

RANKINGS OF TOLERANCE IN MORALLY DEBATABLE QUESTIONABLE BEHAVIORS: A NONPARAMETRIC ANALYSIS

ANÁLISIS NO PARAMÉTRICO DE RANKINGS DE TOLERANCIA EN COMPORTAMIENTOS MORALMENTE CUESTIONABLES

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Received: 16/08/15

Accepted: 08/10/15

ABSTRACT

The aim of this study is to explore, through rankings, tolerance towards morally debatable situations. The sample comprised 254 psychology college students (male and female) in Lima, 21-year old on average. The instrument used was the Morally Debatable Behaviors Scale. It is concluded that there is a similarity in the rankings by gender and age. In terms of religion, there are differences with the group of Evangelists, who are less tolerant than Catholics regarding pre-marital sexual relations. The impact of these results in understanding the tendency to action in terms of morality is discussed.

Keywords: moral tolerance, college students, nonparametric, morality.

RESUMEN

El objetivo del presente estudio es explorar la tolerancia ante situaciones moralmente controversiales mediante rankings. La muestra estuvo conformada por 254 estudiantes universitarios de la carrera de psicología, entre varones y mujeres, con una edad promedio de 21 años, de la ciudad de Lima. El instrumento utilizado fue la Escala de Comportamientos Morales Controvertidos. Se concluye que existe similitud, según género y edad, en relación a los rankings de los comportamientos morales controvertidos. En cuanto a la religión, se encontraron diferencias con el grupo evangélico, quienes resultan ser menos tolerantes en cuanto a las relaciones prematrimoniales; en comparación a los católicos. Discutimos el impacto de estos resultados en la comprensión de la tendencia a la acción en el plano de la moralidad.

Palabras clave: tolerancia moral, estudiantes universitarios, no paramétrico, moralidad.

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[RIDU]: Revista Digital de Investigación en Docencia Universitaria
December 2015 - Volume 9 - Issue 2 | LIMA (PERÚ)

INTRODUCTION

In a time of shifts in social and technological tendencies, when the idea of good and evil seems to be in constant change, it's possible that said opinions could affect the hierarchy of people's beliefs, values and attitudes, and the impact they have on their tolerance towards socially questionable types of behavior. One of the cultural phenomenon that has come along with these changes, is the role and influence religion has in building and transforming moral standards and personal values (Bégué, 2001a; Bégué, 2001b; Emergen, 1996; Jensen, 1997; Rocas and Schwartz, 1997; Schwartz and Huisman, 1995) that make up part of a person's identity in society.

Morality has been studied with different branches of science and psychology; therefore there are many authors with a different perspective on the subject. There are studies about the development of morality, done by Kohlberg (1976, 1984); Gibbs' studies (1992, 2003), which raise a theory about social-moral reflection; Lind's (2007, 2009), which talks about moral competence, Gilligan's (1985) theory about the ethics of care, among other studies done by other authors. The current paper will address morality, from tolerance to certain behaviors that may be considered as unacceptable but justified by certain people. These forms of conduct are characterized by being controversial, unacceptable or intolerable by members of a community, and refer to what concerns three different contexts: sexual domain, a person's honorability and legal happenings (Mathiesen, Mora, Chamblás and Navarro, 2004; Mathiesen, Mora, Chamblás, Navarro and Castro, 2002; Robinson, Shaver and Wrightsman, 1991). These empirically found dimensions specifically refer to the following: in the sexual dimension are those topics referred to controversial moral behavior in relation to

life, death and sexuality itself. The dimension of personal morality or honorability refers to the tolerance of controversial moral behavior that is related to the integrity a person has when facing issues related to honorability. Finally, the dimension of legal morality is related to a series of behavior banned by the law, therefore, also by society.

When understanding moral tolerance, one's interest should be directed towards its key aspects and its role regarding personal experiences facing moral situations. For example, the linear relationships between academic honesty and moral tolerance has recently been documented (Wowra, 2007), and it points out that the tendency to act and identify with certain values and moral permissiveness explains the tendency to perpetrate questionable behavior. In what concerns tolerance's key determining factors, these aren't influenced exclusively by knowledge about medical advances. For example, contraception and the prevention of STD's are influenced by individual values related to sexual morality (Mathiessen, Mora and Castro, 1998), and how close one is to religious or authoritarian beliefs (Katz, Santman and Poner, 1994). Aspects of family life, such as one's upbringing and other factors that make up one's psychological configuration, are also associated to tolerance, at least in Latin America (Chamblás, Mathiessen, Mora, Navarro and Castro, 2000; Mathiessen et al., 2002).

Regarding the relationship between religion and moral tolerance, using the revised Scale of Controversial Moral Behavior (Katz et al., 1994) revealed that there's a moderate relationship between religious and authoritarian values in accordance to the level of dogmatism there is in permissive attitudes. Some discoveries revealed that the religious

affiliation between Catholics predicts the degree of commitment in social participation (Bègue, 2001a), and that their differences are also part of their hierarchy of values in comparison to those who don't manifest an explicit religious affiliation (Bègue, 2001b). In general, it's also noted that there's a positive relationship between honesty and religiosity (Katz et al., 1994). Specifically, it has also been found that students who don't claim to have a religious affiliation are more permissive than evangelicals and those who belong to other religions; while Catholics, are positioned at an intermediate level of tolerance (Mathiesen et al., 1998; Mathiesen et al., 2002; Mathiesen et al., 2004). Therefore, it seems that the level of affiliation can explain how much substantial variance there is between the different groups. Even though the effects of religion on beliefs and moral actions (Bloom, 2012) or moral competence (Duriez and Soenens, 2006) over the perception of morally questionable behavior, are subjects still being debated, more hasn't been investigated since research done years ago in the studies done by Katz et al. (1994) and Mathiesen in Chile (Mathiesen et al., 1998; Mathiesen et al., 2002; Mathiesen et al., 2004).

Regarding sex, different studies suggest that men are more permissive than women (Sanchez, 2012), especially in what concerns personal and legal permissiveness, even though their differences disappear on the subscale of sexual morality. (Mathiesen et al., 1998; Mathiesen et al., 2002; Mathiesen et al., 2004). In what concerns age, it was found that the older the person the lower the permissiveness, although it was found with no significant statistic; the only thing observed was a slight tendency in the inverse correlation and it probably was due to the low range of variability (Mathiesen et al., 2002; Mathiesen et al., 2004).

The current paper explores tolerance in morally controversial situations through rankings gotten from applying the Scale of Controversial Moral Behavior (Harding and Philips, 1986) revised by Katz et al. (1994). These rankings stray from each item's information, due to the fact that the responder morally evaluates each situation, in accordance to the amount of tolerance towards a specific situation. An analysis of items through rankings will allow us to evaluate if the perceived tolerance is continuous within the different groups of people (for example, between men and women), and if the case is so then a consensus can be assumed between groups in regard of an evaluated controversial situation. Quantitatively, this would be shown by high coefficients of concordance. If people within a group value differently the moral situations also presented to other groups, then it would be shown in a more or less permissive perspective, which would be probably explained by the group's affiliation. Consequently, when applying concordance coefficients, they'll result in low coefficients.

Our research is different from others with the same instrument, mainly because it evaluates all the possible differences starting from the analysis of the items, shown through tolerance rankings, while previous studies have used overall scores (Bègue, 2001a; Mathiessen et al., 1998; Mathiessen et al., 2002; Mathiessen et al., 2004; Wirtz and Kum, 2004). Although this is standard in psychological investigations, the item's analysis provides more specific information about the differences in scores. Therefore, an examination of the possible effects of gender, religious affiliation and study cycle in university students, with this amount of information, can reveal patterns of influence that will expand knowledge on moral behavior.

METHOD

Participants

The sample was made up of 254 psychology students from a private university located in the province of Lima, and it was obtained through an intentional non-probabilistic sample. On table 1, the female gender has a higher rate, which reflects a general tendency in psychology in Peru's universities. The average age was 21 (SD = 3.7; min. = 16 and max. = 40 years), and there were only little differences of age between men and women. The distribution of age throughout the sample was asymmetrically positive, since around half were close to 20 years old; these age groups came from the first study cycles (basic level), while 39.4% and 13.6% were in the 5th (intermediate level) and 9th and 10th study cycle (advanced level), respectively.

As for religion, the participants were mostly catholic, this being a characteristic found in the population of religious affiliation in Peruvian society, since Catholicism is more frequent, also being the official religion (Peruvian Democratic Constituent Congress, 1993). The educational institutions where most students hail from also justifies this, due to the fact that they're all from mostly private and catholic schools.

Measures

The Morally Debatable Behaviors Scale (Harding and Philips, 1986). This self-reporting instrument estimates the degree of permissiveness regarding the three phases of morality: sexuality, legality and honorability. The instrument has been randomly applied by doses on large stratified samples in 10

Table 1

Demographic information of participants

	n	%		n	%
Sex			Current work		
Female	187	73.6	Yes	65	25.6
Male	67	26.4	No	189	74.4
Religion			Family situation		
Catholic	192	75.6	Both parents	145	57.1
Evangelical	12	4.7	Single father	7	2.8
Other	19	7.5	Single mother	55	21.7
None	31	12.2	Alone	47	18.5
High school			Number of siblings		
Catholic private	101	39.8	None	22	8.7
Lay private	39	15.4	One	78	30.7
State	66	26.0	Two	87	34.3
Pre-college	17	6.7	Three	35	13.8
Other	31	12.2	More than three	32	12.6
Study level					
1 and 2 (Basic)	121	47.7			
5 (Intermediate)	98	38.6			
9 (Advanced)	18	7.1			
10 and 11 (Advanced)	17	6.7			
Age					
Level 1 (16-20 years)	153	60.2			
Level 2 (21-24 years)	69	27.2			
Level 3 (25-40 years)	32	12.6			

Note: Own resource

European countries (Robinson, Shaver and Wrightsman, 1991), and its internal structure has barely changed in the following studies. It contains 22 items that show behavior in which the interviewed subject must manifest his/her level of acceptance, which is registered on a scale from 1 point (never acceptable) to 10 points (always acceptable). This scale can be used as a universal indicator for the acceptance of controversial situations under which morality works (Mathiesen et al., 1998; Mathiesen et al., 2002). In regard to its structural validity, Harding and Phillips (1986) obtained a factorial structure made up of three sub-scales: Sexual Morality (with new items focused on life, death and sexual relations); Self-interested or Honorable Morality (eight items referring to personal integrity or honorability) and Legal-illegal Morality (with eight reagents about behavior banned by the law). This result was also supported by the factorial analysis done by Katz et al. (1994). In the Chilean adaptation done by Mathiesen et al. (1998), three sub-scales and a relative factorial complexity was found between some items (for example, they point out the existence of three items common to the sub-scales of Self-interest and honorable Morality and Legal-illegal Morality). The correlations between the sub-scales and the total scale were around .83; these results are indicative of possible redundancies within the Chilean sample.

Regarding the internal consistency, in Chile, Mathiesen et al. (1998) reported a Cronbach alpha of .79 for the total scale. The three sub-scales were also varyingly reliable, due to that their alphas fluctuated between .80 for legal-illegal, .72 for honorability and .62 on the sexual sub-scale. The revision done by Katz et al. (1994) found strong stability in the scoring ($r = .93$), and an internal consistency of around .89. Other studies reported the use

of some parts of this instrument for morality in general (Wirtz and Kum, 2004), as well as for moral attitudes (Bègue, 2001a) in adults. Harding and Phillips (1986) use the correlational evidence about the differences in demographical characteristics within the studied American sample, as backup for the validity. For example, inconsistent correlations were found between morality, religion and sex: men are more permissive than women; atheists are more permissive than Catholics and these are more permissive than Protestants and members of other religions. Recently, studies done on Peruvian samples (Grimaldo, 2009; Merino and Grimaldo, 2010, 2011) revealed positive psychometric characteristics in regard to reliability and validity of the internal structure, as well as a moderate grade of factorial complexity replicable in some items (Merino and Grimaldo, 2011).

Procedure

A standard procedure was followed in line with general and specific instructions for the implementation of surveys in groups; in other words, examples of marking points and careful reading of the instructions. The honest answer was emphasized, as well as the importance of responding every question with as much possible fidelity to what one thinks about the listed items. In general, the appropriate conditions were followed in order to minimize the impact from the measuring error coming out of the evaluated situation. Before applying the instrument, the method of application was communicated to all the students, as well the voluntary nature of this study.

In regard to the statistical analysis, an investigation was done about rankings based on added data about the participants and their answers, according to each item. For it to be done, the average score in each item

was obtained according to gender, religious affiliation and age. Afterwards, the items' medians were transformed into rankings, 1 being the number that indicates the highest average score. The procedure means that the obtained vectors from the rankings represent the perceived importance that stems from the mentioned transformation. This method was also applied to estimate the rankings from the items' medians in the Chilean sample, taken from Mathiesen and Mora's (1998) study. Therefore, the information will allow a secondary data analysis to be done about the previously published information (Kiecolt and Nathan, 1985).

A problem that comes up when examining the ranking based data, is that traditional procedures like Spearman's rank correlation (1994), don't focus on the rankings considered most important. They don't focus on rankings that generally represent what the subject values as most important; the first items that the test subjects choose are what establish these rankings. For example, the use of Spearman's rho supposes that the researcher treat all rankings with the same weighing; but generally one pays more attention to the rankings that a group or individual perceives first, in order to establish each ranking's importance. Quantitatively assigning importance to rankings demands pondering the first rankings from the answers' vectors. Iman and Conover (1987) and Conover and Iman (1985) suggested a type of correlation that emphasizes the first rankings of two variables; they call it the top-down correlation (r_{td}). For their calculation, the rankings were first converted into savage scores (Savage, 1956), and afterwards were applied the usual Pearson correlation. The savage scored are transformations that are shown in expected rankings from an exponential distribution; for

their calculation, the assigned ranking and the sample size are taken into account, and with this method one of the margins of the rankings' distribution can be pondered. For the current investigation the first rankings were weighted with more magnitude, just as how the top-down correlation's methodology (Conover and Iman, 1985) suggests doing.

RESULTS

The results are presented with a description of the items' distributional properties, and afterwards the similarities between rankings are exposed using Spearman's correlation and the top-down correlation (r_{td}).

Distribution

The range of answers in each item was extended from the lowest (1) to the highest (10) value possible, except for item 3, which was extended up to option 9 (see table 2). All the median values were distanced from the modal values, in which the mode for all items was 1, except for items 12, 15 and 16, in which the modal value was 5. To estimate the distance from normality, the standardized coefficient was obtained by dividing the coefficient from the standard error (Onwuegbuzi and Daniel, 2002). Doing so, asymmetrical distributions that went from moderate to greatly distant from normality were found, especially for items 1 to 11, 18, 19 and 20. Items 12, 15, 17 and 21 showed distributions that can be closer to normality; however, this conclusion must be moderate because of the discrepancy between the items' average values and mode. Therefore, even though these items' skewness and kurtosis coefficients suggest distribution that is close to normal, the frequency on the value scales don't determine if they can be considered as such. This same tendency was found in the kurtosis.

Comparison of rankings

Peruvian-Chilean Sample. Spearman's correlation between our study's ranking and the Chilean study's (Mathiesen and Mora, 1998) show a high level of similarity between them ($\rho = .79, p < .001$), indicating a similar

pattern between the justification of the controversial situations (see table 2). This considerable agreement takes into account the total regulation of all the variables, in a way that within the first rankings that derive from the most representative judgments in both samples, the interpretation of this association

Table 2

Descriptive statistics on each item on the study sample

	M	Rankings		SD	Skewness	Kurtosis
		Perú	Mathiesen and Mora (1998)			
1. Benefits	2.78	13	10	2.54	1.67	1.80
2. Transportation fare	3.23	8	8	2.60	1.11	0.15
3. Tax evasion	2.20	19	14	1.77	1.87	3.20
4. Buying stolen stuff	2.75	14	13	2.21	1.51	1.90
5. Taking a car	2.31	17	19	1.94	1.77	2.75
6. Smoking marijuana	2.53	15	12	2.25	1.54	1.74
7. Keeping money you found	4.17	7	2	2.70	0.63	-0.59
8. Lying in your own interest	3.07	10	9	2.31	1.12	0.50
9. Affairs when married	2.07	20	17	2.05	2.30	4.86
10. Early sex	4.79	4	4	2.93	0.36	-1.02
11. Accepting a bribe	2.00	21	22	2.00	2.47	5.69
12. Homosexuality	5.49	2	11	3.02	0.00	-1.22
13. Prostitution	2.83	12	18	2.39	1.38	1.17
14. Abortion	2.97	11	14	2.63	1.27	0.51
15. Divorce	5.87	1	3	3.03	-0.16	-1.19
16. Fighting with the police	4.59	6	7	2.60	0.37	-0.62
17. Euthanasia	4.76	5	5	3.11	0.27	-1.20
18. Suicide	2.50	16	16	2.46	1.80	2.29
19. Failing to report	3.09	9	6	2.33	1.21	0.93
20. Threatening	1.91	22	21	1.96	2.64	6.78
21. Killing in self-defense	5.39	3	1	3.25	0.05	-1.38
22. Political assassination	2.28	18	20	2.28	1.89	2.65

seems to change, since Spearman's correlation cannot be reasonable with this situation. The top-down correlation (Iman and Conover, 1987) ponders the first rankings to estimate the level of agreement, assuming that they're the biggest points of influence to judge the agreement between two ranking's vectors. Through the top-down correlation, the association between them was of .55 ($p < 0.01$), indicating that the assigned rankings between the two samples are moderately dissenting. This happens because the first rankings from the Peruvian sample are generally lower than the rankings from the Chilean sample, pointing to a lower tendency so justify controversial situations, like the ones listed on the instrument. Without a doubt, conduct 12 (homosexuality) has proven greater discrepancy between both groups, the Peruvian group being relatively more tolerant.

Comparison per gender. Using both types of correlation, the similarity between the rankings of males and females was high, as seen on Table 3, and both techniques provide the same image on the controversial acts that are most tolerant among them. This suggests that the tolerance towards controversial acts such as divorce, homosexuality, killing on self-defense, euthanasia, and fighting with police are the most emphasized topics in the perception of males and females and that they match as the first acts in which both sexes are most permissive.

Comparison per age. Similar to what the reported in the previous paragraph, both techniques lead to the same conclusion; in other words, along the listed controversial behaviors and among the first behaviors in this list, the consensus was high. The consensus using the top-down correlation was lower (r_{td} average = .93) than the Spearman correlation ($\rho = .96$), but if we treat these average correlations as independent (Silver, Zaikina, Hittner and May, 2008), the difference among them was not

statistically significant ($\chi^2[1] = 0.78, p = .67$). Concordance of these three groups regarding the most tolerated controversial behaviors matches what happened between males and females, so that the same behaviors tend to be among the first ranked as not permissive.

Comparison per religion. On Table 4, the analysis revealed that the concordance of rankings was lower in the previous groups compared given that the average rho correlation was .85; this concordance level is still high and considers the entire order of rankings. However, when we focus on the concordance among the first rankings, it was lower (r_{td} average = .62); thus, this indicates that the top-down concordance in this group was lower and detected discrepancies among the first rankings; this average correlation was also lower than in the comparisons of the previous groups analyzed. However, using the correlation comparison method (Silver et al., 2008), both correlations (ρ and r_{td} averages) were not statistically significant ($\chi^2[1] = 2.68, p = .26$). In both correlational techniques, the Evangelical group was the less concordant regarding the other believers, while the Catholics and the other undefined groups showed a relatively higher concordance. One of the most discrepant behaviors is that regarding pre-marital sex, since the Evangelical is a lot less permissive when compared to the other groups in this category. On Table 3, we can also see that the average score of each behavior in the Evangelicals tends to be of a lower magnitude than in other religious groups.

DISCUSSION

The aim of this work was to explore the hierarchization of the questionable behaviors obtained from a modification to the valuing procedure for such behaviors. Based on these modifications, questionable behaviors

Table 3
Average values and corresponding rankings for the items

Item	Sex				Age						Religion							
	Male		Female		Level 1		Level 2		Level 3		Catholic		Evangelical		Other		None	
	M	Rn	M	Rn	M	Rn	M	Rn	M	Rn	M	Rn	M	Rn	M	Rn	M	Rn
1. Benefits	2.78	13	3.3	16	2.84	14	2.64	14	2.78	9	2.79	13	2.50	14	2.16	16.5	3.16	14
2. Transportation fare	3.23	8	3.45	14	3.52	8	2.87	10	2.66	11	3.24	8	2.92	10.5	3.00	9	3.45	11
3. Tax evasion	2.17	19	2.42	21	2.40	18.5	1.75	20	1.94	19	2.18	19	2.08	19	1.79	20	2.32	22
4. Buying stolen stuff	2.74	14	3.78	9	2.86	13	2.78	13	2.13	17	2.76	14	3.08	7	2.37	13	2.74	19
5. Taking a car	2.3	17	2.94	18.5	2.49	16.5	1.87	19	2.34	15	2.26	17	1.75	22	2.00	18	3.00	16
6. Smoking marijuana	2.52	15	3.75	10.5	2.49	16.5	2.54	15	2.66	11	2.43	15	2.33	16	2.32	14	3.32	12
7. Keeping money	4.16	7	5.19	5	4.35	7	3.77	7	4.09	6	4.19	7	3.17	5.5	3.53	6.5	4.71	7
8. Lying in your own interest	3.07	10	3.67	12	3.27	10	2.96	9	2.41	14	3.05	9	2.92	10.5	2.79	10	3.48	10
9. Affairs when married	2.07	20	3.31	15	2.18	21	1.94	18	1.81	20	2.06	20	2.25	17	1.16	22	2.61	21
10. Early sex	4.79	4	6.64	1	4.94	4	4.71	5	4.22	5	4.83	4	2.92	10.5	4.84	2	5.23	5
11. Accepting a bribe	2	21	2.61	20	2.20	20	1.74	21	1.59	21	1.93	21	2.08	19	1.63	21	2.65	20
12. Homosexuality	5.49	2	5.1	6	5.62	2	5.67	2	4.47	4	5.81	2	3.17	5.5	3.68	5	5.52	4
13. Prostitution	2.83	12	4.16	8	2.89	12	2.80	12	2.66	11	2.88	12	1.92	21	2.47	11.5	3.13	15
14. Abortion	2.97	11	3.66	13	2.95	11	3.04	8	2.91	8	2.91	11	2.67	13	2.21	15	3.94	8
15. Divorce	5.89	1	5.75	3	5.99	1	5.99	1	5.22	2	5.99	1	4.92	1	4.74	3	6.39	2
16. Fighting with the police	4.59	6	4.72	7	4.75	5	4.70	6	3.66	7	4.54	6	3.92	3.5	4.95	1	5.00	6
17. Euthanasia	4.74	5	5.48	4	4.61	6	5.00	4	4.78	3	4.66	5	3.92	3.5	3.53	6.5	6.29	3
18. Suicide	2.5	16	3.28	17	2.60	15	2.32	16	2.44	13	2.42	16	3.00	8	1.89	19	3.23	13
19. Failing to report	3.09	9	3.75	10.5	3.37	9	2.86	11	2.31	16	2.98	10	2.92	10.5	3.37	8	3.71	9
20. Threatening	1.91	22	2.22	22	2.12	22	1.64	22	1.53	22	1.69	22	2.42	15	2.16	16.5	2.97	17
21. Killing in self-defense	5.39	3	6.15	2	5.45	3	5.32	3	5.28	1	5.40	3	4.00	2	4.53	4	6.45	1
22. Political assassination	2.28	18	2.94	18.5	2.40	18.5	2.12	17	2.09	18	2.20	18	2.08	19	2.47	11.5	2.77	18

Note: M = mean; Rn = ranking based on mean figures

sorted out by the degree or permissiveness by gender, age, and religion were compared. The instrument used was The Morally Debatable Behaviors Scale (Harding and Phillips, 1986) adapted by Katz et al. (1994), that has been used since the past decade in Hispanic research, as mentioned in the previous paragraphs. From the review made in the literature regarding the use of this instrument, we could state that it is the first time that the assessment of information is obtained through the ranking of participants' answers to each item and thus, our results can

contribute a type of information that has not been expressed in prior studies.

Our research has revealed that the fix effects of religious affiliation contribute to differentiate on the extent of permissiveness of acts considered as morally debatable. A practical consequence of this focuses on the understanding of individual differences produced by the ideological set promoted by the religious groups. In our results, the Evangelical group tends to show a less tolerant attitude on

Table 4

Unweighted and weighted correlations (top-down)^a

	Simple ranking ^b				Savage ^c			
	M .	F .			M .	F .		
Sexo								
Male (V)	-				-			
Female (M)	.89	-			.91	-		
Age	Level 1.	Level 2.	Level 3		Level 1.	Level 2.	Level 3	
Level 1	1.0	-	-		1.0	-		
Level 2	.98**	1.0			.93**	1.0	-	
Level 3	.94**	.95**	1.0		.93**	.93**	1.0	
Religion	Ca .	Ev .	Oth .	N .	Ca .	Ev .	Oth .	N .
Catholic (Ca)	1.0	-	-	-	1.0	-		
Evangelical (Ev)	.82**	1.0	-	-	.49*	1.0	-	
Other (Oth)	.88**	.78**	1.0	-	.73**	.49*	1.0	-
None (N)	.94**	.85**	.86**	1.0	.71**	.54**	.79**	1.0

** $p < 0.01$;

^a: The significance level was corrected by the Bonferroni adjustment; b: Spearman rho correlations; c: Pearson correlations using Savage scores

the controversial behaviors that we researched; and although the simple adscription to this group does not explain the phenomenon, attention can be focused on this source of differences so as to extend the research. According to Esmilde (2004), the Evangelicals provide a clear, rigorous, individualist, abstract and absolute moral; also, they are more conservative in matters pertaining to sexuality and family (Chacón, 2002), and that can explain their lower tolerance. Thus, we believe that examining the persistence of religious attitudes, as well as their resistance in situations of moral conflict, will provide explanations to the differences we found. On the other hand, it seems like people who practice the Catholic Roman religion are less competent morally (Bloom, 2012), which can lead to be more permissive and tolerant faced with socially debatable behaviors.

Additionally, we found that the differences between males and females were of a lesser extent; thus, our evidences suggest a similarity between them regarding morally debatable behaviors. However, this similarity does not translate into equality, and any disagreements around the particular information of each debatable behavior can reveal even small discrepancies. Specifically, the small differences between males and females show that, in each debatable behavior studied, females tend to be less permissive than men; but, as stated, the controversies were not statistically significant. This same description applies also to the small differences among age groups, which leads us to conclude that the extent of permissiveness tends to remain relatively constant between the group of 16 and 40 years of age. This does not allow to conclude that age lacks a fix effect on permissiveness, rather that we have not found evidences that its impact produces differences between the majority of university students in our study.

Our data reflect some approving and justifiable behaviors, such as divorce, homosexuality and killing in self-defense. In the case of the first two aspects, we stated that we are in a moment where we can see that the world is struggling to obtain freedom of choice and equality. In that sense, divorce is considered as a valid option, among other possibilities, and where homosexuality is another expression of this openness, also acceptable. In the case of divorce, the change in its tolerance seems to be related to the consequence of a personal decision over the couple relationship, since it is currently perceived as a valid solution for marriage conflicts in adults, and may receive positive attitude from adolescents who have experienced their parents' divorce (Amato and Booth, 1991; Greenberg and Nay, 1982). Another behavior that the group justifies is homosexuality, which is probably accepted due to the attitude changes in the world. The above results match those reported by Mathiesen et al. (2004), who found a significantly larger average of acceptance of homosexuality in a Chilean sample. Even though prejudice against lesbians and gays is generalized and historic, these have become less negative in the last 30 years and especially in the last decade (Whitley, 2002), reaching Latin American countries where prejudice from heterosexual against homosexual individuals has changed positively along time (Acuña and Vargas, 2006).

As to killing in self-defense, this would be explained from a situation of violence experienced daily, where this extreme response can be accepted contextually when they feel threatened, especially in a city where juvenile gangs are ever increasing (Policía Nacional del Perú, 2008). The university social atmosphere can be considered a proximal variable of the influence in moral attitudes (Smolicz, Hudson and Secombe, 2001) and, thus, we believe

that this aspect may explain the convergence between the answers from males and females and between students of different ages. But, as already pointed out, the religious affiliation seems to not diminish its impact during university studies. This conclusion must be moderate given the ideological characteristics of our study participants' university setting that could homogenize their tolerant attitudes.

Considering all these points, discrimination of perception of tolerance was more notorious among the different religious groups. Methodologically, we highlight that it was possible to reveal such differences due to a change in the quantitative estimations of the rankings through the Savage scores. This way, weighing the items with the Savage scores and applying the top-down correlation, a greater variability among the first rankings of religious groups was observed. In contrast, a Spearman rho detected a general similarity considering all the rankings. This discrepancy does not only highlight the convenience of a different method in the treatment of rankings to study their similarity, but also the appropriate approach of the study objectives.

In our research, we differentiate two aspects: (a) the assessment of similarity among all questionable behaviors and (b) the description of those considered consensually more permissive. These consensually more permissive behaviors could be considered as the space of most importance in the research of similarity (or dissimilarity) among several of the groups studied.

A secondary result to the objectives of this research is related to the validity of the inferences about the instrument used. In that sense, the contents of the instrument seems to support its discriminant validity to differentiate attribute patterns identified according to their

degree of permissiveness. In that sense, the normative description that can be taken out of the instrument facilitated the summary of the answers through derivation of rankings from the items average scores. This was beneficial to describe groups, but it must be noted that they are aggregated data; in other words, a type of information that summarizes the tendencies observed in a single numerical estimator (in this situation, the item mean). Therefore, we state that although it was useful and, in a way, representative of the groups analyzed, our research must be replicated if a larger generalization than the information presented here is desired.

Together with the need for replication, other limitations can also be observed in the study. The sample is plausibly homogeneous, and the results can be applied to groups that the reader deem only as similar. On the other hand, the sample size of males is comparatively small, so the coefficients obtained (although statistically significant) can vary from one sample to the other. Also, a measurement that is closer to the individuals' religiosity must be considered, through a reliable and valid measurement. Finally, the results can express the cultural variability within a certain larger social reference group, in accordance with similarities in the socio-economic level, family values, life expectations and particular beliefs that will differ in other regions of the country (in this study, Perú).

The importance of estimating and differentiating tolerance can have a powerful impact in the tendency to action on morally debatable behaviors; but, even though permissiveness is not a pure predictor of the tendency to action of a controversial behavior, it is a cognitive support to make decisions on the behaviors to apply in a specific situation. If we add that the cultural context can tone down the

intensity of tolerance, then this shall include the diverging cultural aspects that can be observed in countries with multiple ethnic groups, such as Perú (Fuller, 2004) and other Latin American nations. Thus, the continuity of the research in this area seems warranted.

REFERENCES

- Acuña, A. y Vargas, R. (2006). Diferencias en los prejuicios frente a la homosexualidad masculina en tres rangos de edad en una muestra de hombres y mujeres heterosexuales. *Psicología desde el Caribe*, 18, 58-88.
- Amato, P. R. y Booth, A. (1991). The consequences of divorce for attitudes toward divorce and gender roles. *Journal of Family Issues*, 12, 306-322. doi: 10.1177/019251391012003004
- Bègue, L. (2001a). Religious affiliation and social commitment as determinants of moral attitudes in the prevention of AIDS or the fight against poverty. *Journal of Psychology*, 135 (5), 571-576.
- Bègue, L. (2001b). Value hierarchies of French Catholics committed to the fight against AIDS. *Journal of Social Psychology*, 141(1), 139-140.
- Bloom, P. (2012). Religion, morality, evolution. *Annual Review of Psychology*, 63, 179-199. doi: 10.1146/annurev-psych-120710-100334
- Congreso Constituyente Democrático del Perú (1993). *Constitución Política del Perú*. Lima: Autor.
- Conover, W.J. y Iman, R.L. (October, 1985). *A Measure of Top-Down Correlation*. Proceeding of SAND85-0601. Albuquerque, NM: Sandia National Laboratories.
- Chacón, A. (2002). Religión y modernidad: Protestantismo en Chile. *Revista de Ciencias Sociales*, 12, 67-76.
- Chamblás, I., Mathiesen, M., Mora, O., Navarro, G. y Castro, M. (2000). Funcionamiento familiar. Una mirada desde los hijos/estudiantes de enseñanza media de la provincia de Concepción. *Revista Electrónica de Trabajo Social Universidad de Concepción*, 4. Disponible en <http://www2.udec.cl/~ssrevi/numero4/articulofamilia.htm>
- Duriez, B. y Soenens, B. (2006). Religiosity, moral attitudes and moral competence: A critical investigation of the religiosity-morality relation. *International Journal of Behavioral Development*, 30(1), 76-83. doi: 10.1177/0165025406062127
- Emergen, M. (1996). Through tinted glasses: Religion, worldviews and abortion attitudes. *Journal of Scientific Study of Religion*, 35(1), 41-55. doi: 10.2307/1386394
- Esmilde, D. (2004). Los evangélicos y la polarización: La moralización de la política y la politización de la religión. *Revista Venezolana de Economía y Ciencias sociales*, 10(2), 163-179.
- Fuller, N. (2004). Contrastes regionales en las identidades de género en el Perú urbano: El caso de las mujeres de la baja Amazonía. *Anthropologica*, 22(22), 119-136.
- Gibbs, J. (1992). *Moral Maturity. Measuring the development of sociomoral reflection*. New Jersey: Erlbaum.
- Gibbs, J. C. (2003). *Moral development and reality: Beyond the theories of Kohlberg and Hoffman*. Thousand Oaks, CA: Sage.
- Gilligan, C. (1985). *La Moral y la Teoría Psicológica del Desarrollo Infantil*. México: Fondo de Cultura Económica.
- Greenberg, E. F. y Nay, W. R. (1982). Intergenerational transmission of marital instability reconsidered. *Journal of Marriage and the Family*, 44, 335-343.

- Grimaldo, M. (2009). Permisividad y conciencia moral en estudiantes universitarios de Lima. *Cultura*, 23, 189-206.
- Harding, S. y Philips, D. (1986). *Contrasting values in Western Europe. Unity, diversity and change*. London: Macmillan.
- Iman, R. L. (1987). Tables of the exact quantiles of the top-down correlation coefficient for $n = 3(1)14$. *Communications in Statistics - Theory and Methods*, 16(5), 1513 - 1540. doi: 10.1080/03610928708829452
- Iman, R. L. y Conover, W. J. (1987). A measure of top-down correlation. *Technometrics*, 29(3), 351-357.
- Jensen, L. (1997). Different worldviews, different morals: America's culture war divide. *Human Development*, 40, 325-244.
- Katz, R. C., Santman, J. y Lonero, P. (1994). Findings on the Revised Morally Debatable Behaviors Scale. *Journal of Psychology* 128(1), 15-21. doi: 10.1080/00223980.1994.9712707
- Kiecolt, K. J. y Nathan, L. F. (1985). *Secondary analysis of survey data*. Beverly Hills, CA: Sage.
- Kohlberg, L. (1976). Moral stages and moralization. *Moral Development and Behavior Theory, Research and Social Issues*, 31-52.
- Kohlberg, L. (1984). *The psychology of moral development*. San Francisco: Harper & Row.
- Lind, G. (2007). *La Moral puede enseñarse. Manual teórico-práctico de la formación moral y democrática*. México D.F.: Trillas.
- Lind, G. (2008). The meaning and measurement of moral judgment of moral judgment competence. A dual aspect model. In D. Fasko & W. Willis (Eds.), *Contemporary Philosophical and Psychological Perspectives on Moral Development and Education* (pp. 185-220). Creskill: Hampton Press.
- Mathiesen, M., Mora, O. y Castro, M. (1998). Valores de los estudiantes de la Universidad de Concepción (Chile): Aplicación de la Escala de Comportamientos Morales Controvertidos. *Revista Latinoamericana de Psicología*, 30(1), 121-136.
- Mathiesen, M., Mora, O., Chamblás, I. y Navarro, G. (2004). Familia, permisividad y juicio moral en estudiantes de enseñanza media de la provincia de Concepción. *Psykhé*. 13(1), 3-20.
- Mathiesen, M., Mora, O., Chamblás, I., Navarro, G. y Castro, M. (2002). Valores Morales y familia en estudiantes de enseñanza media de la provincia de Concepción. *Revista de Psicología*, 11(2), 55-74.
- Merino, C. y Grimaldo, M. (2010). Complejidad factorial de la permisividad moral hacia las conductas moralmente controvertidas. *Interdisciplinaria*, 27(2), 297-314.
- Onwuegbuzie, A. J. y Daniel, L. G. (2002). Uses and misuses of the correlation coefficient. *Research in the Schools*, 9(1), 73-90.
- Policía Nacional del Perú (2008). *Estudio Situacional de la Violencia Juvenil en Lima y Callao 2007-2008*. Lima: Dirección de Investigación y Desarrollo del Estado Mayor General de la Policía Nacional del Perú-Terre des Hommes.
- Robinson, J, Shaver, P. y Wrightsman, L. (1991). *Measures of Personality and Social Psychological Attitudes*. San Diego, CA: Academic Press.
- Rocas, S. y Schwartz, S. (1997). Church-state relations and the association

- of religiosity with values: A study of Catholics in six countries. *Cross-Cultural Research*, 31, 356-375. doi: 10.1177/106939719703100404
- Sánchez, S. (2012). Valores morales, empatía e identificación con los personajes de ficción. El Universo representativo de "Cuéntame cómo pasó". *Revista Mediterránea de Comunicación*, 3(2), 83-110.
- Savage, I. R. (1956). Contributions to the theory of rank order statistics - the two-sample case. *Annals of Mathematical Statistics*, 27, 590-615. doi: 10.1214/aoms/1177705904
- Schwartz, S. y Huismans, S. (1995). Values priority and religiosity in four western religions. *Social Psychology Quarterly*, 58, 88-107.
- Silver, N. C., Zaikina, H., Hittner, J. B. y May, K. (2008). INCOR: A computer program for testing differences among independent correlations. *Molecular Ecology Resources*, 8, 763-764. doi: 10.1111/j.1755-0998.2008.02107.x
- Smolicz, J. J., Hudson, D. M. y Secombe, M. J. (2001). Some aspects of moral values among university students in three societies: Poland, Australia and the Philippines. *International Education Journal*, 2(4), 203-208.
- Spearman, C. (1904). The proof and measurement of association between two things. *American Journal of Psychology*, 15, 72-101.
- Whitley, B. (2002). Gender-role variables and attitudes toward homosexuality. *Sex Roles*, 45, (11/12), 691-721. doi: 10.1023/A:1015640318045
- Wirtz, J. y Kum, D. (2004). Consumer cheating on service guarantees. *Journal of the Academy of Marketing Science*, 32(2), 159-175. doi: 10.1177/0092070303261416
- Wowra, S. A. (2007). Moral identities, social anxiety, and academic dishonesty among American college students. *Ethics & Behavior*, 17(3), 303-321. doi: 10.1080/10508420701519312