



Research Article

# Personal values and moral reasoning: An empirical study

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## ABSTRACT

This exploratory study examined the personal values (using the Rokeach values survey) and moral reasoning (according to the DIT-2 P-scores) of a sample of 51 students taking business courses at a Canadian University in Winter 2020, at the beginning of the COVID-19 epidemic. The mean P-Score of the sample was 32.16 with females having a mean P-score (37.4) significantly higher (at 5% level) than the males (mean of 28.62). Health was ranked as the most important terminal value, followed by Family Security and Self-Respect while Honest was considered as the highest-ranking instrumental value, followed by Responsible and Ambitious. Female respondents considered the value of Self-Respect to be of more priority than the male respondents. The results suggest that most of the respondents (66%) according to the Musser-Orke classification, place emphasis on social than on personal goals and thus on serving others rather than themselves. No significant correlation was, however, detected between the respondents' P-Scores and either their social terminal or moral instrumental value scores.

## 1. INTRODUCTION

The personal values and moral reasoning of students are likely to convey what they cherish in their lives and influence their thoughts and attitudes towards work and society, personal and business ethics, and hence the actions and decisions they make in their lives. Contemporary business schools aim to provide business students with an education that focuses not only on profit and return to shareholders but includes ethics, sustainability, equity and diversity. Today's business schools aspire to develop innovative and socially responsible business leaders who thrive in a changing world and can inspire others. Furthermore, accounting firms and other business entities emphasize the values of honesty and integrity and proclaim their support for equity, diversity and inclusion. Having a knowledge of the values and levels of moral reasoning can be useful to educators to determine whether courses such as ethics have any influence in developing socially responsible citizens.

This study examines the personal values using the Rokeach Values Survey (RVS) and the levels of moral reasoning obtained from using the DIT-2 questionnaire of undergraduate students interested in business, in Winter 2020, when the Covid-19 coronavirus became a pandemic. In addition, it examines the association between the respondents' post-



conventional levels of reasoning, as measured by their P-scores and their social terminal or moral instrumental scores obtained from the Rokeach Values Survey. The study also investigates the effect of gender on the personal values and moral reasoning of the participants.

## **2. LITERATURE REVIEW**

In attempting to explain and understand an individual's behaviour, researchers have studied the theory of personal values and that of moral reasoning of the individual.

### **2.1. PERSONAL VALUES**

The concept of values has been defined in many ways. According to Rokeach (1973), a value is considered to be "an enduring belief that a specific mode of conduct or end state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence" (p.5). For Posner et al. (1987), values represent things which are most important to us. Smith and Schwartz (1997), regard values as guiding principles in an individual's life. Personal values are at the core of an individual's personality and influence the individual's behavior (Rokeach, 1973; Feather, 1988; Giacomino & Eaton, 2003; Hitlin, 2003). Jones (1991) argued that an individual's behavior is shaped by his/her personal values (Jones, 1991) and Williams (1968), proposed that value systems (types) or sets of values are useful for explaining behavior. In particular, Finnegan (1994) found that for subjects who ranked the value Honest high, ethically questionable behaviors in the workplace were perceived to be more immoral than those who did not place emphasis on value of "honesty." In the same vein, Pulfrey and Butera (2016) concluded that participants who adhered to self-transcendence values were less likely to accept cheating than those who did not consider these values to be important.

The Rokeach Values Survey (RVS) was developed by Rokeach (1973) to measure personal values and value systems and consists of two lists of values, one set of 18 desirable end states in life (terminal values) and one set of 18 desirable behaviors or specific mode of conduct (instrumental values). For a detailed list of the two sets of terminal and instrumental values comprising the RVS, see the Appendix. Participants are asked to rank these values from 1 (most important) to 18 (least important) based on how significant these values are to their lives. The terminal (end-states) values can be disaggregated into two distinct sets of values, namely: social or personal. Social terminal values are society-centred with a focus on others and include the following values: A World at Peace, A World of Beauty, Equality, Family Security, Freedom, Mature Love, National Security, Social Recognition, True Friendship. The other group of terminal values, denoted as personal, are self-centred values and include: A Comfortable Life, An Exciting Life, A Sense of Accomplishment, Health, Inner Harmony, Pleasure, Salvation, Self-Respect, and Wisdom. Similarly, the instrumental (behavioural) values can be disaggregated into two distinct groups known as moral (moral means to achieve goals) and competence (focus on competence). Moral instrumental values include the values termed Broadminded, Loyal, Forgiving, Helpful, Honest, Loving, Obedient, Polite, Responsible. According to Rokeach (1973), when moral instrumental values are violated, the individual feels "pangs of

conscience or feelings of guilt about wrongdoing” (p.8). Competence instrumental values include the values denoted as Ambitious, Capable, Clean, Courageous, Imaginative, Independent, Intellectual, Logical, Self-controlled. When competence instrumental values are violated, the individual feels “shame about personal inadequacy rather than feelings of guilt about wrongdoing.” (Rokeach, 1973, p.8).

Using the respondent's scores on the sets of terminal (social and personal) and instrumental (moral and competence) coordinates, Musser and Orke (1992) developed a methodology to assign the respondents to one of four value systems, which they described as: 1. Virtuous Advocates (high social terminal and high moral instrumental value scores) 2. Effective Crusaders (high social terminal and high competence instrumental value scores) 3. Independent Maximizers (high personal terminal and high competence instrumental value scores and 4. Honorable Egoist (high personal terminal and high personal instrumental value scores). According to Musser and Orke, Virtuous Advocates exhibit a focus that is more other-centred and other-sensitive focus and are more concerned about the organization goals than their own personal goals. Effective crusaders also place the organization's goals ahead of their own, but their approach is less sensitive, and they ignore the needs and feelings of their associates. Independent maximizers will be more concerned about their own goals than those of the team or organization and will ignore the needs and feelings of their associates to achieve their personal goals. Lastly, Honorable Egoist seek to reach their own goals first but will try to be sensitive to the needs and feelings of their associates in the process. Hence, classification in the matrix value system affects the behavior of the individual.

## 2.2. MORAL REASONING

Kohlberg (1994), developed a cognitive moral development (CMD) model, consisting of six stages of ethical development with each of the stages being viewed as qualitatively higher than the previous stages in terms of ethical reasoning. In the lowest stages 1 and 2, there is an initial focus upon obedience and punishment as the basis of one's ethical reasoning while in stages 3 and 4 the focus shifts to obeying society's laws, rules and regulations. In the final stages 5 and 6, called principled morality, the individual demonstrates a mature reflection based on personally held ethical principles such as utilitarianism and deontology. In Kohlberg's CMD model, As mentioned by Armstrong (1987), Kohlberg's stages focus on the cognitive processes utilized by individuals to determine right actions from wrong actions but not on an individual's behavior. For example, an accountant may decide not to manipulate income for a variety of reasons: fear of punishment (stage 1), because it is against the law (stage 3) or because of the inner conviction of the value of doing the right thing and not mislead the external stakeholders (stage 6). While the act is the same, the decision process will differ at different levels of moral reasoning.

Rest (1979, 1986) originally developed a paper and pencil instrument with six dilemmas known as the Defining Issues Test (DIT). The DIT attempts to measure the level of moral reasoning by presenting the subject with a series of dilemmas, various issues and specific choices to each dilemma. Each issue represents a justification corresponding to different levels of reasoning and respondents rate and rank the issue in terms of their importance in

solving the dilemmas. The responses are scored, and several indices are developed from DIT, of which the most commonly used is the “P” (Principled) score, which indicates what percentage of an individual’s responses corresponds to the highest (i.e., post-conventional) stage and thus is a measure of the participant’s level of post-conventional moral reasoning.

Rest et al. (1999), proposed development indices or moral schema scores for three progressive levels of moral development corresponding to Kohlberg’s stages 1 to 6, namely: 1) Personal Interest Schema Score --Stages 2 and 3; 2) Norms Schema Score—Stage 4, and 3) Post-conventional Schema Score (P-score)—stages 5 and 6. The DIT-2, a revised version of the DIT, consists of 5 ethical dilemmas and reports moral schema scores corresponding to Kohlberg’s stages: The P-score is interpreted as the extent to which a person prefers postconventional moral thinking to the other two lower levels.

### **2.3. PERSONAL VALUES AND MORAL REASONING**

Neither of the above theory alone has succeeded in providing a comprehensive basis for understanding and explaining the decisions and behavior of an individual. While there are numerous studies that have investigated personal values and moral reasoning separately, a few studies have explored them together and tried to shed some light on any relationships that may exist between them.

Weber (1993), argued that both moral reasoning and personal value are significant influences of behavior and studying both together may shed more light on the way individuals make their decisions. He hypothesized that there was an association between the managers’ personal value orientations as measured by Rokeach values survey and their stages of moral reasoning. Similar to the Musser and Orke (1992), value system matrix, Weber identified four value orientations, namely: 1. Personal - Competence 2. Social-Competence 3. Moral- Personal and 4 Moral-Social. He concluded that managers who placed an emphasis on social and moral values (as measured by Rokeach Values Survey) would utilize ethical principles in their decision-making.

Abdolmohammadi and Baker (2006), showed an inverse relationship between conformity values (using Rokeach Values Survey) and level of moral reasoning. Lan et al. (2008), using the Schwartz Values survey to measure values, found significant correlations between 8 value types (clusters of related values) and levels of moral reasoning, as measured by the DIT-2, implying the existence of a systematic relationship between personal values and moral reasoning.

### **2.4. EFFECT OF GENDER**

Differences in values due to gender may arise because culturally, women and men are expected to have different social roles. As argued by Nguyen et al. (2008), males are expected to be aggressive in the pursuit of success whereas females are typically brought up to develop more socially oriented attributes. According to Schwartz (2006), women are more inclined towards communal values such as benevolence and universalism whereas men would favor self-enhancement values such as power and achievement whereas

With respect to moral reasoning, Gilligan (1977) argued that Kohlberg's CMD with its focus on justice and individualism favored males and was biased against the females, whose moral reasoning was based on social relationships and focused on avoiding harm to other people. Nevertheless, there is more empirical evidence that women exhibit a slightly higher level of moral reasoning than men, as measured by the DIT P-scores (Venezia, 2005; Buono et al., 2012). Examining the effect of gender on moral reasoning of accounting students, Venezia (2005) found that female students had significantly higher moral cognitive level with mean P-score of 31.74 compared to the male students who reported a mean P-score of 26.41. Lan et al. (2008), reported that female undergraduate business students had a mean P-Score of 35.07 which was significantly higher than the mean P-Score of 31.6 for male undergraduate students. On the other hand, other studies in moral reasoning did not detect significant differences in levels of moral reasoning attributed to gender (Kidwell et al., 1987; Abdolmohammadi & Arial, 2009)

## 2.5. RESEARCH QUESTIONS

To investigate the objectives of this study, the following research questions (RQ) are formulated:

RQ1: What is the ranking of personal values exhibited by this contemporary group of students taking undergraduate business courses?

RQ2: What is the mean level of moral development exhibited by the respondents?

RQ3a: Are there differences in the ranking of personal values associated with the gender of the participants?

RQ3b: Are there differences in the P-scores associated with the gender of the participants?

RQ3c: Are there differences in the social terminal or moral instrumental values caused by the gender of the participants?

RQ4: Are P-scores associated with the social terminal, moral instrumental values and gender of the respondents?

RQ5: Are P-scores associated with the classification of the respondents in the Musser Orke value systems matrix typology?

## 3. METHODOLOGY

Students taking undergraduate business courses in a mid-sized university in Ontario during Winter 2020 were invited to participate in the study. The participants were given a package containing Rokeach Values questionnaire and the DIT-2 questionnaire for completion outside of class time. Participation is voluntary and anonymous. Respondents are paid \$5 on return of completed instruments.

Fifty-nine students participated in Winter 2020. Collection of data was interrupted when classes went on-line in middle of March. The ranking of the 18 instrumental and terminal values were recorded and their social terminal value (SOCTERMI) and moral instrumental value (MORALINSTR) scores were computed by the procedure developed by Musser and

Orke (1992). For SOCTERMI score, we total the rankings of social values in the terminal values group and subtract it from 171 (the total rankings for all values in the set). For MORINSTR scores, we total the rankings of moral values in the instrumental values set and subtract the total from 171. Thus, the highest rated value is assigned a score of 18 and the lowest value a score of 1 and a participant who ranked highly the moral values will have a high moral instrumental value. The completed DIT-2 questionnaires were sent to the Centre of Ethical Study at the University of Alabama for initial analysis (computation of the schema scores and other statistical analysis).

There were 51 valid responses, with 26 participants identifying as male and 23 as female. The average age of the participants was 20.57 years. Nineteen of the participants declared themselves accounting majors, 26 were other business majors and six belonged to non-business.

#### 4. RESULTS AND DISCUSSION

Tables 1 and 2 below report the top and bottom five terminal and instrumental personal values of the respondents and the mean rating of the values by gender. Health was ranked as their topmost priority by both male and female participants—this could be because of the heightened health awareness due to Covid-19, which was about to become the pandemic of the century and sweep across the world with devastating effects. A greater threat to the well-being of the family was felt and Family Security was ranked overall as the second top terminal value of the respondents. The respondents ranked Honest, Responsible and Ambitious as their top three instrumental values.

This group of respondents did not attach much importance to social recognition and salvation and did not care much about being obedient and imaginative. Females rank noticeably higher the terminal value of Self-Respect ( $F=5.00$ ,  $M=8.45$ ) than males. In addition, females rank higher the instrumental value Forgiving ( $F= 10.41$ ,  $M = 12.77$ ) whereas males attach more importance to the instrumental value of Logical ( $M= 8.09$ ,  $F= 10.73$ )

**Table 1.** Mean Ratings of Highest-Ranked Five Terminal and Instrumental Personal Values of Respondents

Rank	Terminal ("Ends") Values	Mean	Instrumental ("Means") Values	Mean
1	Health ( <i>personal</i> ) [M = 3.590; F = 4.230]	3.960	Honest ( <i>moral</i> ) [M = 4.410; F=5.950]	5.280
2	Family Security ( <i>social</i> ) [M = 6.230; F = 5.910]	6.200	Responsible ( <i>moral</i> ) [M = 6.820; F = 6.270]	6.700
3	Self Respect ( <i>personal</i> ) [M = 8.450; F = 5.00]	6.700	Ambitious ( <i>competence</i> ) [M = 7.220; F= 7.00]	7.390
4	A Comfortable Life ( <i>personal</i> ) [M = 6.270; F = 7.910]	7.300	Independent ( <i>competence</i> ) [M = 8.230; F = 8.680]	8.300
5	Freedom ( <i>social</i> ) [M = 6.950; F = 7.950]	7.610	Loyal ( <i>moral</i> ) [M = 8.730; F = 9.050]	8.590

M= Males; F = Females

**Table 2.** Mean Ratings of Lowest Ranked Five Terminal and Instrumental Personal Values

Rank	Terminal ("Ends") Values	Mean	Instrumental ("Means") Values	Mean
14	An Exciting Life ( <i>personal</i> ) [M = 10.230; F = 11.500]	10.870	Helpful ( <i>moral</i> ) [M = 11.050; F = 9.450]	10.540
15	A Sense of Accomplishment ( <i>personal</i> ) [M = 11.320; F = 10.680]	11.110	Clean ( <i>competence</i> ) [M = 12.410; F = 10.590]	11.500
16	Social Recognition ( <i>social</i> ) [M = 12.180; F = 12.590]	12.300	Forgiving ( <i>moral</i> ) [M = 12.770; F = 10.410]	11.570
17	A World of Beauty ( <i>social</i> ) [M = 13.860; F = 13.860]	13.590	Obedient ( <i>moral</i> ) [M = 12.360; F = 13.910]	13.260
18	Salvation ( <i>personal</i> ) [M = 13.860; F = 13.410]	13.700	Imaginative ( <i>competence</i> ) [M = 14.590; F = 13.730]	13.890

M= Males; F = Females

Table 3 shows the moral schema means and standard deviations for the whole group of respondents. The respondents have a mean P-score (post conventional level) of 32.16. The mean score for the Maintaining Norms and the Personal Interest schema were 29.70 and 32.16 respectively.

**Table 3.** DIT2 means and standard deviations of schema scores of respondents

Moral Schema	Mean	Std. Dev.
Personal Interest(stage2/3)	30.870	12.410
Maintaining Norms (stage 4)	29.700	11.980
Post Conventional (P- score)	32.160	13.780

In Table 4 below, the P-scores, social terminal value (SOCTERMI) and moral instrumental value (MORALINSTR) scores were disaggregated according to gender of the participants. Females have a P-Score of 37.14, which was significantly higher ( $p = .028$ ) than the mean P-score of the males. There is no significant association between their social terminal scores or their moral instrumental scores and their P-scores.

**Table 4.** T-Tests for equality of means of DIT2 P scores and social terminal (SOCTERMI) and moral instrumental (MORINSTR) values for male and female respondents

Variable	Gender	N	Mean	Std. Dev.	t test	Significance (2-tailed)
P-SCORE	Male	26	28.620	12.880	-2.269	.028
	Female	23	37.140	13.400		
SOCTERMI SCORE	Male	22	89.500	11.070	.415	.680
	Female	22	88.100	11.440		
MORALINSTR SCORE	Male	22	83.270	16.800	.302	.764
	Female	22	81.860	14.040		

Table 5 shows the correlations among the various variables investigated. Only the correlation between gender and P-scores of the respondents was significant at the 5% level. There is no significant association among the social terminal value scores, the moral instrumental value scores, the P-scores and the major of the respondents.

**Table 5.** Pearson Correlations with levels of significance indicated between parentheses

Variable	Pscore	Soctermi Score	Moralinstr Score	Gender
PSCORE	1	.062 (.680)	.104 (.492)	.314* (.028)
SOCTERMI SCORE		1	.217 (.147)	.064 (.680)
MORINSTR SCORE			1	-.047 (.764)
GENDER				1

\* Significant at the 0.05 level (2-tailed)

Table 6 shows that, according to the Musser Orke value systems matrix Musser and Orke (1992), 33% of the respondents were “Effective Crusaders”, 33% were categorized as “Virtuous Advocates”, while 26% were “Independent Maximizers” and 9% fell into the “Honorable Egoist” group. The mean P-score for those classified as Virtuous Advocate (whig social and high moral scores) was the highest at 38.67 and that of the Honorable Egoists (high personal and high moral) was the lowest at 24.08.

**Table 6.** Musser Orke Value System Matrix classifications and P-scores

High Social, High Competence	High Social, High Moral
Effective Crusaders (n = 15; M =7; F = 6): 33% Mean P- Score = 30.670	Virtuous Advocates (n = 15; M = 7; F = 8): 33% Mean P-Score= 38.670
High Personal, High Competence	High Personal, High Moral
Independent Maximizers (n =12; M = 6; F =6): 25% Mean P-Score = 34.000	Honorable Egoists (n = 4; M = 3; F = 1): 9% Mean P-Score = 24.080

#### 4.1. RESEARCH QUESTION # 1 (RANKING OF PERSONAL VALUES) AND # 2 (LEVEL OF MORAL DEVELOPMENT)

The respondents show great importance to the personal value of Health (highest ranked terminal value) and being honest (highest-ranked instrumental value) least importance to salvation and being imaginative. In Giacomino et al. (2011), the highest-ranked 3 terminal values of business students were: Family Security, True Friendship and Pleasure and the highest-ranked 3 Instrumental were: Honest, Ambitious and Responsible while the lowest-ranked 3 terminal values of business students were: an Exciting Life; A World at Peace & A World of Beauty (last) and the lowest-ranked 3 instrumental values were: Obedient, Imaginative & Clean (last).

#### 4.2. RESEARCH QUESTION # 2 (LEVEL OF MORAL DEVELOPMENT)

On average, the responses of the whole group of respondents correspond almost evenly to each of the three levels of moral reasoning. The mean P-score of the sample was 32.16 similar to the mean P-score (32.88) reported in Lan et al. (2008).

#### **4.3. RESEARCH QUESTION # 3A AND #3B (GENDER EFFECT IN PERSONAL VALUES AND MORAL REASONING)**

Both genders essentially consider the same values to be important to them. The notable differences were the value of Self Respect, which was ranked seventh with a weighting of 8.45 by males and ranked second in importance by females, with a rating of 5. This may be attributed to the fact that females in the current society perceive this value to be harder to achieve than their male counterparts and are still trying to attain self-respect, consistent with the finding of Lan (2019). Being Logical is considered more important by the male than the female respondents and Freedom was ranked 10th by males with a weight of 10.23, while females ranked freedom 15th, with a weight of 11.5.

The mean P-score of females (37.14) was significantly higher than mean P-Score of males (32.16) implying that female students had a higher or more Principled level of moral reasoning than the males. This result is consistent with Lan et al. (2008).

#### **4.4. RESEARCH QUESTION # 3C (GENDER DIFFERENCES IN THE SOCIAL TERMINAL OR MORAL INSTRUMENTAL VALUES)**

There were no significant differences in the social terminal or moral instrumental values scores of the respondents attributed to their gender. Thus, it could be argued that university life exposes these young students to similarities in expectations and behaviour.

#### **4.5. RESEARCH QUESTION 4 (CORRELATIONS AMONG VARIABLES)**

No significant relationship between respondents' P-scores and either their social terminal or moral instrumental values scores. This indicates that either high social terminal values or high instrumental values have no significant effect on the individual's post-conventional level of moral reasoning.

#### **4.6. RESEARCH QUESTION 5 (RELATIONSHIP BETWEEN VALUES MATRIX CLASSIFICATION AND P-SCORES)**

The total percentage of respondents with high social scores (Effective Crusaders and Virtuous advocates) is 69.34%, which is higher than the percentage of 51% in the Giacomino et al. (2011) study. Hence, current students seem to place more emphasis on social values than those about 15 years ago. Virtuous advocates had highest mean P-scores, followed by Independent Maximizers, Effective Crusaders and Honorable Egoists. This suggests that although P-Scores are not associated with either the high social terminal or high moral instrumental values scores, individuals with both high social terminal and high instrumental values tend to have higher P-scores.

### **5. CONCLUDING REMARKS**

This exploratory study has provided some useful insights in the personal values and levels of moral reasoning of students interested in business programs at a time of high anxiety and uncertainty caused by the start of the covid-19 pandemic. Great emphasis was placed

on health and family security. The respondents also value honesty, self-respect, responsibility and are ambitious and consider moral and social values to be important. The respondents' P-scores suggest that the respondents utilized each of the three levels of moral reasoning almost evenly and that female respondents showed a significantly higher level of post-conventional reasoning when compared to the male respondents. No significant correlation was detected between the respondents' P-Scores and either their social terminal or moral instrumental value scores.

The small sample size of the groups examined is a limitation of the study. (Unfortunately, collection of additional data was interrupted when classes pivoted from face-to-face to on-line because of the COVID-19 pandemic). In addition, the respondents were from one university in Ontario, which limits the generalizability of the results. Moreover, there is a social desirability effect when the personal values and moral reasoning are measured with use of self reported questionnaire, despite the anonymity of responses. Despite the limitations, the study has provided some significant results and trends which may have implications for business schools and other educators. Educators may be able to raise the level of moral reasoning of students by stressing the importance of ethics to students from the beginning of their studies and by discussing ethical decision-making models and principles and how one reasons through ethical dilemmas. Educators can also foster awareness of personal and professional costs of unethical decisions and encourage students to reflect on the extent to which their actions are congruent with their values.

There are several avenues for further research. One can use large samples and data from several universities in different geographical regions to probe further the relationships between personal values and levels of moral reasoning. In addition, although values and moral reasoning play a critical part in determining decision and behavior, there are other factors that affect the total cognitive process and behavior. In his four-component model, Rest (1994) identified three other factors besides moral reasoning affecting ethical behavior, namely: moral sensitivity (awareness); moral motivation (importance given to moral values) and moral character (courage). Further research could investigate how these components of Rest Model and other factors interact with values and moral reasoning in affecting ethical behavior. For example, a promising avenue of research is to examine how the moral courage and marginalization of the participants interact with their personal values and moral reasoning to affect ethical behavior.

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As a single author all phases of this research were done by me.

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### **Institutional Review Board Statement:**

The study was reviewed and approved by the Research Ethics Board of the University of Windsor.

## Informed Consent Statement:

Informed consent was obtained from all subjects in the study

## Data Availability Statement:

Data is available upon request.

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## Conflicts of Interest:

There are no conflicts of interest.

## References:

- Abdolmohammadi, M. J., & Arial, D. L. (2009). A test of the selection-socialization theory in moral reasoning of CPAs in industry practice. *Behavioral Research in Accounting*, 21(2), 1-12. <https://doi.org/10.2308/bria.2009.21.2.1>
- Abdolmohammadi, M. J., & Baker, C. R. (2006). Accountant's value preferences and moral reasoning. *Journal of Business Ethics*, 69(1), 11-25. <https://doi.org/10.1007/s10551-006-9064-y>
- Armstrong, M. B. (1987). Moral development and accounting education. *Journal of Accounting Education*, 5(1), 27-43. [https://doi.org/10.1016/0748-5751\(87\)90036-4](https://doi.org/10.1016/0748-5751(87)90036-4)
- Buono, A. F., Fletcher-Brown, D., Frederick, R., Hall, G. J. & Sultan, J. (2012). Acting ethically: moral reasoning and business school student behavior., *SAM Advanced Management Journal*, 77(3), 18-26.
- Feather, N. T. (1988). From values to actions: recent application of the Expectancy-Value model. *Australian Journal of Psychology*, 40(2), 105-124. <https://doi.org/10.1080/00049538808259076>
- Finnegan, J. (1994). The impact of personal values on judgments of ethical behavior in the workplace. *Journal of Business Ethics*, 13(9), 747-755. <https://doi.org/10.1007/BF00881335>
- Gilligan, C. (1977). In different voice; women's conceptions of self and morality. *Harvard Education Review*, 47(4), 481-517. <https://doi.org/10.17763/haer.47.4.g6167429416hg510>
- Giacomino, D. E., Brown, J., & Akers, M. D. (2011). Generational differences of personal values of business students. *American Journal of Business Education*, 4(9), 19-30.
- Giacomino, D. E., & Eaton, T. V. (2003). Personal values of accounting alumni: an empirical examination of differences by gender and age. *Journal of Managerial Issues*, 15(3), 369-380. <http://www.jstor.org/stable/40604438>
- Hitlin, S. (2003). Values as the core of Personal Identity: drawing Links between two theories of the self. *Social Psychological Quarterly*, 66(2), 118-37. <https://doi.org/10.2307/1519843>
- Jones, T. M. (1991). Ethical Decision Making by Individuals in Organizations: An Issue-Contingent Model. *The Academy of Management Review*, 16(2), 366-395. <https://doi.org/10.5465/amr.1991.4278958>
- Kidwell, J. M., Steven, R. E. & Bethke, A. L. (1987). Differences in ethical perceptions between male and female managers: myth or reality? *Journal of Business Ethics*, 6, 489-493. <https://doi.org/10.1007/BF00383291>

- Kohlberg, L. (1994). Stage and sequence: The cognitive-developmental approach to socialization. In B. Puka (Ed.), *Defining perspectives in moral development* (pp. 1-134). Garland Publishing. (Reprinted from D. Goslin (Ed.), "Handbook of Socialization Theory and Research," Chicago, IL: Rand McNally, 1969, pp. 347-480)
- Lan, G. (2019). Personal Values and Value Priorities of Undergraduate Business Students. *Business & Professional Ethics Journal*, 38(2), 147-175. <http://www.jstor.org/stable/45149333>
- Lan, G., Gowing, M., McMahon, S., Rieger, F. & King, N. (2008). A study of the relationship between personal values and moral reasoning of undergraduate business students. *Journal of Business Ethics*, 78 (1-2), 121-139. <https://doi.org/10.1007/s10551-006-9322-z>
- Musser, S. J., & Orke, E. A. (1992). Ethical Values System: A Typology. *The Journal of Applied Behavioral Science*, 28(3), 328-362. <https://doi.org/10.1177/0021886392283002>
- Nguyen, N. T., Basuray, M. T., Smith, W. P., Kopka, D. & McCulloh, D. (2008). Moral issues and gender differences in ethical judgment using Reidenbach and Robin's (1990) Multidimensional Ethics Scale: implications in teaching business ethics. *Journal of Business Ethics*, 77(4), 417-430. <https://doi.org/10.1007/s10551-007-9357-9>
- Posner, B., Z. Randolph, W. A., & Schmidt, W. H. (1987) Managerial values across functions: A source of organization problems. *Group and Organization Studies*, 12(4), 373-385. <https://doi.org/10.1177/1059601187012004>
- Pulfrey, C., & Butera, F. (2016). When and why people don't accept cheating: self-transcendence values, social responsibility, mastery goals and attitudes towards cheating. *Motivation and Emotion*, 40(3), 438-454. <https://doi.org/10.1007/s11031-015-9530-x>
- Rest, J. R. (1979). *Development in Judging Moral Issues*. (University of Minnesota, Minneapolis, MN).
- Rest, J. R. (1986). *Moral development: Advances in research and theory* (New York: Praeger).
- Rest, J. R. (1994). Background: Theory and research. In *Moral Development in the Professions*, ed. J. Rest and D. Narvaez, 1-26. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Rest, J. R., Narvaez, M., Bebeau, M.J. & Thoma, S.J. (1999). *Postconventional moral thinking: A Neo-Kohlbergian approach* (Lawrence Erlbaum Associates, Mahwah, J). <https://doi.org/10.4324/9781410603913>
- Rokeach, M. (1973). *The Nature of Human Values*. San Francisco: Jossey-Bass.
- Schwartz, S. H. (2006). Basic Human Values: Theory Measurement, and Application. *Revue Française de Sociologie*, 47, 249-288.
- Smith, P., & Schwartz, S.H. (1997). Values. In J.W. Berry, M.H. Segall and C. Kagitcibasi, (Eds.) *Handbook of Cross-Cultural Psychology* (2<sup>nd</sup> ed., 3: 77-118). Boston, MA: Allyn and Bacon.
- Venezia, C. C. (2005). The ethical reasoning abilities of accounting students. *Journal of American Academy of Business*, 6(1), 200-207.
- Weber, J. (1993). Exploring the relationship between personal values and moral reasoning. *Human Relations*, 46(4), 435-463. <https://doi.org/10.1177/00187267930460040>
- Williams, R. M. (1968). The concept of values in D. L. Sills (eds) *International Encyclopedia of Social Sciences*. (MacMillan, New York, NY).

## APPENDIX

ROKEACH Values Survey (Rokeach, 1973)

### A. PLEASE RANK THE FOLLOWING TERMINAL VALUES (DESIRABLE END-GOALS IN LIFE) IN ORDER FROM 1 (MOST IMPORTANT) TO 18 (LEAST IMPORTANT)

Terminal Values	Rank
A Comfortable Life (Prosperous Life)	
Equality (Brotherhood & Equal Opportunity)	
An Exciting Life (Stimulating, Active Life)	
Family Security (Taking care of loved ones)	
Freedom (Independence and free choice)	
Health (Physical and mental well-being)	
Inner Harmony (Freedom from inner conflict)	
Mature Love (Sexual and spiritual intimacy)	
National Security (Protection from attack)	
Pleasure (An enjoyable, leisurely life)	
Salvation (Saved; eternal life)	
Self-Respect	
A Sense of Accomplishment (Lasting contribution)	
Social Recognition (Respect and admiration)	
True Friendship (Close companionship)	
Wisdom (A mature understanding of life)	
A World at Peace (World free of war and conflict)	
A World of Beauty (Beauty of nature and the arts)	

### B. PLEASE RANK THE FOLLOWING INSTRUMENTAL VALUES (DESIRABLE BEHAVIORS) IN ORDER FROM 1 (MOST IMPORTANT) TO 18 (LEAST IMPORTANT)

Instrumental Values	Rank
Ambitious (Hardworking; aspiring)	
Broad-minded (Open-minded)	
Capable (Competent; effective)	
Clean (Neat and tidy)	
Courageous (Standing up for your beliefs)	
Forgiving (Willing to pardon others)	
Helpful (Working for the welfare of others)	
Honest (Sincere and truthful)	
Imaginative (Daring and creative)	
Independent (Self-reliant; self-sufficient)	
Intellectual (Intelligent and reflective)	
Logical (Consistent and rational)	
Loyal (Faithful to friends or the group)	
Obedient (Dutiful; respectful)	
Polite (Courteous and Well-mannered)	
Responsible (Dependable and reliable)	
Self-controlled (Restrained; self-disciplined)	