

A Reliability and Validity Study of the Defining Issues Test: The Relationship of Age, Education, Gender and Parental Education with Moral Development

*Sevim CESUR**, *Mustafa Sami TOPÇU***

Abstract

The aim of the study is twofold: First and main aim was to develop a valid and reliable Turkish version of the DIT which is one of the most important instruments in the psychology and education research; second is to explore the relationships between moral development and age, gender, education, and parental education. The study group consists of 584 volunteer participants from three universities. As an instrument of the present study, developed and validated Turkish version of the DIT which is "Değerleri Belirleme Testi (DBT)" was used. Three schemas, personal interests, maintaining norms, and post conventional, were obtained from the instrument. For three schemas obtained from the DIT, the values of Cronbach's alpha and test-retest correlation coefficients change in the range of .53 to .60. Face and content validity of the DIT were also provided. The relationships between moral development and other selected variables (age, education, gender, and parental education) were presented in the findings section.

Key Words

Moral Development, Reliability and Validity of the DIT, Age, Gender, Education and Parental Education.

* Assist. Prof. Sevim CESUR, Istanbul University, Faculty of Arts, Department of Psychology, Laleli 34459 Istanbul/Turkey.

** *Correspondence:* Assist. Prof. Mustafa Sami TOPÇU, Yüzüncü Yıl University, Faculty of Education, Department of Elementary Science Education, Campus 65080, Van/Turkey.
E-mail: msamitopcu@gmail.com

The most prevalent moral development theory in psychology and educational psychology has been Lawrence Kohlberg's cognitive and developmental moral theory. Several instruments have been developed by the researchers based on the Kohlberg's cognitive and developmental moral theory. One of the most prominent instruments is the Defining Issues Test (DIT). As used throughout the most of the countries, in Turkey, it is necessary to develop and validate a Turkish version of the DIT. Therefore, the main purpose of the present study was to develop a valid and reliable Turkish version of the DIT which is one of the most important instruments in the psychology and education research.

Kohlberg's Moral Development and Kohlberg's Stages of Moral Development

Kohlberg modified and extended Piaget's theory, proposing that moral development is a universal cognitive-continual process that develops in stages. Each stage includes a justice approach which is coherent and separate (Kohlberg, 1969, 1973; Kohlberg & Kramer, 1969). Kohlberg's theory of moral development proposed six stages within three different levels.

Preconventional Morality (First and Second Stages): Social expectations are outside ego. Keeping the rules is important because it is a means to avoid punishment.

Conventional Morality (Third and Fourth Stages): At this level, agreements, rules, obligations, and expectations occur as a part of ego.

Postconventional Morality (Fifth and Sixth Stages): At this level, an individual has the principles of independence, equality, and cooperation.

As an alternative to Kohlberg's theory, recently Neo-Kohlbergian researchers (i.e., Minnesota Research Group) proposed a new moral reasoning approach named Schema Theory (Rest, Narvaez, Bebeau, & Thoma, 1999; Walker, 2002). This theory consists of three levels. First level refers to collection of Kohlberg's second and third stages; second level equals to fourth stage; third level refers to collection of fifth and sixth stages.

The Effect of Age, Education, and Gender on Moral Development

In the literature related to moral reasoning, it was claimed that there are

several important variables influencing moral reasoning. Moon (1986) stated that age and education are important needs and prerequisites for students' moral development. Rest, Davison and Robbins (1978) reported that age affects people's judgment about the moral issues. As a result, it can be claimed that there is a consensus among the researchers about the influence of age and education on peoples' moral development (Gielen, 1996; Martin, Shafto, & Vandeinse, 1977; Moon, 1986; Rest, 1975; Rest et al., 1999; Rest, Narvaez, Thoma ve Bebeau, 2000; White, 1975).

Rest (1986) did not find a significant relationship between students' moral development and their departments in the university, and Bebeau (2002) reported that there is not any significant relationship between students' moral development and their schools. Moon (1986) stated that the schooling where students take their education affects students' moral development in light of his meta-analysis study. Cesur (1997) reported that psychology students had higher morality scores than engineering students, and Bernardi, Metzger, Bruno, Hoogkomp, Reyes, and Barnaby (2004) stated that psychology students had higher morality scores than business students.

Another important variable studied by moral psychology researchers influencing moral reasoning is gender. There are different findings about the nature of the relationship between gender and moral reasoning. While Walker, de Vries, and Trevethan (1987), Walker (1989), and Stephens (2009) did not find any significant differences about students' moral reasoning in terms of gender, Haan, Langer, and Kohlberg (1976), Holstein (1976), and Weinreich-Haste (1977) found significant differences favoring male students. On the other hand, several researchers reported that female students have higher moral reasoning stages than male students (Bebeau, 2002; Cesur, 1997; Gibbs, Basinger, Grime, & Snarey, 2007; Krebs & Gillmore, 1982; Park & Johnson, 1984; Tolunay, 2001). Gielen (1996), Moon (1986), and Thoma (1986) conducted meta-analysis studies including the nature of the relationship between gender and moral development, and reported that there is not any significant relationship between gender and moral development. They also stated that if there was a difference in terms of gender, this difference favored females.

In the moral development research, there are many research results reporting the significant relationship between parental attitudes and

students' moral development (e.g., Walker & Hennig, 1999; Walker & Taylor, 1991; White, 2000; White & Matawie, 2004). Reimer (1993) reported that a democratic atmosphere in the family provides a healthy moral development for the children. According to Arendell's (2000) literature review, the well-educated mothers highly exhibited more democratic attitudes than the less-educated mothers.

Assessing Moral Development

The Moral Judgment Interview (MJI) is an important and worldwide method to measure moral reasoning, and the MJI has been used by most of the researchers in moral education research. The MJT is based upon people's arguments in response to moral dilemmas. Each dilemma includes contradictory opinions, and an individual should select one of these opinions. These dilemmas include six values and three cases: Life and law; Punishment and Morality-Conscience; Agreement and Authority (Nisan & Kohlberg, 1982). However, several researchers reported several critiques about this method (Froming & McColgan, 1979; Rest, Cooper, Coder, Masanz, & Anderson, 1974; Schaeffli, Rest, & Thoma, 1985; Shweder, Mahapatra, & Miller, 1987). For example, Froming and McColgan (1979) stated that assessing the MJT is complicated and subjective. Different and new methods were investigated to assess moral reasoning (Rest et al., 1974). These methods are Gibbs et al.'s Social Reflection Measure (SRM) (2007), Lind's *Moralisches Urteil* (MUT) (2009) and Ma's Moral Development Test (1989). The correlation values of the instruments of Kohlberg and Gibbs were found in the range from .50 to .85 (Gielen & Lei, 1994). The other test named the Defining Issues Test (DIT) was developed by Rest (1975) to measure moral reasoning, and this test is a multiple-choice test. This instrument is based upon Kohlberg's Moral Development Theory (Moon, 1986; Schaeffli et al., 1985). The DIT contains six stories, and each story included twenty statements. Some same stories were used in both the instruments of MJT and DIT (Froming & McColgan, 1979; Rest et al., 1978). The DIT has more advantages than the MJT in terms of verbal understanding and consistency (Nichols & Day, 1982; Martin et al., 1977). Thus, the DIT was used by researchers in different disciplines such as business (Herrington & Weaven, 2008).

Assessing students' responses on a Likert scale results with P score which reflects the level of post conventional reasoning of the respond-

ents. Minnesota research group proposed schema theory and a new index as an alternative to stages of moral development and P index (Rest, Thoma, Narvaez, & Bebeau, 1997). Schemas were defined as knowledge constructs which places on the mind in a longtime. Schemas include expectations, hypotheses, concepts, and regularity, and are formed by experiences. The name of the new index was N2 which did fine work on. During the twenty-five years, Rest et al. (1999; 2000) conducted factor analyses with 50.000 participants, and proposed three schemas about moral development. The first schema named Personal Interest which consists of both second and third stages of Kohlberg's moral development and refers to step of pre-society. People consider only their own or relatives' benefits instead of the society. The second schema named Maintaining Norms and only consists of fourth stage and includes need the norms in society and maintaining norms. The third schema named Postconventional which consists of stage five and six and is based upon the priority of moral criteria, loyalty to ideal, distributable ideals, and reciprocity.

The Translation and Adaptation of the DIT to Turkish

As a first attempt in Turkey, the DIT was translated into English by Çileli (1981) in her dissertation as "Görüşleri Belirleme Testi". Akkoyun (1987) used this test and investigated the relationship between empathy and moral reasoning in her study. Akkoyun (1987) did reliability and validity study on the test. Later, Cesur (1997) translated four stories compatible with the Turkish culture from this test and explored the relationship between cognitive and moral development. This Turkish version of the instrument was used by many researchers in Turkey (e.g., Bulduk & Cesur, 1999; Eğeci & Cesur, 2002; Haskuka, Sunar, & Alp, 2008; Tolunay, 2001).

Purpose

The purpose of the present study is twofold: First, to develop a reliable and valid Turkish version of the DIT which is one of the most important moral development instruments in the psychology and educational psychology research; second, to explore the relationships between moral development and age, education, gender, and parental education in Turkey.

Method

Participants

The study group consisted of 584 voluntary participants (365 female participants and 219 male participants) from various departments (e.g., psychology, elementary education, engineering, and pharmacy) of Boğaziçi University, İstanbul University, and Yüzüncü Yıl University. The mean of participants' age was 20,6 years ($SD = 2.0$, Range = 17 – 36). The study group consists of 242 first graders, 192 second graders, 51 third graders, and 99 fourth graders.

Measures

The Defining Issues Test: The test is based upon the Kohlberg's Moral Reasoning Theory including six stages of moral development (Rest, 1986). The participants read a story including a moral dilemma, and then made a judgment about this dilemma. After that, twelve statements were given to students, and participants filled out the five-point Likert scale based on their judgments, the participants selected the most important four statements among the twelve statements based on their judgments. Twelve statements for each story represent different stages of moral development (Rest et al., 1997).

The version of the DIT including four stories translated into Turkish (Cesur, 1997) was used in the present study. This version had been checked by two social psychologists for the content and face validity of the DIT. During the translation, names and jobs in original version of the test were changed in a way that was compatible with the Turkish culture. Moreover, in the present study, this version of the DIT was checked by one educational psychologist and an English language expert in terms of content of stories and statements, and language. Back translation method was also used to handle the difficulties stemming from translation process. As a result, the test named "Değerlerin Belirlenmesi Testi" consisting of four stories, and forty-eight statements (12 for each story) was used in the current study.

Implementation

Tests were administered by the researchers of the present study during the class hours.

Findings

The reliability of the DIT was assessed by Cronbach alpha and test-retest analyses. In addition, the validity of the DIT was assessed by face, content, and construct validity methods.

Data Consistency Control

Two criteria were used to obtain an ideal study group. The first one is an M score, and the second one is consistency criterion. After implementing these criteria, %30.8 of data were discarded before the analyses.

Descriptive Statistics about the Defining Issues Test

Descriptive information about schema scores of the participants based on the schema theory developed by Rest and colleagues (1999; 2000) were given in Table 1.

Table 1.
Descriptive Statistics about Schema Scores (N=584)

Schemas	Minimum	Maximum	\bar{x}	sd
S23 Personal Interest	0	65	30.06	11.58
S4 Maintaining Norms	0	95	28.07	13.83
S56 Postconventional	0	92.5	39.31	17.66

Reliability Results of the DIT and the Relationships among the Schemas

The Cronbach α and test-retest values of each schema, and correlation values among the schemas were given in Table 2.

Table 2.
Cronbach α Values for each Schema and Correlation Values among the Schemas

Schemas	Alfa	Test-Retest Test (N=145)	S23	S4	S56
S23 Personal Interest	.58	.53*	1	-.29*	-.42*
S4 Maintaining Norms	.58	.53*	-.29*	1	-.53*
S56 Postconventional	.60	.57*	-.42*	-.53*	1

* $p < .01$

Examination of Moral Development in terms of Age, Class, University, Major, Gender, and Parent Education Level

According to the correlation analyses, no significant relationship was found between age and each moral schema ($r = -.03, r = .07, r = -.07, p > .05$), and between class level and each moral schema ($r = -.02, r = .04, r = -.04, p > .05$).

For Personal Interest schema, no significant difference among the universities was found [$F(2,583) = 2.235, p > .05, \eta^2 = .09$]. For Maintaining Norms schema, there were significant differences among the universities [$F(2,583) = 21.915, p < .001, \eta^2 = .26$]. Yüzüncü Yıl University students have higher scores than both İstanbul University and Boğaziçi University, and İstanbul University students have higher scores than Boğaziçi University students. For Post-Conventional schema, it was found statistically significant differences among the universities [$F(2,583) = 24.916, p < .001, \eta^2 = .28$]. Boğaziçi University has higher scores than both İstanbul University and Yüzüncü Yıl University; İstanbul University students have higher scores than Yüzüncü Yıl University students.

For Personal Interest schema, no significant difference was found among the students' departments [$F(3,583) = 2.317, p > .05, \eta^2 = .11$]. For Maintaining Norms schema, significant differences were found among the students' departments [$F(3,583) = 12.479, p < .001, \eta^2 = .25$]. Pre-service Elementary Teachers (PET) have higher scores than Engineering/Pharmacy, other Social Sciences, and Psychology students; Engineering/Pharmacy students have higher scores than other Social Science and Psychology students. For Post-Conventional schema, significant differences were found among the students' departments [$F(3,583) = 12.662, p < .001, \eta^2 = .25$]. The other Social Science and Psychology students have higher scores than Engineering/Pharmacy and PET, and Engineering / Pharmacy students have higher scores than PET.

Male and female students did not differ in terms of Personal Interest scores [$t(582) = -1.077, p > .05, \eta^2 = .05$]. For Maintaining Norms, males had higher scores than female students [$t(582) = -2.256, p < .05, \eta^2 = .25$]. In post conventional schema, female students had higher scores than male students. [$t(582) = 4.294, p < .01, \eta^2 = .09, \eta^2 = .73$].

The relationships between father-mother education level and schema scores were also investigated. While it was not found any relationship

between father education level and schemas, it was found a negative significant relationship between mother education level and maintaining norms schema ($r = -.22, p < .01$) and positive significant relationship between mother education level and post-conventional level ($r = .16, p < .05$).

Results

For three schemas obtained from the DIT, the values of alpha and test-retest correlation coefficient ranged from .58 to .60 and from .53 to .57 respectively. When we keep in view of using a short version of the DIT (Rest et al., 1997), homogeneous sample (Thoma, 1986), and difficult structure of the instrument, it can be thought that the values of reliability are in plausible levels. In the present study, to establish validity of the scale, both face and content validity (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2008) were considered by the researchers. The DBT were examined by both Turkish and English language experts. Moreover, the contents of the instrument were examined by educational and social psychologists.

In Neo-Kohlbergian approach (Rest et al., 1999; 2000), moral reasoning develops as “schema using” instead of “distinctive stage transitions”. When the individuals’ moral reasoning develops, the low stage schema scores decrease and the high stage schema scores increase (Thoma, Barnett, Rest, & Narvaez, 1999). Therefore, the negative correlation values among the schemas obtained from the present study support the theoretical structure of Schema theory.

In the current study, there was not any significant relationship between the schemas of the DIT and participants’ age and educational level (grade). However, most research studies claim that there is a significant positive relationship between moral reasoning and students’ age and education level (e.g., Gielen, 1996; Martin et al., 1977; Moon, 1986; Rest, 1975; Rest et al., 1978; Rest et al., 1999; Rest et al., 2000; White, 1975). The reason of our finding can be stemmed from the restricted distribution of the study group’s age and education level.

A significant relationship was found between the participants’ schema scores and their universities. Several researchers stated that the moral atmosphere in the institution can affect individuals’ moral reasoning (Bebeau, 2002; Gibbs et al., 2007; King & Mayhew, 2002). The participants from Boğaziçi University exhibited higher moral development

schemas. This result may be interpreted that Boğaziçi University provides a variety of social opportunities for the students, and these opportunities lead to using post conventional schema for Boğaziçi University students. Another interpretation may be that most students already in the post conventional level might select Boğaziçi University before the entrance to this university.

The significant relationships between participants' schemas and departments in the university were also found. For Maintaining Norms schema, PET has higher scores than Engineering/Pharmacy, other Social Sciences, and Psychology students; Engineering/Pharmacy students have higher scores than other Social Science and Psychology students. For Post-Conventional schema, the other Social Science and Psychology students have higher scores than Engineering/Pharmacy, and PET; Engineering/Pharmacy students have higher scores than PET. Similar results can be found at literature (e.g., Bernardi, et al., 2004; Cesur, 1997; Moon, 1986). The difference among the departments may be stemmed from the students' pre-existing moral development differences before their undergraduate education. The participants showing higher ability in perspective taking and empathy may select the departments of psychology and social sciences. However, McGeorge (1975) stated that this difference may be stemmed from the people's experiences before starting the university. PET mostly exhibited maintaining norms schema. Since PET learns how the teachers should plan learning and teaching, and how they should construct a disciplined environment in the classrooms during their education, they might make their decisions depending upon maintaining norms.

Most of the studies related to the DIT showed that although the difference is not huge (Stephens, 2009; Walker, 1989; Walker et al., 1987), females exhibited more quantity of post conventional schemas than males (Bebeau, 2002; Cesur, 1997; Gielen, 1996; Ma, 1989; Moon, 1986; Thoma, 1986 and Tolunay, 2001). In the present study, males have higher scores than female students in terms of maintaining norms, and female students have higher scores than male students in terms of post conventional schema. These findings may be interpreted that since females had a higher empathy levels than males (Hoffman, 1993); they had a higher scores in moral development. There are also empirical study findings reporting higher empathy levels for females (Eagly, 1987; Thoma, 1986). Moreover, İmamoğlu and Karakitapoğlu Aygün (1999) reported that

since males traditionally have a job in which they protect social values in Turkish society, they may have higher scores than female students in terms of maintaining norms.

As a last effort, we investigated the relationship between moral development and mother/father education level. While no significant relationship between father education level and schemas was found, a negative significant relationship between mother education level and maintaining norms schema and a positive significant relationship between mother education level and post-conventional level were found. Several researchers noted that parental attitude influences children's moral development (Walker & Hennig, 1999; Walker & Taylor, 1991; White, 2000; White & Matawie, 2004; Yağmurlu, Çıtlak, Dost, & Leyendecker, 2009). According to Reimer (1993), democratic atmosphere in the family provides a healthy moral development for the children. According to the literature, well-educated mothers were found as more democratic (Arendell, 2000), and a negative relationship between parents' socio-economic status and their importance to conformity values was found (Ellis, Lee, & Peterson, 1978). Moreover, according to Kağıtçıbaşı's (1999, 2005) Family Change Model, there is possibly a relationship between parents' attitudes towards raising a child and parents' educational level. In urban regions, while the parents raise a child, harmoniousness and obedience to parent is less-conservative. Children's development of self-determination is a factor that influences the schema of maintaining norms more than the schema of post conventional norms.

Although the DIT provides an objective method (Rest, 1974) to assess moral reasoning, it is criticized by Martin et al. (1977) and Gielen (1986) that the structure of moral reasoning does not clearly separated from the content used in moral reasoning with DIT. Furthermore, several researchers (e.g., Kay, 1982; Rest, 1986; Gielen, 1996) stated that DIT has some restrictions for the implementation.

In conclusion, the Turkish version of the DIT was developed and validated in the present study. Related to the development of a reliable instrument, the alpha and test-retest correlation coefficient values were found in acceptable range; related to development of a valid instrument, face and content validity were established, and with the results of schema analyses, a construct validity of the instrument was also provided. The findings of the current study showed that the DIT can be used in a variety of research areas such as education and psychology in Turkish

context. In further research, the research designs compatible with the present study can be prepared and implemented, thus the developed instrument can have more strong structure in terms of convenience to Turkish language and culture.

References/Kaynakça

- Akkoyun, F. (1987). Empatik eğilim ve ahlaki yargı. *Psikoloji Dergisi*, 6(21), 91-97.
- Arendell, T. (2000). Conceiving and investigating motherhood: The decade's scholarship. *Journal of Marriage and Family*, 62(4), 192-218.
- Bebeau, M.J. (2002). The defining issues test and the four component model: Contributions to professional education. *Journal of Moral Education*, 31(3), 271-295.
- Bernardi, R. A., Metzger, R. L., Bruno, R. G. S., Hoogkomp, M. A. W., Reyes, L. E., & Barnaby, G. H. (2004). Examining the decision process of students' cheating behavior: An empirical study. *Journal of Business Ethics*, 50, 397-414.
- Bulduk, S., & Cesur, S. (1999, July). *Learned helplessness effect on moral reasoning*. Paper presented at the Stress and Anxiety Research Society 20th International Conference. Krakow, Poland.
- Büyüköztürk, Ş., Kılıç-Çakmak, E., Akgün, Ö. E., Karadeniz, Ş., ve Demirel, F. (2008). *Bilimsel Araştırma Yöntemleri*. Ankara: Pegem Yayıncılık.
- Cesur, S. (1997). *The relationship between cognitive and moral development*. Yayınlanmamış yüksek lisans tezi, Boğaziçi Üniversitesi, Sosyal Bilimler Enstitüsü, İstanbul.
- Eagly, A. H. (1987). *Sex differences in social behavior: A social-role interpretation*. Hillsdale, NJ: Erlbaum.
- Eğeci, S., & Cesur, S. (2002, Eylül). *Ahlaki yargı ile kişilik arasındaki ilişki*. XII. Ulusal Psikoloji Kongresinde sunulan poster, ODTÜ, Ankara.
- Ellis, G. J., Lee, G. R., & Peterson, L. R. (1978). Supervision and conformity: A cross-cultural analysis and parental socialization values. *The American Journal of Sociology*, 84(2), 386-403.
- Froming, W. J., & McColgan, E. B. (1979). Comparing the defining issues test and the moral dilemma interview. *Developmental Psychology*, 15(6), 658-659.
- Gibbs, J. C., Basinger, K. S., Grime, R. L., & Snarey, J. R. (2007). Moral judgment development across cultures: Revisiting Kohlberg's universality claims. *Developmental Review*, 27, 443-500.
- Gielen, U.P. (1996). Moral reasoning in cross-cultural perspective: a review of Kohlbergian research. *World Psychology*, 2(3-4), 313-333.
- Gielen, U., & Lei, T. (1994). The measurement of moral reasoning. In L. Kuhmerker (Ed.), *Kohlberg's legacy for the helping professions* (pp. 61-81). Alabama: Doxa Books.
- Haan, N., Langer, J., & Kohlberg, L. (1976). Family patterns of moral reasoning. *Child Development*, 47, 1204-1206.
- Haskuka, M., Sunar, D., & Alp, İ. E. (2008). War exposure, attachment style and moral reasoning. *Journal of Cross-Cultural Psychology*, 39(4), 381-401.
- Herrington, C., & Weaven, S. (2008). Improving consistency for DIT results using cluster analysis. *Journal of Business Ethics*, 80, 499-514.
- Hoffman, M.L. (1993). Empathy, social cognition and moral education. In A. Garrot (Ed.) *Approaches to moral development* (pp. 157-179). Teachers College, Columbia University.
- Holstein, C. B. (1976). Irreversible, stepwise sequence in the development of moral judgment: a longitudinal study of males and females. *Child Development*, 47, 51-61.

- İmamoğlu, E.O. ve Karakitapoğlu Aygün, Z. (1999). 1970'lerden 1990'lara değerler: Üniversite düzeyinde gözlenen zaman, kuşak ve cinsiyet farklılıkları. *Türk Psikoloji Dergisi*, 14(44), 1-22.
- Kağıtçıbaşı, Ç. (1999). The model of family change: A rejoinder. *International Journal of Psychology*, 34(1), 15-17.
- Kağıtçıbaşı, Ç. (2005). Autonomy and relatedness in cultural context, implications for self and society. *Journal of Cross Cultural Psychology*, 20(10), 1-20.
- Kay, S. R. (1982). Kohlberg's Theory of Moral Development: Critical analysis of validation studies with the defining issues test. *International Journal of Psychology*, 17, 27-42.
- King, P. M., & Mayhew, M. J. (2002). Moral judgement development in higher education: Insights from the Defining Issues Test. *Journal of Moral Education*, 31(3), 247.
- Kohlberg, L. (1969). Stage and sequence: The cognitive-developmental approach to socialization. In B.A. Goslin (Ed.), *Handbook of socialization theory and research* (pp. 347-480). San Francisco: Rand McNally.
- Kohlberg, L. (1973). Stages and aging in moral development. *The Gerontologist*, winter, 497-503.
- Kohlberg, L., & Kramer, R. (1969). Continuities and discontinuities in childhood and adult moral development. *Human Development*, 12, 93-120.
- Krebs, D., & Gillmore, J. (1982). The relationship among the first stages of cognitive development, role-taking abilities, and moral development. *Child Development*, 53, 877-886.
- Lind, G. (2009, July). *The moral judgment test*. Paper presented at The Association for Moral Education: 35th Annual Conference. Utrecht University, The Netherlands.
- Ma, H. K. (1989). Moral orientation and moral judgment in adolescents in Hong Kong, Mainland China, and England. *Journal of Cross-Cultural Psychology*, 20(2), 152-177.
- Martin, R. M., Shafto, M., & Van Deirse, W. (1977). The reliability, validity, and design of the Defining Issues Test. *Developmental Psychology*, 13(5), 460-468.
- McGeorge, C. (1975). Susceptibility to faking of the Defining Issues Test of moral development. *Developmental Psychology*, 11(1), 108.
- Moon, Y. (1986). A review of cross-cultural studies on moral judgment development using the Defining Issues Test. *Behavior Science Research*, 20(1-4), 147-177.
- Nichols, M. L., & Day, V. E. (1982). A comparison of moral reasoning of groups and individuals on the Defining Issues Test. *Academy of Management Journal*, 25(1), 201-208.
- Nisan, M., & Kohlberg, L. (1982). Universality and variation in moral judgment: A longitudinal and cross-sectional study in Turkey. *Child Development*, 53, 865-876.
- Nisbett, N., & Wilson, T. D. (1977). Telling more than we know: Verbal responses to mental processes. *Psychological Review*, 84, 231-259.
- Park, J. Y., & Johnson, R. C. (1984). Moral development in rural and urban Korea. *Journal of Cross-cultural Psychology*, 15(1), 35-46.
- Reimer, J. (1993). The case of missing family: Kohlberg and the study of adolescent moral development. In A. Garrod (Ed.), *Approaches to moral development* (pp. 93-94). New York: Teachers College Press.

- Rest, J. R. (1975). Longitudinal Study of the Defining Issues Test of moral judgment: A strategy for analyzing developmental change. *Developmental Psychology, 11*(6), 738-748.
- Rest, J. R. (1986). *Manual for the Defining Issues Test*. (3th ed). Minneapolis: Center for the Study of Ethical Development, University of Minnesota, Minneapolis.
- Rest, J. R., Cooper, D., Coder, R., Masanz, J., & Anderson. (1974). Judging the important issues in moral dilemmas: An objective measure of development. *Developmental Psychology, 10*(4), 491-501.
- Rest, J. R., Davison, M. L., & Robbins, S. (1978). Age trends in judging moral issues: A review of cross-sectional, longitudinal, and sequential studies of the Defining Issues Test. *Child Development, 49*, 263-279.
- Rest, J. R., Narvaez, D., Thoma, S. J., & Bebeau, M. J. (2000). A Neo-Kohlbergian Approach to morality research. *Journal of Moral Education, 29*(4), 381-395.
- Rest, J. R., Narvaez, D., Bebeau, M. J., & Thoma, S. J. (1999). A Neo-Kohlbergian approach: The DIT and Schema Theory. *Educational Psychology Review, 11*(4), 291-324.
- Rest, J. R. & Thoma, S. J. (1985). Relation of moral judgment development to formal education. *Developmental Psychology, 21*(4), 709-714.
- Rest, J. R., Thoma, S. J., Narvaez, D., & Bebeau, M. J. (1997). Alchemy and beyond: indexing the Defining Issues Test. *Journal of Educational Psychology, 89*, 498-507.
- Schaeffli, A., Rest, J. R., & Thoma, S. J. (1985). Does moral education improve moral judgment? A meta-analysis of intervention studies using the Defining Issues Test. *Review of Educational Psychology, 55*(3), 319-352.
- Shweder, R. A., Mahapatra, M., & Miller, J.G. (1987). Culture and moral development. In J. Kagan & S. Lamb (Eds.) *The emergence of morality in young children* (pp. 1-90), Chicago and London: University of Chicago Press.
- Stephens, D.G. (2009). *A correlation study on parental attachment and moral judgment competence of millennial generation college students*, Unpublished doctoral dissertation, The Graduate College at the University of Nebraska, Lincoln, Nebraska.
- Thoma, S.J. (1986). Estimating gender differences in the comprehension and preference of moral issues. *Developmental Review, 6*, 165-180.
- Thoma, S. J., Barnett, R., Rest, J., & Narvaez, D. (1999). What does the DIT measure? *The British Journal of Social Psychology, 38*, 103-111.
- Tolunay, A. (2001). *The relationship between religiosity, dogmatism and moral reasoning*, Yayınlanmamış yüksek lisans tezi, Boğaziçi Üniversitesi, Sosyal Bilimler Enstitüsü, İstanbul.
- Walker, L. J. (1989). A longitudinal study of moral reasoning. *Child Development, 60*, 157-166.
- Walker, L.J. (2002). The model and the measure: An appraisal of the Minnesota Approach to moral development. *Journal of Moral Education, 31*(3), 353-367.
- Walker, L. J., & Hennig, K. H. (1999). Parenting style and the development of moral reasoning. *Journal of Moral Education, 28*, 359-374.
- Walker, L. J., & Taylor, J. H. (1991). Family interactions and the development of moral reasoning. *Child Development, 62*, 264-283.

- Walker, L. J., de Vries, B., & Trevethan, S. D. (1987). Moral stages and moral orientations in real-life and hypothetical dilemmas. *Child Development, 58*, 842-858.
- Weinreich-Haste, H. (1977). Some consequences of replicating Kohlberg's original moral development study on a British sample. *Journal of Moral Education, 7*, 32-39.
- White, C. (1975). Moral development in Bahamian school children: A cross-cultural examination of Kohlberg's stages of moral reasoning. *Developmental Psychology, 11*(4), 535-536.
- White, F. A. (2000). Relationship of family socialization processes to adolescent moral thought. *The Journal of Social Psychology, 140*(1), 75-91.
- White, F. A., & Matawie, K. M. (2004). Parental morality and family processes as predictors of adolescent morality. *Journal of Child and Family Studies, 13*(2), 219-233.
- Yağmurlu, B., Çıtlak, B. Dost, A. ve Leyendecker, B. (2009). Türk annelerinin çocuk sosyalleştirme hedeflerinde eğitime bağlı olarak gözlemlenen farklılıklar. *Türk Psikoloji Dergisi, 24*(63), 1-19.