire. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) represent the two principal approaches to factor analysis. The exploratory factor analysis was used at the beginning of the research to ascertain the dimensionality of the data set and to obtain insights into the interrelationships among the items [53]. Subsequently, the obtained dimensions with their corresponding items underwent a confirmatory factor analysis [54].

To assess the validity and factor structure of the scale, exploratory factor analysis was conducted using the Statistical Package for the Social Sciences (SPSS) Version 26 (SPSS Inc., Chicago, IL, USA). The Kaiser–Mayer–Olkin (KMO) coefficient and the Bartlett sphericity test were used to determine whether the data structure is appropriate for factor extraction. The Kaiser–Meyer–Olkin (KMO) index serves to ascertain the fitness of a given data matrix for factor analysis and to evaluate the suitability of the data structure for factor extraction. In the literature, an index value as close as possible to 1 is regarded as optimal, whereas values below 0.5 are deemed unacceptable. Bartlett's test of sphericity assesses the interdependence of variables within the context of partial correlations. Factor analysis is a suitable approach to be employed when the value is statistically significant ($p < 0.05$). Principal component analysis (PCA) was employed to extract the factors [55,56], with the number of factors determined through Varimax rotation with Kaiser normalization [57,58]. The principal component analysis (PCA) was deemed the most appropriate statistical tool to employ in this study, given that it allows the researcher to identify the minimum number of dimensions required to represent a set of items [54]. This method is an exploratory

investigation of the interrelationships between variables, whereby redundant items are eliminated through an iterative process [59]. Factor rotation is a statistical technique that is utilized to enhance the loadings of variables that demonstrate a robust association with a given factor, while concurrently attenuating those that exhibit a comparatively tenuous association [60]. The use of the Varimax rotation was justified by the fact that the resulting solutions are more readily interpretable and reportable. This specific type of orthogonal rotation was initially conceptualized by Kaiser [61]. Its defining feature is its capacity to maximize the discrepancies between the squared pattern structure coefficients pertaining to a given factor [54,59]. The selection criteria employed were eigenvalues exceeding 1. The optimal number of factors to be retained in the final model was determined through the implementation of parallel analysis [62,63], a Monte Carlo simulation technique employed by researchers as an alternative to scree plot to ascertain the most appropriate number of factors to be retained in the principal component and exploratory factor analysis [64]. The quality of the items was also evaluated according to the Comrey and Lee criteria [65], and only those statements with a loading value exceeding 0.50 were retained in the model. The reliability of the instrument was verified by calculating the Cronbach alpha index, both for the full set of items and for each proposed dimension, to ascertain the degree of consistency and internal consistency of the instrument. As indicated in the literature, the minimum value recommended for Cronbach's alpha is greater than 0.70. Following the procedure proposed by Hair et al. [35], the homogeneity indices of the items (Corrected Item-Total Correlation) were also analyzed, and only items with a score exceeding 0.20 were included in the scale [66].

A confirmatory factor analysis (CFA) was performed using the AMOS 21 program to corroborate the factor structure that had been derived from the exploratory analysis. The CFA method is employed to construct a hypothesis model, which is then subjected to testing in accordance with the established theoretical framework. Thereafter, the degree of correspondence between the hypothesis model and the actual measurement results is evaluated. The covariance-based SEM method, as utilized by Amos, was selected for its capacity to assess the entire structural model through fit statistics. These statistics facilitate comparison between the estimated and observed covariance matrices, thereby facilitating the assessment of the model's overall fit [67,68]. The model parameters were estimated using the Maximum Likelihood estimation method, a procedure that is considered in the literature to be the most efficient and least biased, when confirming the multivariate normality assumption, while being robust enough to be unaffected by slight fluctuations in this type of distribution [66,69]. Indices of "goodness of fit" are intended to ascertain whether the proposed model will be accepted or rejected. They serve to quantify both the degree of approximation and the discrepancy of the estimate. The extent of the discrepancy between the sample and fitted covariance matrices is evaluated using the χ^2 (chi-square), which is calculated as the product of the sample size minus one (N) and the minimum fitting function (F_{min}), with the formula [70]:

$$T = (N - 1)F_{min} \quad (1)$$

The degrees of freedom (df) associated with the χ^2 is calculated by equaling the number of known parameters minus the number of parameters that will be estimated. Therefore, it is possible to ascertain the extent to which the predicted structure aligns with the data. In practice, χ^2 is employed to express the difference between a distribution that has been empirically found to exist and the expected distribution based on a null hypothesis. In such instances, its value should be statistically non-significant to indicate a statistically significant fit [71]. Standardized Root Mean Square Residual (SRMR) is called an absolute fit index used to measure the discrepancy between model and data and is calculated by averaging the residuals of the residual correlation matrix, with the formula [71,72]:

$$SRMR = \sqrt{\frac{1}{2} \sum (S_{ij} - I_{ij})^2} \quad (2)$$

In this formula, S denotes a sample correlation matrix, whereas I represents an implied correlation matrix. Root Mean Square Error of Approximation ($RMSEA$) is another absolute fit index calculated based on χ^2 , df , and N according to the following formula [71,72]:

$$RMSEA = \sqrt{\frac{\chi^2 - df}{df(N - 1)}} \quad (3)$$

The Tucker–Lewis Index (TLI), otherwise known as the non-normed fit index, is a comparative fit index founded upon a comparison between the value of the χ^2 of the implied matrix and that of a null model. This is expressed by the following equation [71,72]:

$$TLI = \frac{\frac{\chi^2_{null}}{df_{null}} - \frac{\chi^2_{implied}}{df_{implied}}}{\left(\frac{\chi^2_{null}}{df_{null}} - 1\right)} \quad (4)$$

A similar index to TLI is the Comparative Fit Index (CFI), which is calculated as follows [71,72]:

$$CFI = 1 - \frac{(\chi^2_{implied} - df)}{\chi^2_{null} - 1} \quad (5)$$

For a good fit, Hu and Bentler [70] suggested a cutoff value of ≤ 0.08 for $SRMR$, ≤ 0.06 as a cutoff value for $RMSEA$, and ≥ 0.95 as a cutoff value for TLI and CFI [71].

Pearson correlation was used to assess construct validity by examining the relationship between the new scale and two separate constructs: *Distributive Justice* [73] and *Multidimensional Belief in a Just World* [74]. Two items associated with the principle of equality and two items associated with the principle of fairness were selected from the original scale measuring distributive justice. From the original scale measuring Belief in a Just World, six items were selected and re-encoded with a positive connotation to align with the wording of the items in the newly developed social justice scale. The two aforementioned scales have been translated into the Romanian language following the repeated forward–backward translation procedure [75,76]. It is hypothesized that all dimensions of the newly constructed scale will demonstrate a positive correlation with distributive justice and belief in a just world [77].

3. Results

3.1. Exploratory Factor Analysis

Before proceeding with the extraction of the factors, the Kaiser–Meyer–Olkin (KMO) measure of the adequacy of sampling and Bartlett’s test of sphericity (BTS) were applied to the data. A value of 0.897 was obtained for the KMO index and 2029.196 ($p < 0.001$) for the Bartlett sphericity test. This indicates that the data set meets the necessary criteria for the application of factor analysis. The preliminary principal components analysis (PCA) of the 30 proposed items was performed without rotation and with the eigenvalues set to 1, resulting in six extracted factors. By applying parallel analysis (PA), it was possible to restrict the number of factors and obtain a three-factor structure. According to the data presented in Table 1, the positive differences between the eigenvalues derived from the PCA and those derived from the PA were observed exclusively for the initial three variables. Both the means of the random eigenvalues and the eigenvalues of the 95th percentile random data were considered in the analysis, and the same number of factors were identified in each case.

Table 1. Parallel analysis for the SJV scale—first 10 values (N = 154).

Variable	PCA	PA		Differences	
		Means	95th Percentile	Means	95th Percentile
1	10.132	1.934427	2.022717	8.20	8.11
2	1.992	1.790774	1.858282	0.20	0.13
3	1.918	1.693796	1.746394	0.22	0.17
4	1.280	1.601222	1.643987	−0.32	−0.36
5	1.257	1.522366	1.566661	−0.27	−0.31
6	1.177	1.456361	1.479412	−0.28	−0.30
7	0.978	1.385232	1.419200	−0.41	−0.44
8	0.869	1.320992	1.349564	−0.45	−0.48
9	0.841	1.267073	1.295213	−0.43	−0.45
10	0.794	1.212311	1.232984	−0.42	−0.44

Following the identification of the number of factors, factor analysis was conducted once more. A Varimax rotation was employed, and the resulting model comprised three principal components. Items exhibiting loadings below the 0.5 threshold were eliminated. The results indicate that Item 29, “I am willing to challenge my superiors when I feel there are discriminatory workplace policies”, did not load on any of the three factors, while Item 08, Item 09, Item 17, Item 18, and Item 28 had loading below 0.5 [78]. The scale for measuring social justice values, derived from the exploratory factor analysis, comprises 24 items, as presented in Table 2.

Table 2. Item loadings for the three dimensions of the Social Justice Value scale.

Factor	Item	Factor Loading		
		1	2	3
D1	Item 27. I utilize social networks as a means of mobilizing other advocates for the rights of those from minority or disadvantaged communities and for the advancement of equal opportunities.	0.685		
	Item 23. I challenge individuals who engage in disparaging discourse about members of minority groups.	0.665		
	Item 21. Despite the risk of ridicule or criticism, I am committed to defending the rights of others.	0.655		
	Item 25. I view television programs that address social issues (e.g., the historical experiences of marginalized groups).	0.639		
	Item 07. It is of great importance to me to engage in discourse surrounding the ramifications of social injustices on health and well-being.	0.571		
	Item 26. I collaborate with individuals who espouse a similar viewpoint on addressing social concerns.	0.564		
	Item 19. I engage in public demonstrations when the cause in question aligns with my personal value system.	0.563		
	Item 20. I engage in activities that promote the concept of a “fairer world”.	0.557		
	Item 24. I engage in discourse with other individuals regarding the issues that pervade our society.	0.545		
	Item 06. I consider involvement in solving social problems to be an important personal value.	0.527		
	Item 10. I am certain that my worldview and prejudices can be re-examined and potentially altered as a result of witnessing or learning about an instance of social injustice.	0.512		
	Item 22. I engage in the active promotion of the rights and interests of marginalized social groups within my community.	0.502		

Table 2. Cont.

Factor	Item	Factor Loading		
		1	2	3
D2	Item 12. I engage in voluntary activities that have the potential to exert a constructive impact on my local community.		0.772	
	Item 04. It is my responsibility to remain apprised of the social events occurring within my community.		0.710	
	Item 05. It is my responsibility to be aware of the injustices occurring within my community.		0.653	
	Item 13. I engage in charitable and community service without the expectation of material gain or personal benefit.		0.631	
	Item 14. I actively encourage my friends and acquaintances to engage in voluntary work.		0.580	
	Item 11. I am confident that my participation in community activities will enable me to make a constructive contribution.		0.506	
	Item 16. I provide voluntary assistance as a tutor or mentor for young people from underprivileged backgrounds.		0.504	
D3	Item 15. I offer assistance to individuals in my immediate vicinity when they require it.			0.696
	Item 01. It is imperative that all individuals be afforded equal access to state-provided resources, including the education system, the health system, and the legal system.			0.687
	Item 03. Those in positions of authority bear a responsibility to facilitate improvements in the living conditions of disadvantaged groups.			0.684
	Item 02. It is a fundamental right of all individuals to express their opinions when decisions are being made that will have a significant impact on their lives.			0.606
	Item 30. I advocate for the principles of justice and equality for all individuals, regardless of the reception of these principles by others.			0.500

In line with the theoretical conceptualization [3], the instrumental values of social justice encompass 12 items, which are associated with an individual's subjective perception of the optimal cognitive and behavioral modes in accordance with social justice principles [79]. The terminal values of social justice consist of 12 items and have the role of directing the course of life orientations with the objective of achieving social justice [79]. The items are classified into two categories: 7 items are socially oriented, with a focus on others, and are therefore classified as social terminal values; in contrast, the other 5 items are self-oriented and, thus, fall under the category of personal values [80].

3.2. Confirmatory Factor Analysis

A confirmatory factor analysis using the maximum likelihood estimation method was conducted to ascertain the suitability of the three-dimensional conceptualization of the scale derived from the exploratory factor analysis. Given that Mardia's kurtosis coefficient was 106.180 with a critical ratio of 18.649, the data were multivariate non-normal. To ensure the generation of accurate standard errors, the CFA was therefore performed using the maximum likelihood estimation with the Bollen–Stine bootstrapping method (2000 resamples) [51,81,82]. The model incorporated all the predictors posited by the theory, comprising three latent variables, 24 observed variables (from Item 01 to Item 30, excluding Item 08, Item 09, Item 17, Item 18, Item 28, and Item 29, which were omitted following the EFA analysis), and 24 error terms (from e01 to e24). In addition, 24 factor loadings and 24 factor regressions were defined between the error terms and their associated variables. It was assumed that the main latent factors were correlated with one another, while all error terms were considered uncorrelated. The initial model fitness test results demonstrate that multiple indices fail to meet the fitting criteria cited in the relevant literature. Consequently, it was necessary to revise the initial model. A consultation of the Standardized Regression Weights table and the modification index table was conducted as a means of improving the model. As a result, several items were excluded on the grounds of their low standardized coefficients, namely, items 27, 25, 10, and 19 from dimension 1 and items 04 and 16 from

dimension 2. The sole exception was Item 22, which, despite having the same standardized regression coefficient as Item 23, displayed a lower factor loading in the exploratory factor analysis. In addition, correlations were established between the following error pairs: e_1 – e_2 , e_1 – e_7 , e_3 – e_7 , e_{10} – e_{11} , and e_{14} – e_{16} (Figure 1). Following the implementation of the specified modifications, a final recursive model comprising three dimensions, and 17 items (with corresponding error terms) were generated. As evidenced by the results of the confirmatory analysis (Table 3), the revised 17-item model demonstrated a significant improvement. The Chi-square value obtained is 120.886 with $p = 0.245$, indicating that there is no significant discrepancy between the data and the model. The values of TLI (0.986), CFI (0.989), and RMSEA (0.024) meet the requirements of Schreiber et al. [83], thus confirming the validity of the model [84]. The indices of the model fit for the original model and the revised model are presented in Table 3. The standardized regression weights between the three dimensions and the 17 items ranged from 0.600 to 0.820 and were statistically significant ($p < 0.001$). Significant positive correlations were observed between the three dimensions, with coefficients ranging from 0.520 to 0.780. As illustrated in Figure 1, the standardized regression coefficients indicate that the second-order dimensions account for a notable proportion of the observed variables' variance.

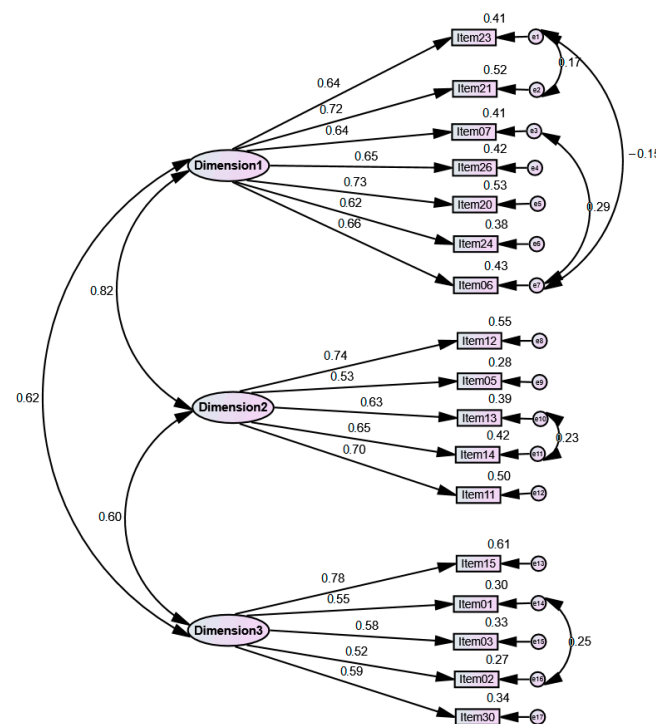


Figure 1. Confirmatory factor analysis model.

In the resulting model, Dimension 1 is associated with the instrumental values of social justice, while Dimensions 2 and 3 are both associated with the terminal values of social justice (Appendix A). Table 3 presents the data obtained from the confirmatory analysis for the initial and final three-dimensional model. Nevertheless, while the three-dimensional model may be adequate for explaining the factor structure of the observed variables, future research on this structure should be conducted to achieve better fit coefficients [85].

The reliability of the scale was assessed by analyzing the total internal consistency and that of each dimension using Cronbach's alpha. Table 4 presents the results obtained for each dimension and for the total scale. Instrumental values of social justice yielded a value of 0.851, social terminal values of social justice a value of 0.792, personal terminal values of social justice a value of 0.732, and the total scale a value of 0.893. The obtained values

were found to be moderate and exceeded the established cut-off value of 0.70 [49], thereby confirming the internal reliability of the data.

Table 3. Initial and final model fit indices.

Index	Recommended Value	Initial Model (24 Items)	Final Model (17 Items)
Chi-square (<i>p</i>)	$p > 0.05$ [71]	424.746 ($p < 0.001$)	120.886 ($p = 0.245$)
CMIN/DF	<3.0 [85]	1.706	1.089
GFI	>0.80 [86]	0.818	0.918
AGFI	>0.80 [86]	0.781	0.886
RMR	<0.10 [86]	0.097	0.060
SRMR	<0.08 good fit [70,71]	0.0750	0.0554
NFI	>0.90 [87]	0.736	0.880
IFI		0.871	0.989
TLI	≥ 0.95 [70,71]	0.854	0.986
CFI		0.868	0.989
PRATIO		0.902	0.816
PNFI	>0.70 [87]	0.665	0.718
PCFI		0.783	0.807
RMSEA	<0.06 good fit [70,71]	0.068	0.024
LO 90		0.057	0.000
HI 90	<0.08 [87]	0.079	0.049
HOELTER .05		104	173
HOELTER .01	>200 [87]	110	189

Table 4. Cronbach alpha values for the Social Justice Values scale.

Factor	Number of Items Summed	Cronbach Alpha
Instrumental values of social justice	7	0.851
Social terminal values of social justice	5	0.792
Personal terminal values of social justice	5	0.732
Total	17	0.893

A Pearson correlation analysis was employed to ascertain the convergent validity of the proposed scale (Table 5). Moderate positive correlations were identified between the instrumental values of social justice and both the terminal values of social justice ($r_{\text{social}} = 0.653, p < 0.01$; $r_{\text{personal}} = 0.499, p < 0.01$, respectively) and between the social and the personal values of social justice ($r = 0.469, p < 0.01$). The results presented in Table 5 corroborate the assumption that the three dimensions, though distinct in nature, should be regarded as forming part of the same structure.

To assess the nomological validity, the three dimensions and the total score were correlated with two other social justice components: Distributive Justice [73] and Multi-dimensional Belief in a Just World [74]. The Distributive Justice variable demonstrates a significant positive correlation with the total score ($r = 0.235, p < 0.01$), with Instrumental values of social justice ($r = 0.229, p < 0.01$), and with Personal terminal values of social justice ($r = 0.215, p < 0.01$). A statistically significant positive correlation was found between the Belief in a Just World variable and the total score ($r = 0.169, p < 0.05$), and the social terminal values of social justice ($r = 0.245, p < 0.01$). As evidenced in Table 5, the three dimensions (presented both individually and as part of a unified construct) can be regarded as constituent elements of the broader concept of social justice, along with distributive justice and the conviction in a fair and just social order.

Table 5. Bivariate relationships between the Social Justice Values, its factors, and two other scales.

Factor	Total Score	Instrumental Values of Social Justice	Social Terminal Values of Social Justice	Personal Terminal Values of Social Justice
Distributive Justice	0.235 **	0.229 **	0.153	0.215 **
Belief in a Just World	0.169 *	0.062	0.245 **	0.152
Total	1	0.910 **	0.863 **	0.701 **
Instrumental values of social justice	-	1	0.653 **	0.499 **
Social terminal values of social justice	-	-	1	0.469 **
Personal terminal values of social justice	-	-	-	1

* $p < 0.05$, ** $p < 0.01$.

4. Discussion

The objective of this study was to develop and validate a scale for measuring the values associated with social justice, employing both exploratory and confirmatory factor analysis. The results of the exploratory factor analysis indicated that no clear distinction was made between the two types of instrumental values. Conversely, in the case of terminal values, the two types of factor analysis demonstrated a distinct differentiation between personal and social values. Thus, Dimension 1 is associated with the instrumental values of social justice and includes 7 items. Dimension 2 corresponds with the social terminal values of social justice and is composed of 5 items. Dimension 3 is concerned with the personal terminal values of social justice and is comprised of 5 items. The fit indices associated with the confirmatory factor analysis motivate the choice of the three-dimensional model established by the exploratory factor analysis. The final scale, comprising 17 items, demonstrates good and sufficiently high reliability, with Cronbach alpha coefficients ranging from 0.732 to 0.893. The intercorrelations between dimensions are moderate and statistically significant, thereby indicating that the three subscales measure three related yet distinct constructs. Both the Distributive Justice scale and the Belief in a Just World scale demonstrate a positive correlation with the Social Justice Value scale, providing evidence of convergent validity. This finding also suggests that values associated with social justice may be regarded as constituent elements of the more expansive social justice construct.

A limitation of the present study is that the principle of convenient sampling was employed for data collection. Most participants were university students of similar age, with similar academic interests, and from a narrow geographic region. As a result, the findings may not be fully representative of the general population. Given the importance of human values and social justice attitudes and practices at the intrapersonal and interpersonal levels, future research should explore differences between female and male respondents, between different age groups, between different student profiles, and between different geographical regions.

5. Conclusions

The study was exploratory, attempting for the first time in the literature to examine social justice from a values perspective. In constructing the attitudinal and behavioral statements associated with the concept of social justice, Rokeach's conceptualization of instrumental and terminal values was considered. The results of this study confirm the construct validity and internal consistency of the Social Justice Value scale for evaluating the instrumental and terminal values associated with social justice. These findings address the research questions formulated at the beginning of the study. For the sample studied, exploratory and confirmatory factor analyses showed that the two types of instrumental values—moral and competence—formed a single dimension. Regarding terminal values, the two subtypes—social and personal—were clearly distinguished. Thus, the 17-item,

three-dimensional instrument has been identified as optimal for assessing social justice through values.

The developed scale can be employed as an educational instrument to ascertain the social justice profile of the individual (micro level), thereby facilitating the formulation of social policies that reinforce these attributes (macro level). Due to its value component, it is also suitable for inclusion in studies within both psychological and religious areas. The study demonstrates that the Social Justice Value scale is an effective and valuable tool for researchers to gain deeper insights into the connection between individual and societal dynamics in adopting social justice principles and values. Nevertheless, the results of the present study are not generalizable to the wider population. Therefore, further research is recommended to be conducted with a larger sample size as well as probability sampling methods.

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Appendix A

Social Justice Values Scale

On a scale from 1 to 5 (1—*strongly disagree*, 5—*strongly agree*) to what extent do you agree with the following statements:

No.	Item	Score
01.	It is imperative that all individuals be afforded equal access to state-provided resources, including the education system, the health system, and the legal system.	
02.	It is a fundamental right of all individuals to express their opinions when decisions are being made that will have a significant impact on their lives.	
03.	Those in positions of authority bear a responsibility to facilitate improvements in the living conditions of disadvantaged groups.	
04.	* It is my responsibility to remain apprised of the social events occurring within my community.	
05.	It is my responsibility to be aware of the injustices occurring within my community.	
06.	I consider involvement in solving social problems to be an important personal value.	
07.	It is of great importance to me to engage in discourse surrounding the ramifications of social injustices on health and well-being.	
08.	* In the social context in which I live, respect and appreciation for the diversity of different social groups are of significant importance to me.	
09.	* In the social context in which I live, providing social services is of significant importance to me.	
10.	* I am certain that my worldview and prejudices can be re-examined and potentially altered as a result of witnessing or learning about an instance of social injustice.	
11.	I am confident that my participation in community activities will enable me to make a constructive contribution.	

No.	Item	Score
12.	I engage in voluntary activities that have the potential to exert a constructive impact on my local community.	
13.	I engage in charitable and community service without the expectation of material gain or personal benefit.	
14.	I actively encourage my friends and acquaintances to engage in voluntary work.	
15.	I offer assistance to individuals in my immediate vicinity when they require it.	
16.	* I provide voluntary assistance as a tutor or mentor for young people from underprivileged backgrounds.	
17.	* I encourage others to engage with social issues that are pertinent to the community in which I reside.	
18.	* I provide financial support to organizations that address social issues.	
19.	* I engage in public demonstrations when the cause in question aligns with my personal value system.	
20.	I engage in activities that promote the concept of a “fairer world”.	
21.	Despite the risk of ridicule or criticism, I am committed to defending the rights of others.	
22.	* I engage in the active promotion of the rights and interests of marginalized social groups within my community.	
23.	I challenge individuals who engage in disparaging discourse about members of minority groups.	
24.	I engage in discourse with other individuals regarding the issues that pervade our society.	
25.	* I view television programs that address social issues (e.g., the historical experiences of marginalized groups).	
26.	I collaborate with individuals who espouse a similar viewpoint on addressing social concerns.	
27.	* I utilize social networks as a means of mobilizing other advocates for the rights of those from minority or disadvantaged communities and for the advancement of equal opportunities.	
28.	* I engage in discussions with friends and family members when I perceive discriminatory attitudes or opinions towards marginalized people.	
29.	* I am willing to challenge my superiors when I feel there are discriminatory workplace policies.	
30.	I advocate for the principles of justice and equality for all individuals, regardless of the reception of these principles by others.	

* Questions marked with asterisk were removed in the final version.

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