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DEVELOPMENT AND PSYCHOMETRIC PROPERTIES OF MORAL DISENGAGEMENT SCALE FOR ADOLESCENTS

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ABSTRACT

The purpose of the present study was to construct an indigenous tool of Moral Disengagement for Adolescents based on Bandura's model of moral disengagement. Initially, item pool of 90 items was generated through a review of literature and seeking experts' opinion. This Item pool was lessened to 76 items after carrying out expert evaluation and pilot testing. Test-retest procedure scrutinized 40 highly correlated items later on. For factor analysis, sample of 400 adolescents with mean age 16.72 years (SD=1.84) was selected. Exploratory Factor Analysis resulted into six factors comprising of 26 items (KMO= .8). Rotated Varimax factor analysis of 26 items showed that factor loadings range from .42 to .79 for the six factors, which explain 52.28% of the total variance. Confirmatory factor analysis confirmed the same structure after deletion of two more items with good model fit indices into six subcategories. Alpha reliability for full scale was .80 indicating that scale is highly reliable. Results of subscale and total scale scores and items and subtotal scores ranges from high to adequate which are indicating the internal consistency of Moral Disengagement Scale for adolescents.

Keywords: *Development, Psychometric, Moral Disengagement, Adolescents*

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INTRODUCTION

Concept of moral disengagement was originated by Bandura (1990). It is a course of urging oneself that ethical principles are not applicable to her/him in a particular situation. In this manner ethically detached persons restrict the mechanism of self-condemnation (Bandura, 1992). Moral disengagement encompasses eight mechanisms such as cognitive restructuring, moral justification, euphemistic labeling, advantageous comparison, displacement or diffusion of responsibility, disregard or distortion of consequences, dehumanization, and attribution of blame (Bandura, 2002). Moral justification is a domain of moral disengagement which works on the reconstruction of the conduct itself. Further, moral justification is linked with making the malevolent conduct individually and publicly tolerable by depicting it as performing well-intentioned or ethical purposes in general. In this way, persons can follow an ethical imperious and reserve the opinion of being an ethical person while imposing damage to others. Area wise differences in the social approval and usage of ferocious ways are foreseeable from ethical rationalizations engrained in a socio-cultural principle of integrity (Cohen & Nisbett, 1994). For instance, prompt fundamental changes in damaging conduct through ethical rationalization are best amazingly exposed in armed forces behavior (Kelman, 1973). Euphemistic labeling is also a mechanism based on cognitive restructuring of moral disengagement. Actions are based on thought patterns which are shaped by the languages. Sugar coated languages are such a powerful tool that even killing someone lost much of its bitterness. Persons act far more brutally when harassing movements are orally cleaned (Diener, Dineen, Endresen, Beaman, & Fraser, 1975). For example, students sanitized their cheating conduct as helping behavior or killed soldiers on the borders are named as a martyr of the nation (Gambino, 1973). Sugar coated words are utilized widely in hostile actions that individuals do from off and on. Advantageous comparison is the next mechanism of moral disengagement which is defined as, how conduct is seen, is tinted by what it is equated against. Unacceptable deeds can be made virtuous by misusing the contrast principle. A more odorous the contrasting brutalities, the more probable that one's own damaging behavior will seem benign. By manipulating the contrast rule, shameful deeds might be displayed as virtuous. For instance, Vietnam gigantic damage was lessened through depicting the American armed interference as securing the highly populated areas from communist dependence (Bandura, 1999).

Putting oneself aside from massive brutalities is also done by using the mechanism of displacement of responsibility which is practiced most frighteningly in socially authorized gross killings. It is about disguising, or minimalizing the agentive part in the damage one causes. Individuals will act in forms they usually reject, if a genuine expert takes accountability for the consequences of their behavior (Milgram, 1974; Diener, 1977). Underneath displaced accountability, individuals view their behaviors as curtailing from the directives of the ruling classes instead of being individually accountable for that. They get spared from self-accusing responses as they are not considered as the real mediator of their behaviors (Badura, 1999). The implementation of moral sanctions is also enfeebled when the self-sanction is slept by diffusing responsibility for harmful conduct. This could be achieved by dividing the tasks. This division of labor makes the task mild and harmless in itself. People began to concentrate more on their specific set of task rather than on the whole details. An additional typical practice that a permit otherwise caring person to behave cold-bloodedly is group decision-making. Where everybody is responsible, no one actually feels answerable. Anonymity of ones' actions is another convenient tool for waning moral regulations (Bandura, 2000). In order to commit inhumanities freeing oneself from responsibility is not enough. "Minimizing, disregarding, or distorting" the results of one's conduct is further mechanisms of weakening ethical control. When individuals go for conducts that damage others, they refrain from confronting the damage they reason or lessen it. If underestimation of consequences does not play a role, then individual discredits the harmful act. By applying the above mentioned mechanisms little reason remains for the activation of self-censure. Moral regulator functions most powerfully when persons admit that they are the reason of damage via their harmful behaviors.

The moral disengagement mechanisms also work on the receivers of damaging acts. The power of ethical self-control is contingent on how the culprits respect the individuals they maltreat. Self-criticism for brutal demeanor may be undone or reduced by undressing persons of human attributes. Once they are dehumanized, they are not considered as individuals with emotions, concerns, hopes, and worries, but as below-human objects. Dehumanization, the second last category of detachment practices, functions on the receivers of harmful actions. The power of moral self-disapproval contingent partially on how the wrongdoers assess the individuals they maltreat (Milgram, 1974; Bandura, 1990). Attributing the victim is another advantageous mechanism that helps self-defending tenacities. People thought that there is nothing wrong with them, rather victim is

responsible for provocation for injurious conduct. A victim is thought to be responsible for brutal acts (Bandura, 1999).

There are people who practice feelings of humiliation and guiltiness for character growth, veracity and matured closeness on the other hand some apply "moral disengagement" to refrain from remorse and humiliation and keep on doing bad practices. The link amid ethical cognition and conduct is assisted by contrivances, which predate ethical deeds and are grounded on communal and ethical standards (Bandura, 2002; Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). In the course of emerging the ethics individuals inaugurate ideals and codes of being correct and incorrect, that are a communal regulatory codes for how to behave in communal states. Persons disapprove and assess their deeds alongside their self-formulated principles and act in manners that convey them a feeling of endorsement and conceit.

Previously, scale was developed for measuring different mechanism of moral disengagement by Bandura, Barbaranelli, Caprara, and Pastorelli (1996). This scale was adapted and translated in other languages. The Spanish and Danish translated versions based on four factor structure of Bandura, in which the eight factors were bunched into four areas (Obermann, 2011; Garay, Amor, & Carrasco, 2017). Teenage years are reflected as era of conversion from childhood to adulthood. In this era an individual goes over and done with number of vicissitudes both physical and mental. Teenage is moreover very significant for the growth of integrity (Paciello, Fida, Tramontano & Cerniglia, 2013). There are fewer researches on moral disengagement in Pakistan so there is a dire need to address the problems of moral and the personality development process of adolescents. Teenage is reflected as an era in which someone goes through terrific variations like bodily, emotive and mental. Further, adolescent constitute a significant part of world population, according to the statistic of 2017, 14 years age group constitutes25.44%, 15-24 years age group founds16.16% of total population (World demographic profile, 2018). While in Pakistan, 14 years age group constitute 31.36% and 15-24 years constitute 21.14% (Pakistan demographic profile, 2018). So, a large part of population is going through their adolescent periods. Furthermore, this era is very imperative for the growth of ethics and internalization of morality. Beside, moral development of individuals plays a remarkable part in the growth of a healthy civilization. Further, there is no local instrument exist to measure it. To measure moral disengagement in diverse section of population and over diverse life situations Pakistan still lacks such tool. So, there was a need to construct a local tool to assess moral

disengagement as Asian culture is pretty dissimilar from Western culture. Scale is in Urdu language so that individual can express themselves in better way. Researchers, psychologist, counselors and educationists will use the scale to assess the moral disengagement of adolescent student.

METHOD

The study comprised on three Phases

Phase I

Step I: Construct Domain Specification Generation of Item Pool

Items were by generated by using Guttman's facet analysis (Tziner, 1987; Guttman, 1959). The facet method requires describing or mapping of items according to aspects identified by theory or practice. The Items were produced according to the Bandura's model of moral disengagement. The literature was examined to figure out the clarification of eight mechanisms and transformed these into behavioral terms. Previous scales (Bandura, Barbaranelli,. Caprara & Pastorelli, 1996; Boardley & Kavussanu, 2007; Jackson & Sparr, 2005; Gini, Pozzoli, & Bussey, 2014) developed on moral disengagement following the Bandura's model were also consulted. Brainstorming meeting were conducted with researchers to dig out the behavioral conversion of moral disengagement mechanisms into culture's pertinent actions. 90 items were generated in this way.

Step II: Experts' Evaluation

For content validity he produced item pool evaluated by expert panel (Miller & Lovler, 2015). Those subject specialists were designated for appraisal who have familiarity of doing research particularly in scale construction. Five experts (Three PhDs, one PhD scholar, and one M.Phil) were asked:

- To evaluate each item for their appropriateness for the scale.
- To recommend the items that needed to be rephrased or alter.
- To assess the appropriateness and essentiality of material with reference to adolescents, construct of moral disengagement and general expression.

Grounded on panel views the items were changed and removed. After evaluation 76 items were selected. The items were rated by the experts on 5 point

that range from 1 to 5. After evaluation few items were altered and 14 were discarded.

Step III: Tryout of Scale

Finalized draft of moral disengagement scale, after content evaluation, was filled by 50 participants to check the appropriateness of items on respondents' end. Mean age of participants was 16.25 (*(±SD=1.64)*) years. Content evaluated, final draft of Moral disengagement scale was administered with the intention to find out the appropriateness of items on respondents' end. The aim of this workout was to pick out the unclear and tough words or sentences.

Phase II

Item Analysis

Item analysis was done for choosing the highly associated items for the development of the tool by using test-retest method (Table 2) (Dawis, 2000).

Participants

For this step, a sample of 284 adolescents with mean age of 16.73 (±*SD*=1.30) was recruited from different educational institutions of Gujrat. The demographic characteristics of the sample is given in Table 1.

Procedure

After seeking permission from respective institution's authorities, students were approached in their class rooms and data was obtained. The administered scale includes 76 items. After 10 days interval, the scale was re-administered on the same sample. Significantly correlated items were retained and after this scrutiny, 40 items were remained with correlation of above .4, 36 items with low correlation were eliminated (Table 2)

Statistical Analysis

Pearson product moment correlation coefficient was found out to determine the strength and significance of correlation between the first and second administration (Table 2).

Exploratory Factor Analysis

The structure of the scale was found out by using Exploratory Factor Analysis.

Participants

The sample of 400 students was recruited (264 Girls & 136 Boys) with mean age 16.72 years *(±SD=1.84),* from different educational institutions of Gujrat. (Table 3).

Procedure

The participation was wholly voluntary and unidentified. Firstly, the factors were estimated from 40 item scale. Various effective standards were used for the factor detection. Bartlett test of Sphericity (Table 6) identified the presence of correlation among variables. It specifies that the correlation matrix shows a significant correlation in the variables. Further, one sample adequacy was also an important analysis to explore the amount of correlation among the variables. It is considered as the important measure to establish the appropriateness of factor analysis. The adequacy value ranges from 0 to 1, if it's proceeding towards 1 it perfectly indicates that a variable is forecast the other variables with no errors. The value less than .5 is not acceptable (Hair, Black, Babin, & Anderson, 2010). These tests were used on the current data. Furthermore, it is important to have variables that are approximately normally distributed; it entails for the possible generalization of results (Field 2000). For this purpose, Skewness and kurtosis was used (Table 5). Value for skewness -1 to +1 and kurtosis -3 to + 3 is considered to be acceptable (O'Leary-Kelly & Vokurka, 1998).

Statistical Analysis

Exploratory factor analysis was carried out by using principle component analysis and varimax rotation.

RESULTS

Table 1
Demographic characteristic of sample (N=284)

	f	%	Mean	SD
Age (12-19 years)			16.73	1.30
Gender				
Girls	154	54.2		
Boys	130	45.8		
Education				
Middle	55	19.3		
Secondary	76	26.7		
Higher secondary	153	53.87		

Table 2

Pearson product moment correlation coefficient between the scores in first and second administration (N=284)

Item No.	*r*	Item No.	*r*
1	.546**	36	.759**
2	.430**	37	.727**
3	.705**	38	.794**
6	.741**	45	.687**
8	.738**	46	.687**
10	.683**	50	.622**
11	.604**	51	.680**
12	.740**	53	.748**
14	.738**	54	.73**
15	.415**	55	.713**
18	.437**	58	.575**
19	.605**	63	.669**
20	.743**	64	.648**
22	.767**	65	.659**
27	.783**	66	.751**
30	.546**	68	.677**
32	.729**	69	.618**
33	.743**	71	.73**
34	.735**	73	.697**
35	.753**	74	.652**

**p <.01

Table 3
Demographic characteristic of sample (N=284)

	f	*%*	*M*	*SD*
Age (12-19 years)			16.72	1.84
Gender				
Girls	264	66		
Boys	136	34		
Education				
Middle	136	34		
Secondary	113	28		
Higher secondary	151	38		

Table 4
Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity for Moral Disengagement Scale for Adolescents

		Bartlett's Test of Sphericity
	KMO	*Sig.*
Moral Disengagement Scale for Adolescents	.80	.000

p <.001

Table 5
Skewness and Kurtosis (N=400)

Skewness	.63
Std. Error of Skewness	.12
Kurtosis	.50
Std. Error of Kurtosis	.24

Table 6
Factor Loading of 26 item on MDSA after Varimax Rotation *(N=400)*

S#	Item No	DDR	AC	DH	AB	MJ	EL
1	**10**	.73					
2	**11**	.78					
3	**12**	.75					
4	**25**	.42					
5	**26**	.43					
6	**31**	.49					
7	**18**		.61				
8	**19**		.62				
9	**21**		.63				
10	**22**		.73				
11	**23**		.79				
12	**36**			.69			
13	**37**			.52			
14	**38**			.60			
15	**39**			.75			
16	**40**			.54			
14	**33**				.70		
18	**34**				.63		
19	**35**				.72		
20	**1**					.62	
21	**3**					.46	
22	**4**					.63	
23	**5**					.51	
24	**7**						.48
25	**8**						.69
26	**14**						.42

Note: DDR= Displacement and Diffusion of Responsibility; AC= Advantageous Comparison; DH= Dehumanization; AB= Attribution of Blame; MJ= Moral Justification; EL= Euphemistic Labeling
Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization

Table 7

Model Fit Indices of Confirmatory Factor Analysis with 26 items (N= 400)

P Value	*CMIN/DF*	*GFI*	*A GFI*	*CFI*	*RMSEA*	*RMR*
.000	2.28	.88	.86	.83	.06	.12

Table 8

Model Fit Summary of Confirmatory Factor Analysis with 24 items (N= 400)

P Value	*CMIN/DF*	*GFI*	*A GFI*	*CFI*	*RMSEA*	*RMR*
.000	1.782	.923	.901	.902	.044	.102

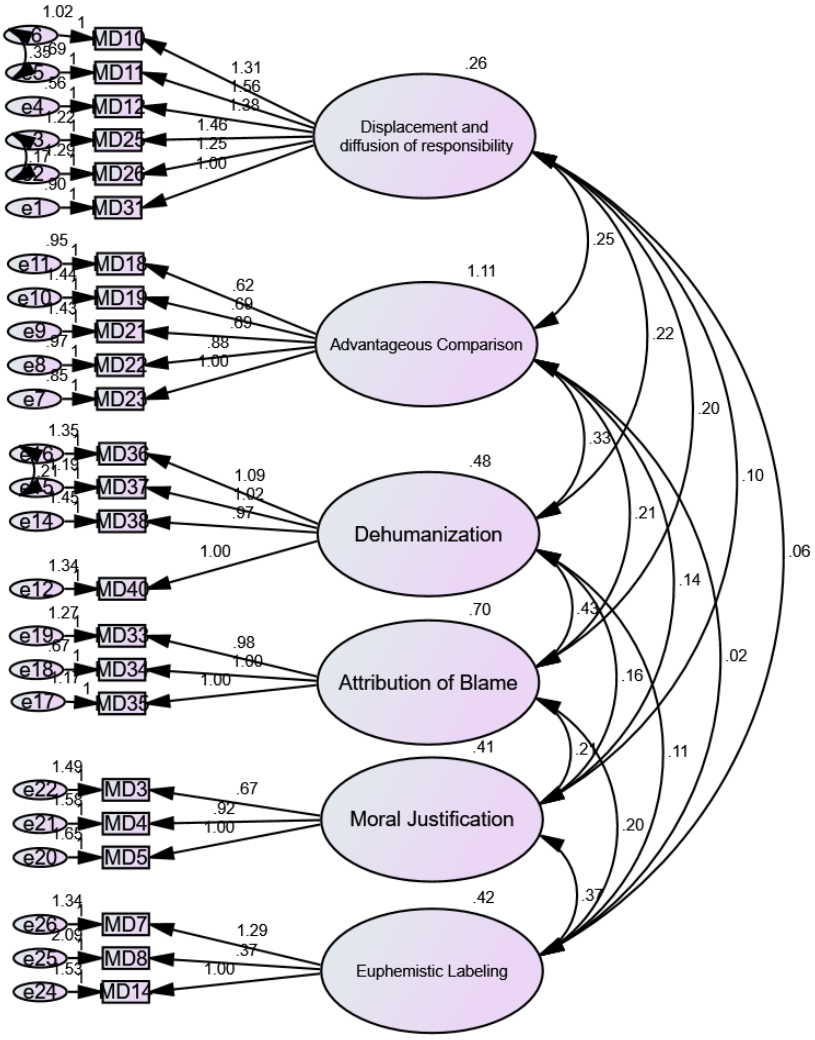


Figure 1: Confirmatory Factor Analysis Result in 24 item Moral Disengagement Scale for Adolescents (MDSA)

Table 9
Correlation between Subscales and Total Scale score (N=400)

Subscales	**Total Items**	***r***
Displacement and Diffusion of Responsibility	6	.73***
Advantageous Comparison	5	.63***
Dehumanization	4	.70***
Attribution of Blame	3	.61***
Moral Justification	3	.46***
Euphemistic Labeling	3	.43***

*** $p<.001$

Table 10
Correlation of Items with Subscales Total (N=400)

Item #	**DDR**	**AC**	**DH**	**AB**	**MJ**	**EL**
1					.63	
2					.66	
3					.70	
4						.70
5						.62
6	.70					
7	.78					
8	.72					
9						.66
10		.66				

Table 10
Continue

Item #	DDR	AC	DH	AB	MJ	EL
11		.69				
12		.68				
13		.72				
14		.77				
15	.67					
16	.62					
17	.57					
18				.80		
19				.75		
20				.79		
21			.74			
22			.70			
23			.69			
24			.64			

Note: DDR= Displacement and Diffusion of Responsibility; AC= Advantageous Comparison; DH= Dehumanization; AB= Attribution of Blame; MJ= Moral Justification; EL= Euphemistic Labeling

Table 11

Cronbach's Alpha Reliabilities of ***Moral disengagement*** *scale for adolescents and Six Subscales of MDSA (N=400)*

	Total items	**α**
Moral disengagement scale for adolescents	24	.80
Displacement and Diffusion of Responsibility	6	.76
Advantageous comparison	5	.75
Dehumanization	4	.62
Attribution of Blame	3	.68
Moral Justification	3	.74
Euphemistic Labeling	3	.74

** p <.01

DISCUSSION

The current study aim was to develop and established the psychometric properties of indigenous Moral Disengagement Scale for Adolescents. All procedure of scale development was followed. Firstly, scale included 90 items which were lessened to 76 after expert's assessment. In try out stage scale was given to 50 teenagers with age range of 12 to 19 years to discover the test vagueness and user appropriateness. Afterward, test was carried out on 284 participants two times with the break of 10 days. 40 items were resulted after this scrutiny. Items with the correlation of .4 and high in the first and second administration were kept whereas others were eliminated (Table 2). For determining the factor structure, 40 item scale was administered to 400 teenagers. SPSS 24 was used for carrying out exploratory factor analysis which gives rise to

six factor solution after varimax rotation including 26 items (Table 6). Confirmatory factor analysis was carried out by means of Amos Graphics 7 which confirms the structure proposed by exploratory factor analysis after deletion of two more items. Confirmatory factor analysis offer the good model fit with highly recommended values of GFI, AGFI, CFI, RMSEA and RMR and significant *P* value (Table 8). Cronbach alpha reliability co-efficient for the total scale and subscales is satisfactory (Table 11).

Exploratory factor analysis converted scale into six factors with deletion of dimension of "disregard, distortion and minimization of consequences" and fusion of displacement of responsibility and diffusion of responsibility factors. On the other hand, the factors of advantageous comparison, dehumanization, attribution of blame, moral justification and euphemistic labeling remain same.

Both the dimensions (displacement of responsibility and diffusion of responsibility) were merged by exploratory factor analysis as both are related with the tactics of denying the responsibility either by diffusing it or displacing the responsibility on someone else. In our culture adolescents are considered less responsible as parents or other elderly are responsible for the deeds of adolescents. Adolescents tend to take dictations from them and act as they are advised by their elderly. So, it come out to be the most prominent and significant mechanism of moral disengagement used by the adolescents of current culture. Besides the emergence of displacement and diffusion of responsibility sub dimensions, the dimension of "disregard, distortion and minimization of the consequences" was not extracted by exploratory factor analysis for the adolescents of current study. So, according to data most of the adolescents in the current population do not use this mechanism which is associated with the denial of the brutality of the situation while they rely more on other mechanism of moral disengagement. This structure was gone through confirmatory factor analysis by means of Amos Graphics 7 which approve the similar structure after removal of two further items.

All the subscales have high correlation with total scale and all the item has high correlation with subscale total (Table 9 & 10), which is an indication of internal consistency of MDSA (Anastasi & Urbina, 1997). Item total correlation between item and subscale total scores and between subscales and total scores are significant and moderately high overall. Cronbach alpha reliability co-efficient is high for total scale and subscales as well (Table 11).

In conclusion MDSA is an indigenously developed reliable and valid measure to be used for the Pakistani adolescents. The MDSA could be used for basic research when to measure the variable of moral disengagement among adolescents and to find out current level of moral disengagement among Pakistani adolescents when to plan a remedial measure to refrain the youngsters from such negative undesirable behavior. The study has one limitation that data has been collected from only one district and it should be expanded to generalize the findings. Scale is developed in native language Urdu, so it will be difficult to understand the content of the scale who did not comprehend Urdu language. Scale is developed for adolescents age range from12 to19 years.

REFERENCES

Anastasi, A. & Urbina, S. (1997). *Psychological testing* (7th ed.). Pearson Publishers.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1990). Selective activation and disengagement of moral control. *Journal of Social Issues, 46,* 27-46.

Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Review, 3*, 193-209.

Bandura, A. (2000). Social cognitive theory. In A. E. Kazdin, (Ed.), Encyclopedia of psychology (pp. 329-332) New York: Oxford University Press.

Bandura, A. (2002). Selective Moral Disengagement in the Exercise of Moral Agency. *Journal of Moral Education, 31*(2), 1-19.

Bandura, A., Barbaranelli, C., & Caprara, G. V., & Pastorelli, C. (1996). Mechanisms of moral disengagement in the exercise of moral agency. *Journal of Personality and Social Psychology, 71*, 364-374.

Boardley, I. D., & Kavussanu, M. (2007). Development and validation of the Moral Disengagement in Sport Scale. *Journal of Sport & Exercise Psychology 29*, 608-628.

Boardley, I. D., & Kavussanu, M. (2008). The moral disengagement in sport scale – short. *Journal of Sports Sciences, 26*(14), 1507–1517

Çapan, B. E., & Bakioğlu, F. (2016). Adaptation of Collective Moral Disengagement Scale into Turkish culture for adolescents. *Universal Journal of Educational Research 4*(6), 1452-1457.

Cartledge, S., Bowman-Grieve, L., & Palasinski, M. (2015). The mechanisms of moral disengagement in George W. Bush's "War on Terror" Rhetoric. *The Qualitative Report, 20*(11), 1905-1921. doi:10.1080/17405629.2013.851024

Cohen, D., & Nisbett, R. (1994). Self-protection and the culture of honor: Explaining southern violence. *Personality and Social Psychology Bulletin, 20*(5), 551-567. doi: http://dx.doi.org/10.1177/0146167294205012.

Diener, E. (1977). Deindividuation: Causes and consequences. *Social Behavior and Personality: An International Journal, 5*, 143-156.

Diener, E., Dineen, J., Endresen, K., Beaman, A. L., & Fraser, S. C. (1975). Effects of altered responsibility, cognitive set, and modeling on physical aggression and deindividuation. *Journal of Personality and Social Psychology, 31*(2), 328-337.

Field, A. (2000). *Discovering statistics using SPSS* (3rd ed.). SAGE publication.

Gambino, R. (1977). *Vendetta: A true story of the worst lynching in America, The mass murder of Italian-Americans in New Orleans In 1891. The vicious motives behind it, and the tragic repercussion that linger to this day*. New York: Doubleday.

Garay, F. R., Amor, P. J., & Carrasco, M. A. (2017). Dimensionality and psychometric properties of the Spanish version of the Mechanisms of Moral Disengagement Scale (MMDS-S). *Revista de Psicopatología y Psicología Clínica, 22* (1), 43-54

Gini, G., Pozzoli, T., & Bussey, K. (2014). Collective moral disengagement: Initial validation of a scale for adolescents. *European Journal of Developmental Psychology, 11*, 386-395.

Guttman, L. (1959). A structural theory of intergroup beliefs and action. *American Sociological Review, 24,* 318-328. doi: http://dx.doi.org/10.2307/2089380.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2013). *Multivariant data analysis: A global perspective* (7th ed.). Dorling Kindersley, India.

Jackson, L. E., & Sparr, J. L. (2005). Introducing a new scale for the measurement of moral disengagement in peace and conflict. *Research Conflict & Communication Online*, *4*(2). Retrieved from: http://www.cco.regener-online.de/2005_2/pdf_2005-2/es.pdf.

Kelman, H. C. (1973). Violence without moral restraint: Reflections on the dehumanization of victims and victimizers. *Journal of Social Issues, 29* (4), 25-61. doi: https://doi.org/10.1111/j.1540-4560.1973.tb00102.x.

Milgram, S. (1974). *Obedience to authority: An experimental view*. New York: Harper and Row.

Obermann, M. L. (2011). Moral disengagement in self-reported and peer-nominated school bullying. *Aggressive Behavior, 37*, 133-144.

O'Leary-Kelly, S. W., & Vokurka, R. J. *(1998).* The empirical assessment of construct validity. *Journal of Operations Management, 16*(4) 387-405.

Paciello, M., Fida, R., Fida, C., & Cerniglia, L. (2013). Moral dilemma in adolescence: The role of values, prosocial moral reasoning and moral disengagement in helping decision making. *European Journal of Developmental Psychology, 10*(2), 190-205.

Tziner, A. E. (1987). *The facet analytic approach to research and data processing*. New York: Peter Lang.