

Organizational Justice Model across Seven Countries

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*„Human nature, human culture, and the uniqueness
of each human being lead to the conclusion
that each person is in some ways like all other persons,
like some other persons, and like no other person”.*
M. Durojaiye

Abstract

In general research that has examined organizational justice (OJ) across countries has failed to prove first the measurement equivalence of their measures, thus making their results questionable. The present study focuses on the measurement equivalence of the three factor OJ model in seven countries (four languages) with the aim of seeing if the three factor model of OJ holds across these countries. The basic question that we want to answer is „Do respondents from different countries interpret the OJ measure in a conceptually similar manner?”. In subsidiary we looked at the effect of language and geographical location.

Our findings indicate that OJ is equivalent across all seven countries (configural, metric, scalar and uniqueness equivalence). Different sub-models are discussed (grouped by language and geographical location). Results indicated that *neighbor* countries that share the *same language* have a better fit of the three factors OJ model.

Key words: measurement equivalence, organizational justice, countries, CFA.

Résumé

Dans la recherche générale qui a examiné la justice organisationnelle (JO) dans différents pays n'a pas réussi à prouver d'abord la mesure de l'équivalence de leurs mesures, ce qui rend leurs résultats discutables. La présente étude se concentre sur la mesure de l'équivalence du modèle à trois facteurs JO dans sept pays (quatre langues) dans le but de voir si le modèle à trois facteurs du JO est cohérent à travers ces pays. La question fondamentale que nous voulons réponse est «Ne répondants provenant de différents pays interprètent la mesure JO d'une manière conceptuellement similaire?». En plus nous avons examiné l'effet de la langue et l'emplacement géographique.

Nos résultats indiquent que JO est équivalent dans tous les sept pays (configuration, métriques, l'échelle et l'unicité d'équivalence). Différents sous-modèles sont discutés (regroupés par langue et l'emplacement géographique). Les résultats indiquent que les pays voisins qui partagent la même langue ont un meilleur ajustement du modèle à trois facteurs JO.

Mots clés: mesure d'équivalence, la justice organisationnelle, les pays, CFA.

Rezumat

În general, cercetările care au examinat justiția organizațională (JO) în țări diferite nu au reușit să dovedească de la început echivalența măsurilor lor, făcând astfel rezultatele lor discutabile. Studiul de față se concentrează pe măsurarea echivalenței unui model cu trei factori de JO în șapte țări (patru limbi), cu scopul de a vedea dacă modelul JO cu trei factori funcționează în aceste țări. Întrebarea de bază la care vrem să răspundem este „Respondenții din mai multe țări interpretează măsura JO într-un mod conceptual similar?”. În plus am analizat efectul datorat limbii folosite și a locației geografice.

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Descoperirile noastre indică faptul ca JO este echivalentă în toate cele șapte țări (configurație, măsuri, echivalență de scară și unicitate). Diferite sub-modele sunt discutate (grupate după limbă și localizarea geografică). Rezultatele au indicat că țările vecine care împărtășesc aceeași limbă au o potrivire mai bună a celor trei factori ai modelului de JO.

Cuvinte-cheie: măsurare echivalenței, justiție organizațională, țări, CFA

Cross-cultural comparisons are interpretable only when evidence is given for the equivalence/invariance of the measures (ME/I). Without an explicit examination of equivalence, no claims can be made about cross-cultural differences and similarities. The importance of measurement equivalence should not be underestimated, because „violations of measurement equivalence assumptions are as threatening to substantive interpretations as is an inability to demonstrate reliability and validity” (Vandenberg & Lance, 2000).

An important aspect of organizational behavior that makes sense to be analyzed in cross-cultural research is organizational justice (OJ). This is because a productive relationship between the organization and its employees depends on the compensation system, rewards, etc. in all parts of the world. More than this, Cropanzano, Bowen and Gilliland (2007) argue that „justice defines the very essence of individuals’ relationship to employers” (p. 34). Along with Cropanzano et al., (2007), we agree that justice can be a core value that defines organization’s identity with its stakeholders, both internally and externally.

As we will see below, a lot of research about OJ between countries was done by directly comparing the means or testing the hypotheses or the specific models, but not much attention was given to first proving the measure invariance. However, a measure cannot identify true differences across countries without first proving that the measure is actually measuring the same thing across those countries. Because we believe that this is an important issue, the present research focuses on ME/I of OJ in seven countries* (four languages) in order to see if the three factor model of OJ holds across these countries. The basic question that we want to answer is „Do

respondents from different countries interpret the OJ measure in a conceptually similar manner?”. In subsidiary we will look at the effect of language and geographical location.

1. Literature review

1.1. Measurement equivalence / invariance (ME/I)

Equivalence is a function of characteristics of an instrument and of the cultural groups involved. Briefly, equivalence refers to the measurement level at which scores obtained in different cultural groups can be compared (Drasgow & Kanfer, 1985; Van de Vijver & Leung, 1997). Meredith (1993) defined measurement equivalence as the condition where individuals with equivalent *true scores* would have the same probability of a particular *observed score* on an associated test. Thus, demonstration of measurement equivalence is a logical prerequisite to the evaluation of substantive hypotheses regarding group differences.

Multi-group confirmatory factor analysis (MGCFA) examines the change in overall goodness-of-fit indices (GFI) when cross-group constraints are imposed on a measurement model (Cheung & Rensvold, 2002). The literature mentioned various steps in order to achieve measure equivalence (Hui & Triandis, 1985; Steenkamp & Baumgartner, 1998; Van de Vijver & Leung, 1997; Vandenberg & Lance, 2000). In order to compare countries, relying on measures with proven configural, metric, and scalar invariance is a must. In addition, uniqueness variance (residual variance) is recommended but not necessary (Cheung & Rensvold, 2002; Maitland, Dixon, Hultsch, & Hertog, 2001; Van-

* Western European countries (France and Spain), Eastern Europeans countries (Moldavia and Romania), and South American countries (Brazil, Mexico and Venezuela).

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denberg & Lance, 2000; Woehr, Sheehan, & Bennett, 2005; Woehr, Arciniega, & Lim, 2007).

Configural invariance requires that the items in the measuring instrument exhibit the same configuration of loadings in all countries (i.e., each group has the same factor pattern). As Vandenberg and Lance (2000) point out, failure to reject the null hypothesis (i.e., finding support for ME/I) has two implications. First, it means that respondent groups were employing the same conceptual frame of reference and thus ultimately might be compared with reference to measures that reflect equivalent underlying constructs. Second, it means that the further tests of additional aspects of ME/I may proceed inasmuch as they are nested within the test of configural invariance. However, if the null hypothesis is rejected, neither tests of group differences or additional ME/I tests are justified—it makes no sense to conduct tests of group differences when the constructs that are being measured differ across groups. Poor fit of this model indicates that either the factor structure does not hold across the samples or that the model is misspecified in one or more samples.

Metric invariance (or weak factorial) assesses whether the factor pattern weights (i.e., factor loadings) are equal across the groups (i.e., the strength of the relationship between specific scale items and the underlying constructs is invariant). In so doing, one determines whether item scores are scaled to the factor scores using the same unit of measurement across the groups. It is tested by restricting the factor loading of each item on its corresponding factor to be the same across groups (Vandenberg & Lance, 2000).

Scalar (or strong) invariance assesses whether the factor loadings and intercepts are equal across the groups. This indicates that individuals who have the same value on the latent variable would obtain the same value on the observed variable regardless of their group membership. When scalar invariance has been shown for a measure, the measure may be used to assess cross-group mean differences on the observed scores of the measure (Meredith, 1993; Steenkamp & Baumgartner, 1998). If scalar invariance is not supported for a measure, the measure should not be used for cross-group mean comparisons because bias exists in how

the groups respond to the indicators. Two possible causes of this bias could be group differences in (a) levels of extreme response styles, whereby one group has a greater tendency to select the extreme points on a Likert-type scale, or (b) acquiescence response styles, whereby one group has a tendency to systematically give higher or lower responses (e.g., collectivistic countries use more the higher part on a Likert-type scale; Smith & Fischer, 2008).

The last test is the unique (or strict) invariance across groups. Residual or error variance is the portion of item variance not attributable to the variance of the associated latent variable. As Cheung and Rensvold (2002) mention testing for the equality of between-group residual variance determines if the scale items measure the latent constructs with the same degree of measurement error. This test is undertaken by constraining like items' uniquenesses to be equal between groups and error-variance/uniqueness invariance implies that the item reliabilities (and therefore the scale reliabilities) are the same across groups (Beckstead, Yang, & Lengacher, C. A., 2008). Differences in vocabulary, idioms, grammar, syntax, and the common experiences of different cultures may produce residual non-invariance (Malpass, 1977). However, Byrne and Watkins (2003), Woehr et al., (2005), and Selig, Card, and Little (2008) note that the requirement that error-variances be invariant across groups is considered to be excessively stringent and of little practical value.

The test that was traditionally used to compare between models is chi-square. If the chi-square difference statistic does not reveal a significant difference between the original and the constrained-equal models, then the researcher concludes that the model has measurement invariance across groups (that is, the model applies across groups). But Cheung and Rensvold (2002) and others (Meade, Johnson, & Braddy, 2006; Meade, Johnson, & Braddy, 2008) show that chi-square is not an adequate test because of its sensitivity to the sample size and model complexity. Their analysis and choices of the indices were based on the following criteria: the indices should not be affected by model complexity or sample size and they should not be redundant. Therefore they recom-

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mended the use of RMSEA, CFI, McDonald's NCI and Gamma Hat (see more details in the analysis section).

1.2. Organizational Justice

Justice, as Cropanzano et al., (2007) argue, is a subjective and descriptive concept in that it captures what individuals believe to be right, rather than an objective reality or a prescriptive moral code. Therefore, justice is a very volatile concept that can be very detrimental in a work setting if it is not managed carefully.

Organizational justice is a term used to describe the role of fairness in the workplace (Greenberg, 1995). Although there has been an ongoing debate regarding the structure of justice, three types of justice perceptions have generally been examined. These are distributive justice (i.e., fairness about outcomes, Adams, 1965), procedural justice (i.e., fairness about the processes by which outcomes are allocated, Leventhal, 1980), and interactional justice (i.e., fairness about interpersonal treatment, Bies & Moag, 1986).

Similar to other concepts, organizational justice has been studied predominantly in North America. As Skarlicki (2001) argues, we know less about how employees from other countries make fairness judgments and react to their perceptions. And this despite the fact that cross-cultural research suggests that although concerns about justice may be universal, operationaliza-

tion of justice standards is highly particularistic (Greenberg, 2001). Greenberg (2001) argues that people may have different perceptions of fairness because they have internalized different norms and values. To the extent that different norms and values prevail in various countries, these will distinguish the culture of those countries, and in doing so, they will account for differences in perception of fairness.

Nevertheless, as we stated above, the first step in analyzing countries' differences is to be sure that the measures used are equivalent across those countries. A look at the studies that have incorporated OJ measures across countries (Table 1) shows that this necessary first step was almost always skipped, and in some cases the measures were not even translated from English to the respective languages. Therefore, their conclusions about country differences might not reflect true differences but measurement issues, and consequently they are questionable.

For example, in the special issue of *The International Journal of Conflict Management* dedicated to cross-cultural studies about organizational justice, Greenberg (2001) summarized some studies that showed non-significant differences between cultures (Rahim, Magner, Antonioni, & Rahmna., 2001; Pillai, Willims, & Tan, 2001), and others that showed significant interaction effects (Au, Hui, & Leung, 2001; Blader, Chang, & Tyler, 2001). However, if you take a

Table 1. Organizational Justice researches across countries

Authors	Countries	Translation	Translation procedure	Configural equivalence	Metric equivalence	Scalar equivalence	Uniqueness equivalence
Rahim et al. (2001)	Bangladesh	-	-	-	-	-	-
Reithel et al (2007)	Hong Kong	-	-	-	-	-	-
Rigotti et al (2007)	Germany	-	-	-	-	-	-
Blader et al (2001)	Taiwan	X	-	-	-	-	-
Leung et al (1996)	China	X	-	-	-	-	-
Chang (2002)	Korea	X	-	-	-	-	-
Au et al (2001)	China	X	x	-	-	-	-
Giacobbe-Miller (2003)	China, Russia	X	x	-	-	-	-
Tzafrir & More (2006)	Israel, Hungary	X	x	-	-	-	-
Lam et al (2001)	China	X	x	-	-	-	-
Pillai et al (2001)	Germany, India, Hong Kong	-	-	x	-	-	-
Ang et al (2003)	China	X	x	x	x	-	-
Kim & Leung (2007)	China, Japan, Korea	X	x	x	x	-	-

Note: x = presence of that step; - = absence of that step.

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closer look at these studies, you see that they suffer from some of the above-mentioned problems. Rahim et al., (2001) used the English version of the Organizational Justice Instrument for the Bangladesh sample with the pretext that „the faculty members and business managers in Bangladesh commonly understand this language” (p. 338). They proceeded forward, analyzing mean differences between US and Bangladesh samples without looking at any measurement equivalence indices.

Blader et al., (2001) used a US and a Taiwanese sample, mentioning that „each sample received a survey in their native language” (p.302) but failed to mention any details about how this translation was done. Furthermore, they did not assess the measurement invariance of their scale in any way and just proceeded to compare the means of their model between countries.

Beside the special issue of *The International Journal of Conflict Management*, we identified some other disparate studies that incorporated OJ across countries. Among them we found many questionable results mainly due to a lack of translations and/or lack of proof for measurement invariance (see Table 1).

However, none of these studies took into account the complete package that is necessary to prove before comparing means across countries: proper translation and demonstration for configural, metric, scalar (and uniqueness) invariance. The present research serves to bring a more adequate approach to OJ across countries by testing the measurement equivalence of the three factor OJ model in seven different countries (Brazil, France, Mexico, Moldavia, Romania, Spain and Venezuela). The present study will follow the procedure of translation – back translation of the English version of OJ measure in four languages (French, Portuguese, Romanian, and Spanish) and will check for configural, metric, scalar and uniqueness invariance in order to verify the measurement equivalence.

The basic question that we want to answer is „*Do respondents from different countries interpret the OJ measure in a conceptually similar manner?*”. In subsidiary we will look at the effect of language and geographical location. If the model for all seven countries taken together does not hold, we expect that the fit will be better

when grouping countries by language and/or geographical location. Moreover, previous research (Davidov, 2008; Schmidt, Muhlar, & Power, 2005) has shown through CFA’s that neighboring countries that share the same language behave similarly (e.g., better fit of the model)

RQ1: Do respondents from different countries interpret the OJ measure in a conceptually similar manner?

RQ2: Compared to the seven-country model, will the fit be better when the model includes only the countries which speak the same language?

RQ3: Compared to the seven-country model, will the fit be better when the model includes only countries located geographically in the same area?

H1: Compared to the seven-country model, the fit will be better when the model includes only countries which speak the same language and are located geographically in the same area?

2. Methods

2.1. Translation procedure

Because translation equivalence is an important issue in cross-cultural studies, there are a series of translation procedures developed. The most known is the translation – back – translation procedure (Werner & Campbell, 1970), that consists of a translation followed by an independent back translation. Similarity of the original and back-translated test is seen as evidence of appropriate translation. However, this method lost popularity because usually a verbatim translation is provided, which is not necessarily the best one. While this allows for an accurate and relatively literal translation, it does not always accommodate subtle differences in the meaning of the words (Silverthorne, 2005) and remains too close to the syntax and vocabulary of the original and therefore seems unnatural (Grisay, 2002). Van de Vijver (2000) considers that a good translation requires the combined expertise of linguistic experts who take care of the *linguistic equivalence* and psychological experts who ensure *psychological equivalence* as well as *psychometric adequacy*. Geisinger (1994) recommended the use of an

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editorial board as a more effective alternative to back translation. The *editorial board* is composed of a group that meets the same qualifications as the original translator. The board carefully reviews the translation or adaptation. This could occur in the form of a meeting or thorough individual reviews, followed by a discursive process wherein the translator and panel reconcile any differences or concerns. A similar procedure is the *committee approach* that involves a committee of bilinguals who translate and adapt an instrument (Van de Vijver & Leung, 1997).

In the present research a combination of these strategies was adopted. First, the measures were translated into the second language (Romanian, Spanish, Portuguese, and French*) by two individuals who were native in one of the four languages. Being aware that the English words „justice” and „fairness” are not easily translated into some languages (Leung, 2005), we dedicated some extra time to explain to the translators the meaning of these words.

Second, a consolidated version of these two translations was back translated in English by two other individuals, and these versions were again consolidated into one, which was compared with the original English version.

Even if in this process of translation – back translation significant discrepancies were not observed, the Romanian, Spanish, Portuguese, and French versions were also revised by some people who spoke the respective languages. They were not involved in the actual translation but only in a check of accuracy of the translation (which is an accepted procedure according to Van de Vijver & Leung, 1997). This was necessary in order to provide a more fluent version, which is not looking just for a verbatim reproduction of the English version, but also takes in consideration the natural flow of the language. The majority of the people involved in this process had a Psychology and/or Human Resources background (except for the person checking the French version) that ensured a more adequate translation.

The last step was to pre-test the measures on two people for each language, and last adjustments were made. Pre-testing the translated measure is an important step in consolidating the final version of the measure (Brislin, 1980, 1986). The aim of this step was to clear the four versions from potential language issues. Furthermore, the Spanish version was double checked for Mexico and Venezuela before the measure was applied. In addition, the Portuguese version was pre-tested in Brazil and some small differences were reconciled. The Romanian version was checked in Moldavia (where the official language is Romanian, but there are Russian influences) but no important differences were found.

2.2. Participants and Procedure

Countries are grouped according to geographic proximity and Hofstede's (1980) individualism-collectivism dimensions: more individualistic countries from Western Europe (France and Spain), followed by a group of countries somewhere in between collectivism and individualism, like Latin America's countries (Venezuela, Mexico, and Brazil), and more collectivistic countries from Eastern Europe (Romania and Moldavia**). All participants were employees.

A link with the translated versions of the measures was distributed by several contact people*** in each participating country. Each time that they sent the link with the OJ measure to their organizations and/or social network connections, we also received that email. Following this procedure allowed us to count the number of people who received the link in order to keep track of the response rate. Participation in the study was voluntary and anonymous.

In this study, 748 questionnaires were collected from seven countries. The overall response rate was 35% (Table 2). In an effort to increase the response rate, follow-up procedures were initiated after one week. However, this effort did not yield much of an increase, although the number did augment in some cases. The mean age of the respondents from all coun-

* Romanian, Spanish, Portuguese and French versions of the instrument are available from the author.

** Even if Moldova is not in Hofstede's research, because its proximity and common historical background to Romania, included language, we can assume that it is a collectivistic culture too.

*** The number of contact persons varied for each country. See below the sample description for more details.

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Table 2. Sample characteristics

Countries (n = 748)	Response rate	Gender		Age			
		Male	Female	M	SD	min	max
Brazil (n = 77)	33 %	45% (n=42)	55% (n=35)	34.77	11.26	20	73
France (n = 148)	32 %	56% (n=83)	44% (n=65)	27.33	9.4	18	57
Mexico (n = 58)	59 %	53% (n=31)	47% (n=27)	33.21	8.22	23	57
Moldavia (n = 75)	47 %	36% (n=27)	64% (n=48)	27.25	5.74	18	58
Romania (n = 160)	14 %	22% (n=35)	78% (n=125)	27.6	6.71	20	56
Spain (n = 110)	37 %	45% (n=50)	55% (n=60)	32.7	6.6	24	55
Venezuela (n = 120)	11 %	57% (n=69)	43% (n=51)	44.1	11.4	23	68

Note: n = number of subjects; M = mean; SD = standard deviation.

tries was 32.03 (min=18, max=73, SD=10.52), and 44.3% (n=331) were male.

Brazilian sample. The Brazilian sample was recruited from six different social networks from all over the country. The link with the Portuguese version of the questionnaire was sent to a total of 235 employees, and 77 usable questionnaires were received in return (33 %). The mean age of the respondents was 34.77 (min= 20, max=73, SD=11.26), and 45% (n=42) were male.

French sample. The French sample was recruited from four different sources from all over the country: (a) two sources from academic environments, (b) one from a multinational manufacturing company, and (c) one from an architecture network. The link with the French version of the questionnaire was sent to a total of 477 employees, and 148 usable questionnaires were received in return (32 %). The mean age of the respondents was 27.33 (min=18, max=57, SD=9.4), and 56% (n=83) were male.

Mexican sample. The Mexican sample was recruited from four different social networks from all over the country. The link with the Spanish version of the questionnaire was sent to a total of 98 employees, and 58 usable questionnaires were received in return (59 %). The mean age of the respondents was 33.21 (min= 23, max=57, SD=8.22), and 53% (n=31) were male.

Moldavian sample. The Moldavian sample was recruited from six different sources: (a) a network of non-profit organizations, (b) a local distribution company and (c) four different group networks. Both sources were located in the capital city, which assured a large heterogeneity of the population (the capital attracts people from all over the country). The link with

the Romanian version of the questionnaire was sent to a total of 162 employees, and 75 usable questionnaires were received in return (47 %). The mean age of the respondents was 27.25 (min=19, max=58, SD=5.74), and 36% (n=27) were male.

Romanian sample. The Romanian sample was recruited from a big multinational company located in the capital city, which assured a large heterogeneity of the population (the capital attracts people from all over the country). The link with the Romanian version of the questionnaire was sent to 1143 employees, and 160 usable questionnaires were received in return (14 %). The mean age of the respondents was 27.6 (min=20, max=56, SD=6.71), and 22% (n=35) were male.

Spanish sample. The Spanish sample was recruited from seven different social networks. All of them were working in national or multinational companies all over the country. The link with the Spanish version of the questionnaire was sent to a total of 297 employees, and 110 usable questionnaires were received in return (37 %). The mean age of the respondents was 32.7 (min=24, max=55, SD=6.6), and 45.5% (n=50) were male.

Venezuelan sample. The Venezuelan sample was recruited from three different sources: a) a big university and b) two networks. The link with the Spanish version of the questionnaire was sent to a total of 11000 employees, and 120 usable questionnaires were received in return (11 %). The mean age of the respondents was 44.1 (min=23, max=69, SD=11.4), and 57.5% (n=69) were male.

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As an observation, when the sample was collected from a couple of small-median sources, the response rate was bigger than when the sample was collected from just one major source (Romania and Venezuela).

2.3. Organizational Justice Measure

In this study, the three factor model of organizational justice (distributive, procedural, and interactional) was measured with a composite of three scales. We considered the 14 items of these scales the most adequate for a cross-cultural study for two reasons: 1) they use short, simple sentences and straightforward words (which are recommended by Brislin, 1980; van de Vijver & Leung, 1997), and 2) they capture very clearly all the facets of their respective dimensions. Although Colquitt's measure (2001) is often the OJ measure of choice, we chose not to use it for a number of reasons. First, in trying to translate the measure, we faced major discrepancies between translations for the same language and even received comments from the translators that the items could not be accurately translated. Second, even in English, if we compare the Colquitt version with other measures of OJ, we can notice that Colquitt measure has longer sentences and uses abstract or vague words which gives a translator a lot of freedom in interpreting and translating items (e.g., upheld, enact, candid, consistently, appropriate). This can result in drastically different translations across various translators and languages. On the other hand the questions form the measure we picked are easier and direct (the respondents don't have to make complicated judgments). We accept that Colquitt measure might be more suitable to be used in English speaker countries but in this case of using multiple countries and translations we decided to proceed with some OJ questions from which we could receive a more accurate translation for all four languages.

a. Distributive justice (DJ)

Price and Mueller (1986) measure distributive justice with a six-item scale. These items were measured with a five point Likert-type response scale (1 = Not fair at all, 5 = Very fair) and were related with the perceived fairness of the rewarding system. In the present study the internal consistency for this dimension by coun-

try was as following: Brazil $\alpha = .92$, France $\alpha = .85$, Mexico $\alpha = .94$, Moldova $\alpha = .90$, Romania $\alpha = .90$, Spain $\alpha = .89$, and Venezuela $\alpha = .96$.

b. Procedural Justice (PJ)

Sweeney and McFarlin (1993) constructed four items to measure procedural justice. These items asked respondents about the fairness of four general procedures: those used to communicate performance feedback, to determine pay raises, to evaluate performance and to determine promotions. For example, one question read „How fair or unfair are the procedures used to determine salary increases?” These items were measured with a five point Likert-type response scale (1 = Very unfair, 5 = Very fair). In the present study the internal consistency for this dimension by country was as following: Brazil $\alpha = .88$, France $\alpha = .86$, Mexico $\alpha = .89$, Moldova $\alpha = .87$, Romania $\alpha = .89$, Spain $\alpha = .88$, and Venezuela $\alpha = .88$.

c. Interactional justice (IJ)

Moorman (1991) developed four items to tap the fairness perceptions of the interactions that accompanied an organization's formal procedures. These items were measured with a five point Likert-type response scale (1 = Very unfair, 5 = Very fair). Items for this factor included questions that focused on the interpersonal behavior of the supervisor. For example, specific items asked whether the supervisor provided timely feedback about decisions and their implications, or whether the supervisor dealt with the employee in a truthful manner. In the present study the internal consistency for this dimension by country was as following: Brazil $\alpha = .90$, France $\alpha = .84$, Mexico $\alpha = .90$, Moldova $\alpha = .88$, Romania $\alpha = .88$, Spain $\alpha = .86$, and Venezuela $\alpha = .90$.

3. Data Analysis

The data analysis involved two steps: examining the overall fit of the three-factor model for each country (within country analysis), as well as a look at the differences between countries (across country analysis). Along with Meade et al. (2008), we believe that first doing a careful independent examination of the fit of the model in each country may be more infor-

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mative than directly examining the joint fit of the data in two or more countries concurrently.

In order to start the analysis and to identify the model, the variance of the latent constructs was fixed at one during parameter estimation, but correlations between the latent constructs were allowed. The model parameters were estimated according to the maximum likelihood (ML) criterion. The global goodness of fit (GoF) of the model was assessed via the root mean square error of approximation (RMSEA) and the comparative fit index (CFI) which are the two most frequently reported indicators in cross-cultural studies (Byrne & Watkins, 2003; Byrne, 2004; Cheung & Rensvold, 2002; Davidov, 2008; Meade et al, 2008; Raju, Laffitte, & Byrne, 2002; Schmidt et al, 2005; Schertzer, Laufer, Silvera, & McBride, 2008; Steenkamp & Baumgartner, 1998; Strizhakova, Coulter, & Price, 2008; Ullman, 2006). Also, Cheung and Rensvold (2002) and Meade et al., (2006, 2008) recommend the examination of changes in the CFI, Gamma hat, and McDonald's noncentrality index (NCI).

The RMSEA provides an absolute test of model fit that compensates for the effect of model complexity. Both the NCI and Gamma Hat represent absolute fit indices providing an indication of overall model fit, and the CFI is an incremental (comparative) measure of fit providing an indication of fit relative to a null model.

RMSEA should be used as a measure of lack of fit per degree of freedom (Browne & Cudeck, 1993; Steiger, 1990). An RMSEA value of .05 or less indicates a close fit and values up to .08 represent reasonable errors of approximation in a population (Browne & Cudeck, 1993, Vandenberg & Lance, 2000; Ullman, 2006).

CFI (Bentler, 1990) provides an indication of fit relative to a null model and ranges from 0 to 1, with higher values indicating better fit and values of .95 or greater (95% of the covariation in the data can be reproduced by the given model) typically interpreted as indicating acceptable levels of fit (Vandenberg & Lance, 2000; Ullman, 2006). In a large-scale simulation, Cheung and Rensvold (2002) suggest that even a CFI = .90 can be acceptable, and „if a test of overall fit produces a value of CFI less than .90, it is unlikely that the model would receive

future consideration” (p.241). On the same line is Woehr et al., (2007) who state that „values of .90 or greater are typically interpreted as indicating acceptable levels of fit” (p.160).

The accepted values for Gamma hat and McDonald's noncentrality index (NCI) are .95 and respectively .90 (Hu and Bentler, 1990).

When conducting multi-group CFA measurement invariance tests, a series of nested multigroup models is examined for lack of invariance across samples: configural invariance (Model 1), metric invariance (Model 2), scalar invariance (Model) and uniqueness invariance (Model 4) (Cheung & Rensvold, 2002; Maitland et al, 2001; Vandenberg & Lance, 2000). If a statistically significant decrement in model fit is found, a lack of invariance is indicated in those parameters most recently constrained (Vandenberg & Lance, 2000). Consequently, in the current study, to test the measurement equivalence of the OJ measure across the seven countries, we used a multi-group CFA application in AMOS to test these four models.

Configural invariance (Model 1) posited an equivalent factor structure (i.e., items related to the same factors) across groups and thus represented a test of configural invariance. Specifically, we constrained one regression weight per dimension across all countries to one, and all other parameters were freely estimated. If Model 1 was not supported, the interpretation would be that the groups differed in terms of the number or composition of factors represented in the measurement instrument, and thus no further tests would be warranted (i.e., the measure was not equivalent across groups). Furthermore, the configural invariance model serves as a baseline of model fit for comparison with other, more restrictive models.

Metric invariance (Model 2) was based on the same measurement model as Model 1 but with more constraints placed on the model parameters. That is, factor pattern coefficients for like items were constrained to be equal across groups. Here, the question was whether the relations between specific items and the underlying constructs or factors tapped by the items were the same across groups. If Model 2 was not supported, the interpretation would be that the groups differed in terms of the extent to

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which items were viewed as indicative of the various dimensions, and thus no further tests would be warranted (i.e., the measure was not equivalent across groups).

Scalar invariance (Model 3), or a test of the null hypothesis in which intercepts of like items regressions on the latent variable are invariant across groups, implying that cross-country differences in the means of the observed items are a result of differences in the means of their corresponding factors. To assess scalar invariance, one constrains the intercepts of the underlying items to be equal across countries, and tests the fit of the model to the data. Additionally, one of the groups factors means should be set to 0.

Uniqueness invariance (Model 4) states that the uniqueness variance for the manifest variables is equivalent across groups. Thus the error variance was set to be equal across countries. As Byrne and Watkins (2003), Woehr et al. (2005), and Selig et al. (2008) argue, unlike configural, scalar and metric invariance, error variance equivalence is not a necessary condition for meaningful cross-source comparisons and is considered to be excessively stringent and of little practical value.

Furthermore, comparisons of nested models, essential to tests of measurement invariance, were conducted using the differences between models (Joreskog & Sorbom, 1979; Vandenberg & Lance, 2000). In doing so, we can determine if the more constrained model fits the data less well than the less constrained model and if so, we can reject the null hypothesis that the hypothesized covariance matrix is identical to the observed covariance matrix, which is usually

accepted as evidence of adequate fit (Vandenberg & Lance, 2000). According to Cheung and Rensvold (2002) a value of CFI difference smaller than or equal to -0.01 indicates that the null hypothesis of invariance should not be rejected. For Gamma hat and McDonald's NCI, the critical values are $-.001$ and $-.02$, respectively.

Nevertheless, one distinction should be made. The Cheung and Rensvold (2002) recommendations are limited to measurement models with two groups and „the recommendations for GFIs for testing across three or more groups is an interesting topic for future study” (Cheung & Rensvold, 2002, p. 251). Consequently in the light of this information, in our case of a test between seven countries, we can assume that bigger differences than those mentioned by Cheung & Rensvold (2002) can still be accepted.

4. Results

4.1. Within country analysis

As can be seen in Table 3 and 4 in general the measure proved good internal consistency (the only exception was the French sample). Moreover correlations between the three latent constructs exhibit discriminant validity, and all item loadings were significant proving convergent validity. Factor score weights indicated that in all cases the items loaded in accordance with their corresponding dimensions.

Although some of the indices proved good fit of the data, others did not. Unfortunately, conflicting evidence of good fit (some indices indicate good fit and others do not) is not uncommon.

Table 3. Summary statistics for the 3 factors OJ model per country

Countries (n = 748)	Organizational Justice			Distributive Justice				Procedural Justice				Interactional Justice			
	No. of items	M	SD	No. of items	M	SD	α^*	No. of items	M	SD	α^*	No. of items	M	SD	α^*
Brazil (n = 77)	14	2.94	.75	6	2.95	1.02	.921	4	2.66	1.02	.884	4	3.30	1.02	.906
France (n = 148)	14	3.09	.68	6	3.38	.89	.846	4	2.78	.79	.864	4	3.10	.96	.843
Mexico (n = 58)	14	3.11	.81	6	3.03	1.13	.943	4	2.61	1.06	.891	4	3.66	1.07	.907
Moldavia (n = 75)	14	3.20	.79	6	3.10	.86	.895	4	2.98	.99	.871	4	3.50	.94	.877
Romania (n = 160)	14	2.96	.77	6	2.82	.90	.890	4	2.81	.94	.886	4	3.25	1.06	.878
Spain (n = 110)	14	2.86	.80	6	2.74	.87	.891	4	2.56	.95	.882	4	3.27	1.03	.861
Venezuela (n = 120)	14	2.84	.85	6	2.78	1.21	.961	4	2.41	.94	.880	4	3.31	1.12	.904

Note: n = number of subjects; M = mean; SD = standard deviation; α = internal consistency reliability estimates

* p = .000

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Table 4. Results of the CFA for the 3 factors OJ model per country

Countries (n = 748)	df	χ^2 *	df/ χ^2	RMSEA	CFI	NCI	Gamma Hat
Brazil (n = 77)	74	128.42	1.73	.098	.93	.70	.995
France (n = 148)	74	151.95	2.05	.085	.92	.77	.967
Mexico (n = 58)	74	110.88	1.50	.094	.94	.72	.960
Moldavia (n = 75)	74	178.72	2.42	.138	.85	.49	.916
Romania (n = 160)	74	118.45	1.60	.061	.97	.87	.982
Spain (n = 110)	74	116.83	1.58	.073	.96	.82	.975
Venezuela (n = 120)	74	137.79	1.85	.085	.96	.76	.967

Note: OJ = organizational justice; CFA = confirmatory factor analysis; n = number of subjects;
RMSEA = root mean square error of approximation; CFI = comparative fit index; NCI = noncentrality index.
* p = .005

Even so, Moldavian sample has systematically bad indices. A possible explanation of these bad fit indices can be that in Moldavia, besides Romanian, Russian language is also massively used. Thus the Romanian version of the OJ measure could have been influenced by this competing language, even if in the translation phase the Romanian version of the measure was pre-tested in Moldavia. Furthermore, we have to take in account the small sample size (n = 75).

Thus, we concluded that the three-factor model demonstrated marginally acceptable model fit for the analyzed countries.

4.2. Across countries analysis (RQ1)

We used AMOS 16.0 to conduct multi-group CFA in order to assess cross-cultural configural, metric, scalar and uniqueness invariance of the three-factor OJ measure, i.e., distributive justice, procedural justice, interactional justice (Table 5).

Configural invariance implies that items in the measurement scales exhibit the same pattern

of factor loadings across the seven country samples. According to the indices (χ^2 /df ratio= 1.822, CFI= .93, RMSEA = .033, Gamma Hat=.994, at p=.005) all loadings of the latent variables were statistically significant across the seven countries and exhibited a similar pattern of loadings. This allowed us to check the next levels of equivalence.

The indices of metric invariance (i.e., equivalence of subject scores) indicated good fit (χ^2 /df ratio= 1.80, CFI= .93, RMSEA = .033, Gamma Hat=.991, at p=.005). Furthermore, comparison of nested models, Model 1 and Model 2 (metric invariance) was conducted using the differences between models (Cheung & Rensvold, 2002; Joreskog & Sorbom, 1979; Vandenberg & Lance, 2000). The CFI difference between models of -.00, NCI difference of -.02, and Gamma Hat difference of -.003 indicates a good fit of the data although it might seem that the Gamma Hat difference is not in accordance with the standards highlighted by Cheung and Rensvold (2002).

Table 5. Results for the Measurement Invariance tests for the OJ Measure

Model	df	χ^2 *	χ^2 difference ^a	RMSEA	CFI	CFI difference ^a	NCI	NCI difference ^a	Gamma Hat	Gamma Hat Difference ^a
1. Model 1: Configural invariance	518	943.60	—	.033	.93	—	.75	—	.995	—
2. Model 2: Metric invariance	584	1053.29	109.69	.033	.93	.00	.73	.02	.992	.003
3. Model 3: Scalar invariance	650	1235.95	182.66	.035	.92	.01	.68	.05	.982	.010
4. Model 4: Uniqueness invariance	668	1309.92	256.63	.036	.91	.02	.65	.08	.975	.017

Note: OJ = Organizational Justice; RMSEA = root mean square error of approximation; CFI = comparative fit index;
NCI = noncentrality index; a = Difference between models: Model 2 vs. Model 1; Model 3 vs. Model 2; Model 4 vs. Model 2.
* p = .005

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However, as they mentioned, their recommendations are limited to measurement models with two groups and „the recommendations for GFIs for testing across three or more groups is an interesting topic for future study” (Cheung & Rensvold, 2002, p. 251). Consequently in light of this information, in our case of a test between seven countries we can assume that a Gamma hat difference of -.003 is acceptable.

Also, the data indicates proof for scalar invariance (χ^2/df ratio= 1.90, CFI= .92, RMSEA = .035, Gamma Hat=.982, at $p=.005$). The CFI difference between Model 2 and Model 3 of -.01, NCI difference of -.05, and Gamma Hat difference of -.01 indicates a moderate fit of the data. Proof of configural, scalar and metric invariance allows us to say that the baseline for comparison was established.

Even if uniqueness invariance is not a mandatory test in order to prove invariance (Byrne & Watkins, 2003; Woehr et al., 2005; Selig et al., 2008), we did find a relatively good fit for this level of analysis (χ^2/df ratio= 1.96, CFI= .91, RMSEA = .036, Gamma Hat=.975, at $p=.005$). However, comparison of nested models (Model 2 and Model 4) indicates a CFI difference of -.02, NCI difference of -.08, and Gamma Hat=-.017. These differences are beyond the standards recommended by Cheung and Rensvold (2002). Future research is necessary in order to judge how these differences should be interpreted in the case of a seven-sample comparison.

Consequently, we can conclude that the new OJ measures (French, Portuguese, Romanian

and Spanish versions) are invariant and can be safely used to examine the cross-national similarities and differences among these 7 countries.

In general, the mean differences was significant for countries that are not located in the same geographical region or/and that are not speaking the same language. Further studies are needed in order to see if these mean differences are consistent across samples.

Post hoc analysis

During our analysis, we noticed that Moldavia indices are consistently lower than the other countries. Also, we noticed that France generally had lower internal consistency indices. Therefore we conducted an analysis without the Moldavian and France samples to see if the fit indices would get better. However, the results did not indicate any improvement compared to the seven-country model.

4.3. Countries grouped by language and geographical regions (RQ2 & RQ3)

We performed a separate analysis in which we grouped the countries by language: Spanish-speaking countries (Spain, Mexico, and Venezuela) and Romanian-speaking countries (Romania and Moldavia).

For Spanish-speaking countries, the model proved good fit of the data for configural, scalar, and metric invariance, but not very good for uniqueness invariance (Table 6). These indices are similar but slightly better than the indices for the overall model.

For Romanian-speaking countries, all three models proved a good fit of data. In fact, if we

Table 6. Results for the Measurement Invariance tests for the OJ Measure for the Spanish speaker countries

Model	df	χ^2 *	χ^2 difference ^a	RMSEA	CFI	CFI difference ^a	NCI	NCI difference ^a	Gamma Hat	Gamma Hat Difference ^a
Model 1: Configural invariance	148	297.78	—	.066	.93	—	.77	—	.984	—
Model 2: Metric invariance	159	304.64	6.86	.063	.93	.00	.78	.01	.980	.004
Model 3: Scalar invariance	173	327.91	23.27	.063	.92	.01	.76	.02	.974	.010
Model 4: Uniqueness invariance	173	320.83	16.19	.061	.93	.00	.78	.00	.973	.011

Note: OJ = Organizational Justice; RMSEA = root mean square error of approximation; CFI = comparative fit index; NCI = noncentrality index; ^a = Difference between models: Model 2 vs. Model 1; Model 3 vs. Model 2; Model 4 vs. Model 2.
* $p = .005$

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compare the indices differences for this subset of countries with the general seven-country model (or any other subset of countries), the Romanian-speaking countries had the lowest CFI, NCI and Gamma Hat differences indicating the best fit of the data (Table 7). A possible explanation for these findings is that the Romanian-speaking countries are also close in geographical location, which offers further rationale for why there should be similarities, and thus, greater fit (H1).

We performed a separated analysis with countries grouped by geographical location: Western Europe countries (France and Spain), Eastern Europe countries (Romania and Moldavia), and South American countries (Brazil, Mexico and Venezuela). For Western Europe and South American countries the result indicated a good fit of the (Table 8 and 9). The results for Eastern European countries are the same as the results for Romanian speaking countries (Table 7).

5. Discussions

5.1. General discussion

Evidence of measurement equivalence is important in order to assure scientific conclusions. Factor structure invariance indicates that in all seven countries, OJ is perceived as a three-factor model consisting of distributive justice, procedural justice, and interactional justice. Also, equivalence in factor loadings indicates that all countries respond to the OJ measure in the same manner, such that the strength of the

relationship between each item and the underlying construct and the baseline level of OJ are the same across countries. Furthermore, intercepts of similar items regressions on the latent variable are invariant across groups, implying that cross-country differences in the means of the observed items are a result of differences in the means of their corresponding factors. Even for error variance the indices were according to the standards (RQ1). Hence, future studies that will use this OJ measure and find differences between countries can assume that these differences are not the result of lack of ME/I across countries, but a real difference. Also all the sub-models (grouped by language and by geographical location) proved slightly better indices and low nested model differences for configural, scalar, metric and uniqueness invariance (except Western European and Spanish-speaking countries) the overall seven-country model (RQ2 & RQ3). This shows that indeed the three-factor model of OJ holds across countries regardless of language or geographical location.

An interesting observation was that although indices for Moldova were consistently worse than the other countries, pulling the Moldova sample out of the seven-country analysis did not improve the fit indices. A possible explanation for the poor fit indices in the case of Moldova include the fact that in addition to Romanian, Russian language is also extensively used, thus future studies should address this issue by having a Russian version of the measure in order for the respondents to use the version that are more comfortable with.

Table 7. Results for the Measurement Invariance tests for the OJ Measure for the Romanian speaker countries / Eastern European countries

Model	df	χ^2 *	χ^2 difference ^a	RMSEA	CFI	CFI difference ^a	NCI	NCI difference ^a	Gamma Hat	Gamma Hat Difference ^a
Model 1: Configural invariance	222	365.23	—	.048	.95	—	.78	—	.989	—
Model 2: Metric invariance	244	406.38	41.15	.048	.95	.00	.75	.03	.984	.005
Model 3: Scalar invariance	266	425.33	18.95	.046	.95	.00	.76	.01	.978	.006
Model 4: Uniqueness invariance	272	533.92	127.54	.058	.92	.03	.63	.12	.959	.025

Note: OJ = Organizational Justice; RMSEA = root mean square error of approximation; CFI = comparative fit index; NCI = noncentrality index; ^a = Difference between models: Model 2 vs. Model 1; Model 3 vs. Model 2; Model 4 vs. Model 2.
* p = .005

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Table 8. Results for the Measurement Invariance tests for the OJ Measure for the Western European countries

Model	df	χ^2 *	χ^2 difference ^a	RMSEA	CFI	CFI difference ^a	NCI	NCI difference ^a	Gamma Hat	Gamma Hat Difference ^a
Model 1: Configural invariance	222	376.80	—	.053	.95	—	.74	—	.987	—
Model 2: Metric invariance	244	418.57	41.77	.053	.94	.01	.71	.03	.981	.006
Model 3: Scalar invariance	266	446.13	27.56	.052	.94	.00	.70	.01	.972	.009
Model 4: Uniqueness invariance	272	486.33	67.76	.056	.93	.01	.66	.05	.962	.019

Note: OJ = Organizational Justice; RMSEA = root mean square error of approximation; CFI = comparative fit index; NCI = noncentrality index; a = Difference between models: Model 2 vs. Model 1; Model 3 vs. Model 2; Model 4 vs. Model 2.
* p = .005

Additionally, taking out the France sample, which had the lowest internal consistency reliability estimates, did not improve the overall indices for the six countries left. A more detailed analysis and probably a replication of this measure in a French sample are necessary in order to understand why the France sample registered lower Coefficient Alpha.

The same language and same geographical region effect (H1) played a role in improving the fit indices when they were taken together, as in the case of Romania and Moldavia (the same language, Romanian, and similar geographical location being neighbor countries). Previous research (Davidov, 2008; Schmidt et al., 2005) also proved that neighboring countries that share the same language behave similarly from the CFA point of view (e.g., better fit of the model between them). On the other hand, when consid-

ered separately (only language as in Spanish speakers or only the same geographical location as in case of Western Europe or South America) the language or geographical location influence was not detected (RQ 2 & RQ3). These results indicate that although the OJ measure proved measurement equivalence across countries and all this countries can be compared, the data will be more valid when this comparison is made between countries that are neighbors and speak the same language. On the other hand, future studies should give a second look at the measure translation and see if this neighbor-language effect is due to the translation quality of the four versions of the OJ measure, or if it is a true effect. For example, it's possible that the Romanian version of the OJ measure (for which this effect was noticed) was „better” translated and thus better fit was found for the Romanian speaking countries.

Table 9. Results for the Measurement Invariance tests for the OJ Measure for the South American countries

Model	df	χ^2 *	χ^2 difference ^a	RMSEA	CFI	CFI difference ^a	NCI	NCI difference ^a	Gamma Hat	Gamma Hat Difference ^a
Model 1: Configural invariance	148	268.79	—	.056	.94	—	.79	—	.985	—
Model 2: Metric invariance	159	284.52	15.73	.056	.94	.00	.78	.01	.981	.004
Model 3: Scalar invariance	170	309.46	24.94	.057	.93	.01	.76	.02	.974	.007
Model 4: Uniqueness invariance	173	346.72	62.20	.063	.91	.03	.71	.07	.965	.016

Note: OJ = Organizational Justice; RMSEA = root mean square error of approximation; CFI = comparative fit index; NCI = noncentrality index; a = Difference between models: Model 2 vs. Model 1; Model 3 vs. Model 2; Model 4 vs. Model 2.
* p = .005

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Additionally, other factors, such as common history, can moderate the relationship.

5.2. Strengths and limitations

Frequently, studies are limited to experimental laboratory situations, and in most cases, use college students. This is not the case in this research study, which used employees who were in a real work environment. Furthermore, the opportunity to collect data from seven countries spread across so many areas of the globe is one of the strongest points of this research. However, we missed in this research not having an American sample (the sample where the instrument was originally validated), which would have allowed for more in-depth analyses.

Our somehow modest response rate (35% overall, with variation between 11% to 59%) is not different than other studies done in multiple countries. Response rates are general problems in any study, and tend to be more so in cross-cultural studies. According to the literature, the willingness to respond varies across cultures, and in the U.S., return rates are often as low as 3%, and in Taiwan they are likely to be around 30% (Silverthorne, 2005). Other studies (about organizational justice and not other areas) done with employees also reported a relatively low response rate: 21% and 35% for U.S. sample, and 62% and 53% for Bangladesh sample (Rahim et al., 2001), 58% for Brazilian sample and 45% for New Zealand sample (Fischer et al., 2007), 34% for Korean sample (Dubinsky et al., 1992), 36% for the American sample, 27% for Japanese sample, and 37% for both Chinese and Korean sample (Kim & Leung, 2007). Additionally, other studies did not even report the response rate (Coatsworth et al., 2005; Davidov, 2008; Schertzer et al., 2008; Schmidt et al., 2005; Steenkamp & Baumgartner, 1998; Strizhakova et al., 2008).

A possible bias is introduced by the characteristics of the samples used for this research. For the majority of the countries, the sample was fairly diverse, being collected from multiple sources. However, for Romania and Venezuela, the sample was extracted from one organization in each country. This fact can introduce a local organizational effect along with the country effect. Also, collecting responses from the same

source proved to be detrimental to the response rate (Romania and Venezuela having the lowest response rates). In the light of these findings, we recommend using multiple sources for collecting the samples in cross cultural studies.

A statistical limitation is that the acceptance level of the indices difference provided by Cheung and Rensvold (2002) were calculated with two samples and at this point there is no guidance regarding the interpretation of CFI, NCI or Gamma Hat indices when three or more samples are compared.

5.3. Future studies

The purpose of this study was to measure the equivalence of this OJ measure in order to see if it is appropriate to start comparing countries using this measure. The next step is to actually explore potential substantive differences with respect to OJ as measured with this instrument between these seven countries. More detailed analysis will be possible and potential hypotheses can be tested, if a bigger and more demographically diverse sample is available (e.g., age, gender, education, job industry, work experience, etc.).

All four different languages used in this research (French, Romanian, Spanish, and Portuguese) have roots in Latin. It would be interesting to see how this three-factor OJ model works in a different language setting as well, such as Slav languages, African languages, Arabic, Persian, Chinese, etc. In this way, it may be possible to show that the three-factor model of OJ is a universal construct.

The forth version of this OJ measure was translated according to the translation procedure required in cross-cultural translation, but any revision of this version is welcomed. Also, for Moldavia, a Russian version should be developed, since both Romanian and Russian languages are largely used in this country.

More attention should be given to different subcultures within a primary culture that most likely will have different values from one another. As Hofstede, G. and Hofstede, G. J. (2005) argue, there are layers of culture within the national culture. Also collecting the samples from multiple sources can be beneficial for the response rate and also offers a more diverse

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sample that allows better estimations (cancel the effect of organizational or regional influence).

Due to modest sample size specific findings obtained here should be interpreted cautiously, pending future replications. In addition, future research should look at a more diverse countries' sample and include some African and Asian countries as well. Additional data from countries on these continents would be necessary to more confidently argue for a universally shared meaning of the organizational justice construct.

6. Conclusions

In summary, our results suggest that the newly developed France, Romanian, Portuguese and Spanish versions of the Organizational Justice measure demonstrate a high degree of measurement equivalence (configural, metric, scalar and uniqueness equivalence). Further studies with a bigger and more diverse sample are necessary in order to assess the mean differences between these countries.

Cross-cultural studies help us to interpret and understand justice principles beyond North America. Moreover, cross-cultural research can assist managers of multinational organizations, as well as managers of a culturally diverse workforce within one country, to understand how organizational policies and their implementations impact employees' perception of fairness, and how to increase the perceived fairness of HR practices. As this research shows, employees in different locations perceive this OJ measure in a similar way. Therefore, when located in any of these countries, companies should treat people accordingly, keeping in mind that all of the employees pay attention to the way rewards are distributed inside of the company, what procedures are used in order to spread the rewards, and have the need to be treated fairly when they are interacting with their supervisors and other colleagues.

Due to the rapid changes that occur in organizations today, results reported by researchers a couple of years ago may lose their validity as time goes on. This means that in order to have an accurate image about how a particular country acts, cross-cultural studies should be updated

periodically. In conclusion, we strongly encourage that future research in the area of OJ tests for measurement equivalence first, before proceeding to compare between countries. Any analysis that skips this important step will weaken the entire results.

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