

EFFECT OF DOGMATIC RELIGIOSITY AND EDUCATIONAL ENVIRONMENT ON MORAL JUDGMENT COMPETENCE



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**EFFECT OF DOGMATIC RELIGIOSITY AND EDUCATIONAL ENVIRONMENT ON
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ABSTRACT

The present study aimed to investigate the effect of dogmatic religiosity and educational environment -with more or less role-taking and guided reflection opportunities- on the moral judgment competence of university, college and madrassah students. Data (N = 403) of students studying in bachelor and higher classes were collected from eight different institutes of Punjab, Khyber Pakhtoonkha, and Islamabad regions. Three instruments, ORIGIN/u questionnaire, Dogmatic and Personal Religiosity Scale (DPR-scale) and Moral Judgment Test-Urdu (MJT-Urdu) were used for the purpose of data collection. The important findings included: (i) the educational environment was found to have insignificant but small negative effect on moral judgment competence while it had been found to reduce moral segmentation, (ii) In university students with advantaged educational environment slight increase in moral competence was observed but college students showed no such pattern, (iii) religiously more dogmatic students showed insignificant but relatively lower moral judgment competence in comparison to less dogmatic students. (iv) less dogmatic students also showed lower moral segmentation than more dogmatic students, (v) almost all groups showed more preference for postconventional moral arguments and less preference for conventional and preconventional moral arguments, (vi) madarris showed very low moral competence in comparison to colleges and universities, (vii) role of universities have been found to be positive in stabilizing moral competence and reducing moral segmentation comparative to colleges that showed slight moral regression and increase in segmentation, (viii) no gender differences in moral judgment competence were observed though females showed more moral segmentation, (ix) overall very high dogmatic religiosity was observed in the whole sample while comparing to many international studies very low moral judgment competence was seen in the Pakistani sample (Mean = 11.7).

INTRODUCTION

The present study is designed to see the effect of dogmatic religiosity and educational environment on the moral judgment competence of students belonging to universities, colleges and madaaris (religious seminaries). For this purpose, graduate students from eight different institutes were selected as a sample of the study. The past literature has shown an important relationship between type of religiosity and moral judgments that people make, especially strictly held dogmatic beliefs have found to lower moral judgment. It becomes very important in countries like Pakistan that are conservative and very religious in their beliefs to understand this relationship. The literature also shows a contributive role of educational institutes having more practical opportunities of work and more flexible and sharing environment in the development of rational abilities that further lead to higher growth of judgment related to moral issues. Pakistani educational institutes being lacking in many practical opportunities for students and mainly relying on teacher centralized methods of instruction constitute an important area of study. The present work takes into consideration the cognitive developmental paradigm of moral development which is quite distinct from other approaches to morality. Mainly this work is based on Georg Lind's dual-aspect theory of moral development that describes moral growth occurring simultaneously in two distinct but inseparable cognitive and affective areas. Lind's conception of morality derives very many ideas from earlier works of Lawrence Kohlberg and he tries to overcome the weaknesses of Kohlberg's assessment methods by using a theoretically valid tool called Moral Judgment Test (MJT) that simultaneously takes into account both cognitive and affective aspects and provides a unique index called "moral judgment competence." The detail of important constructs used in this work is described in the subsequent pages with important theoretical and research considerations.

One of the pioneers in the scientific research on the cognitive moral growth in children is Jean Piaget who mainly based his work on his theory of the development of general cognitive abilities and considered moral cognitions developing parallel with general cognitive functions. He made a distinction between autonomous and heteronomous types of moral judgments in children. According to him these two types of moral orientations showed different sociomoral perspectives. Children at heteronomous stage showed a unilateral and uncritical respect for one's parents and their prescribed rules and laws, it was generally an orientation characterized by subjugation to the rules set by some external, more powerful authority figures. On the other hand the autonomous moral orientation that succeeded the heteronomous orientation was more related to mutual respect among peers and equals and primarily characterized by fairness and reciprocity in relationships. Piaget also focused on the emergence of sense of justice as the focal point in moral judgment and claimed distributive justice as the most fundamental form of the whole domain of justice which in the autonomous type was shown by more inclination to equality and reciprocity and was highlighted by taking into account individual perspectives and their objective situations. In autonomous types the other form of justice that is the retributive justice was also inclined toward those individual considerations which was not simply punishing the offender because he/she did something wrong but also considering objective condition of the offender to give them appropriate retribution (Colby et al., 1987, *p.* 328-329).

Lawrence Kohlberg's Conception of Morality

Kohlberg started his doctoral work to evaluate and confirm Piaget's heteronomous/autonomous division in the development of moral thought. Instead of this simple dichotomy, he noticed finer discriminations in children's and adolescents' moral reasoning that needed more exploration and elaboration and that ultimately led to his multistage concept of moral development (Colby et al., 1987). Kohlberg's ideas were influenced by many thinkers like

Mead, Spinoza, Kant, Hebermas and Piaget that contributed in the development of his very comprehensive theory of development of moral thought (Lind, 1989). Like Piaget, he focused on the development of cognitive abilities which he thought were fundamental to the development of moral behavior. Kohlberg believed an individual to be an operator of his/her experiences and not a passive receiver of all what is happening around. The moral world was a self-constructed world of an individual and this development was not haphazard but followed a hierarchical pattern with individual moving from simple and narrow focus on one's ego to increasing care about *system's morality*, that is an increasing awareness about society's stable functioning rather than egoistic interests and the desire for the endorsement of rules and laws to realize such aspirations (Rest, Narvaez, Bebeau & Thoma, 1999, pp 1-2).

Kohlberg developed his own theoretical framework of the moral cognitive growth of people. His conception can be regarded as an elaboration of Piagetian contribution and indicated moral development as a phenomenon of reduction of egocentrism and development of social and principled perspectives. Usually four general criteria have been highlighted in cognitive developmental literature to understand Piagetian concept of developmental stages that also describe the nature of Kohlberg's stage theory of cognitive moral development. That criteria can be described as: (1) stages are qualitative differences in modes of thought at various points of development, and that differences are basically a continuum of some basic theme; (2) the differences have an invariant sequence; (3) each of these modes of thought represent a "structural whole" which means each point of development shows a unique thought organization; and, (4) stages are hierarchical with each advancing stage showing more complex organization than the preceding one (Colby et al., 1983, p. 1; Colby et al., 1987, p. 6-7).

Kohlberg introduced a stage theory of moral development, and explained six moral stages within three broader levels of maturity of thought; in each level two qualitatively different stages

were incorporated that due to similarity of some content aspects could be included within a same level. In Kohlbergian paradigm, the first level that is the *preconventional level* represents most of the children under the age of 9 years, some adolescents and also many criminal offenders. This level is subcategorized into two moral stages; the first stage represents a heteronomous morality which is characterized by lacking an insight into the intention and/or context of some action, at this stage of development, individuals use to consider certain actions to be inherently good or bad, for example considering the act of lying as inherently wrong without considering intentions. At this stage, usually acts are assessed on the basis of immediate consequences. If consequences are pleasing then the act is morally right and if act leads to punishment then the act is considered to be immoral. The second stage of the moral development is characterized by emerging relativism which is the inconsideration for absolutism of certain acts and a development of sense of recognition that there could be more standpoints than one's own egocentric perspectives. At this stage the relativism lacks grounding and an individual sees different acts justifiable according to one's own egoistic needs instead of considering aspects like empathy, deservingness etc. So any act is considered to be morally correct if it gives some sort of benefit to oneself.

The *conventional level* of moral development is a shift from egoistic standpoint to societal stand point. This level also incorporates qualitatively two distinct stages of development (stage 3 and 4). The third stage is characterized by the recognition of the existence of social norms which is a third person objective point of view where acts are considered to be good or bad by seeing to what extent these are in consonance with shared social norms, so in a way, a person is good if he does something approved by the society. The fourth stage is the emergence of more objective sociomoral thought, in which social system is considered to be a generalized set of rules that need to be impartially applied to people and their acts. There is more awareness of the formal structure of society especially in a legal codified sense. Usually laws and

conventions are given absolute worth and any deviation is considered unjustified and threatening to the cohesion of society. Religious injunctions that have absolute status are also the reflection of that preservative from of reasoning. For Kohlberg the ultimate development of moral cognitions is *postconventional* which is a view point that discusses mutual construction of society based on universalizable moral principles. The fifth stage of postconventional morality represents a democratic attitude in which a person develops an understanding that social rules, laws and customs are not absolute imperatives that cannot be violated at all, but one's understanding includes the awareness that laws are human construction that are developed to protect human rights and need not be rigidly followed without considering the context in which certain acts happen. The sixth stage which is characterized by highly developed principled moral thought is the apex of moral cognitive development. This form of thinking is the proneness to rely more on abstract universal principles of justice, impartiality, and fairness and personal conscience instead of some codified law is given more importance as the absolute standard of morality (Colby et al., 1983; Colby et al, 1987).

Kohlberg's claim that moral development proceeds through an invariant sequence of stages was examined experimentally by attempting to induce regression and stage skipping by Walker (1982). Fifth-through seventh-grade children were tested to determine their cognitive, perspective taking, and moral development. Results supported the sequentiality claim as development was always to the next higher stage. However, contrary to the view that exposure to 1-stage-above reasoning represented the optimal means to induce development, it was found that 2-stages-above reasoning was just as effective. Another longitudinal study by Armon and Dawson (1997) also found support for the sequentiality claim with stage occurrence decreasing with age in a curvilinear fashion. Advance in moral reasoning stage was also observed to be correlated with education. Nisan and Kohlberg (1982) also found support for structural

universality in moral judgment and sequentiality of moral stages in a study conducted in urban and rural areas of Turkey. Rural subjects in their study were found to justify their moral decisions more on normative and utilitarian modes while urban subjects tended to use more deontological arguments to support their decisions.

Limits to Kohlberg's approach

Several forms of criticism have been made on Kohlberg's developmental concept of moral cognitions. It has been argued that Kohlberg's theory is more political in nature as it focused more on justice and rights and duties instead of goodness and virtues. Siegler (1997, cited in Rest et al. 1999, p. 19) criticizes Kohlberg's stage concept on the basis that in all areas of cognitive development children typically have multiple ways of thinking about most phenomena, and cognitive developmental change shows shift in the frequency of use of these ways of thinking as well as the introduction of novel ways of thinking; change could better be explained as overlapping waves rather than a hierarchy. Another criticism points out that Kohlberg's concept is a top-down approach to morality which is based upon foundational principlism. The foundational principles provide abstract moral criteria from which guidelines for concrete cases can be deduced. This approach is criticized by bottom-up approaches that suggest that only abstract criteria do not always provide moral guidelines but also specific cases might lead to many ethical decision makings that can set some ethical criterion for the future to deal with similar cases (Rest et al. 1999, p. 24-25). Kohlberg was also criticized for being an absolutist because of his preference for principled stage 6 orientation as the highest level of development. But Kohlberg himself distinguished between rule principlism and constructive principlism. Rule principlism neglects the particular context and raises the rule to an absolute status for example a rule that one should always behave honestly is the absolute principle. Constructive principlism takes context into account as well and derives guidelines from the absolute principles, but it is

not blind application of the absolute rules instead it allows the flexibility to put oneself in others' roles as well in order to develop a full contextual understanding of some moral situation which gives way to much well informed decision instead of stubbornly glued to some abstraction. Critics also argued that Kohlberg favored impartial stage 6 principles over valuing intimate personal relationships represented by stage 3 considering them to be primitive (Rest et al. 1999, p. 5, 29).

Hogan (cited in Tsujimoto and Nardi, 1978) claims that Kohlberg's theory and methodology provides an idealistic and principled point of view of subjects while his own theory more thoroughly explores the factual understanding about moral issues. Hogan does not discriminate between social domain and moral domain and believes that all moral and social behaviors occur within certain social rules. Hogan presents five dimensions of moral character that he claims can predict moral conduct more effectively than Kohlberg's unidirectional cognitive developmental approach. These dimensions include, (i) knowledge of moral values and rules, (ii) personal significance of such rules, (iii) understanding of others' expectations to regulate one's actions, (iv) personal autonomy for moral behavior, and, (v) moral judgment that can discriminate between ideal principles and social rules and customs. Tsujimoto and Nardi showed both of the views i.e. Hogan's and Kohlberg's, quite compatible and emphasized that both approaches were comparative for further research.

Carol Gilligan's Morality of Care

The literature shows much heated debate between proponents of Kohlberg and Gilligan about the nature of morality (see Blum, 1988; Jorgensen, 2006). Gilligan claims that Kohlberg's conception of morality is too rationalistic and impartial that does not give space to empathy, care, loyalty, and responsibility among interpersonal relations. Morality does not exclusively originate

from some universal principles that are unrelated to people and their relationships; for Gilligan people are not isolated beings cut off from all social relations and that is why morality is a complex integration of both impartial principles and phenomena of care and compassion among persons. For Gilligan, each person has a unique importance and moral considerations must always take this uniqueness into account by considering each person existing in their own right instead of taking morality as impersonal principled phenomenon as described by Kohlberg. Emotions have their own place in moral behavior than a robotic rationality alone and moral behavior cannot be reduced to cognitions alone. Though Gilligan does not favor moral relativism, but at the same time she rejects Kohlberg's universalistic application of moral principles to all individuals. Her morality can be considered as more concretely oriented, in the practical world, with real human beings interacting in day to day life; on the contrary, Kohlberg by following Kant ignores this concrete aspect and studies morality for the sake of it i.e. taking universal moral principles existing in their own right that do not necessarily need to take into account human objective conditions (Blum, 1988).

Rest, Narvaez, Bebeau & Thoma (1999) also distinguished between two broader domains of morality named as micro and macromorality. According to them "macromorality concerns the formal structures of society that are involved in making cooperation possible at a society level" This morality generally deals at a broader social level and is more concerned about functioning of institutions of society where there is a need of certain degree of impartiality and objectivity in decision making. In addition to dealing with blood relations, friends, and acquaintances, it is related to dealing with strangers, diverse ethnic or religious groups and competitors where less subjectivity is preferred in order to be fair. This macromorality usually covers broader topics like the rights and responsibilities of free speech, nondiscriminatory work practices, freedom of religion, and equal economic and educational opportunities etc. On the other hand,

micromorality is more concerned with personal loyalties, development of everyday mannerism, being careful and empathetic to others etc. Examples of micromorality include displaying courtesy and helpfulness to people, caring in intimate relationships, observing birthdays and other personal events of friends and family, and generally acting in a decent, responsible, empathic way in one's daily dealings with others (Rest et al. 1999, p. 2).

James Rest's Maintaining Norms and Postconventional schemas: A Neo-Kohlbergian Approach

Rest et al. (1999; 2000) replaced Kohlbergian hard stage division with soft schema differentiation. Instead of Kohlberg's stage 4, 5 and 6 that equate with conventional and postconventional stages of moral development, Rest used roughly equivalent terminology i.e. *maintaining norms schema* and *postconventional schema*. Schema is conceived by Rest et al. (1999; 2000) as "a cognitive structure that consists of the mental representation of some stimulus phenomena, including the relationships among the elements. Schema are general cognitive structures in that they provide skeletal conception that is exemplified (or instantiated) by particular cases or experiences" (p. 136). Rest et al. (1999; 2000) considered moral schemas to be distinguished from general cognitive schemas used in social cognition research on the basis that in social cognition research schemas are dealt at more concrete levels (e.g. person or role schemas) while moral schemas are highly abstract versions of these concrete schemas dealing with how certain roles or persons interact in a social setting to establish some moral order (p. 137). Rest et al. also opine that social cognitive research focuses more on memory with experiments emphasizing recall and reaction time while cognitive moral approach emphasizes change over time and schema structure modifying from simple to complex with the passage of time (p. 138).

Maintaining norms schema

This concept of Rest et al. is like stage 4 of Kohlberg's hierarchy. This schema is characterized by maintaining social order. Law is considered supreme and it is thought that if there is no law, then people would act on their own personal interests disregarding rights of others and anarchy will result. In this schema morality is equal to law and only argument for something to be moral or immoral is its legal or normative position (Rest et al. 1999, p. 38).

Postconventional schema

The postconventional schema is supra-conventional phenomenon. It is the awareness about rights and duties that are not absolute per se, but originate from sharable ideals in society. Like maintaining norms schema, the postventional schema does not consider these ideals to be beyond any kind of scrutiny, instead, these ideals are more open to debate, argumentation and revision according to the wishes and needs of the community sharing these ideals (p. 41).

The Four-Component Model by James Rest

According to Rest et al. (1999) psychology of morality is not limited to moral judgment only. There are variety of other approaches, points of view, and constructs that need emphasis as well in order to reach at more elaborative framework. Rest, identified four components that encompass full domain of moral psychology and moral judgment being the one component among them. These four components can be considered as different psychological processes that in combination give rise to moral behavior (p. 100-101)

The four components include:

1. *Moral Sensitivity*: this is the sensitivity to detect the existence of some moral problem, an empathic understanding that how certain actions can affect others.

2. *Moral Judgment*: is the ability to judge which actions are appropriate when solving some moral issue.
3. *Moral Motivation*: it is the conative aspect, moral sensitivity and judgment is realized when an individual takes the initiative by following some proper course of action and shows commitment to and responsibility for one's actions.
4. *Moral Character*: it is strength of personality, courage to initiate moral action, and showing perseverance by overcoming obstacles coming in the way of appropriate actions (p. 101).

The Domain Approach

Rest et al. (1999, p. 148) describe two different domain approaches discussed by cognitive psychologists that are termed as hard and soft domain approaches. The hard domain approach emphasizes separation of different psychological systems working independently or in collaboration. Neurological studies tell that brain is composed of many different parts that are specialized for different mental processes so mind is also not a single organ but a system of interrelated but separate systems. That is the reason that a person can learn and perform multiple tasks so quickly, for example driving a car, while talking on mobile phone with ease because the load is divided onto different psychological systems (e.g. systems related to muscular coordination, perception of movement, use of semantic information etc.). On the other hand there is a soft domain approach that does not talk about separate psychological systems; instead this approach emphasizes presence of the networks of associated schemas. Rest et al. describe this approach as “the notion of soft domains only entails that there are distinguishable parts of our knowledge structure, and that different parts of this structure are activated to perform some function whereas other parts of the structure are not activated. In contrast, note that the hard domains notion entails the stronger assumption that there are separate hard-wired mechanisms

for information processing, involving different parts of the brain: that the modules are preprogrammed by evolution and genetically transmitted” (p. 149).

Implications of domain approach in moral psychology

In moral psychology Turiel (Turiel and Davidson, 1986, cited in Rest et al. 1999) made an argument in favor of hard domain approach and made a distinction between social experience and the developmental sequence within a moral domain (p. 152). He viewed that conventional and postconventional stages were not sequential but were separate domains and conceived morality as separate from social conventions. Social conventions were localized agreements of people belonging to certain culture on what or what was not an appropriate behavior in a particular situation; Turiel thought that the conventional behaviors were separable from moral domain because those were social agreements and did not have some universal value. On the other hand, his conception of moral domains was somewhat like the concept of ‘natural duties’ which Rawls described as “natural duties are those acts of direct help or of avoiding harm to another person that anyone in any society would empathically see as a duty, regardless of cultural teachings” (Rawls, 1971, cited in Rest et al. p. 156), for example helping a person severely injured in an accident could be considered as moral duty that was felt by almost any person irrespective of the culture or society he/she belonged.

Evidence of soft domains was also discussed by some psychologists, for example Rest et al. cited a study by Smetana who worked on women’s thinking about abortion, determining whether abortion was viewed as moral issue or a personal issue. She noted that women who considered it be a moral issue, their thinking was more correlated to Kohlberg’s moral judgment scores while thinking of women who considered abortion to be personal issue was unrelated to Kohlberg’s moral judgment scores. Rest et al. argued that this study provided an evidence for the

presence of soft domain, that social cognition was subdivided into moral and personal schemas and person's judgment of the situation was determined much by what schema was already activated, the single event could activate different schemas in different individuals without the necessary presence of separate hard domains (Rest et al. p. 159).

Dual Aspect Model of Georg Lind

Georg Lind (2008) in his article describes three approaches toward morality; morality as rule-conformity, morality as good/bad intention, and morality as competence. The first approach discusses morality as a system of commands given by some external authority, for example religious morality in the form of commands ordained by God, or any preset social standards that are considered obligatory for people to follow. In this type of moral approach, any behavior is considered to be immoral that transgresses these boundaries. The other approach takes into account only intentions rather than behavior as indication of someone being morally good or bad; as behavior is influenced by so many situational variables it does not sufficiently guarantee that the same result will follow what a person intends to see, so instead of behavioral output, intention or moral attitude has real a worth when deciding about some person being moral or immoral.

According to Lind (1985), dominant ideology in psychology of morality mostly remained to be behavioristic i.e. studying human behavior externally with the perspective of its degree of compliance to sociocultural norms. Lind points out that the main weakness of these approaches is in their emphasis on need of some external authority to induce morals and taking morality belonging to attitudinal domain only with more emphasis on moral intentions that need not be congruent or incongruent with the actual behavior; another major drawback of these approaches is their considering morality to be totally separate from human logical and intellectual faculties. Lind (2000; 2006; 2008) criticizes both of these approaches and instead provides a dual aspect model of morality based on cognitive developmental research that takes into account both

attitudinal/affective and cognitive aspects as integral parts of morality. For Lind morality is not composed of only one dimension as already discussed in rule obeying or intentional approaches neither it is a multicomponential system discussed by Rest et al. (1999), instead his dual aspect theory emphasizes two interrelated affective and cognitive dimensions that are not separate domains but are qualitatively distinct aspects of the same whole; he named this conceptualizing as a new construct of *moral judgment competence*. Lind's work is rooted in Piagetian (see Lind, 2006) and Kohlbergian tradition and he gives credit to Kohlberg for first time providing a clear conceptualization of moral judgment competence by defining it as "the capacity to make decision and judgments which are moral (i.e. based on internal moral principles) and to act in accordance with such judgments" (Kohlberg, 1964, as cited in, Lind, 2008). This definition is very broad gauged as it covers all three cognitive, affective and behavioral dimensions as (i) it introduces the affective dimension of morality based on *one's own* internal moral principles, so in a way it rejects any outside compulsion to obeying some authority, or consideration of established norms or traditions; (ii) cognitive aspect is defined as a capacity to make judgment or decisions, so the inclusion of that aspect reduces the importance of unidimensional approaches described above that only take into consideration rule conformity or good intentions to be sufficient conditions of good moral conduct, and a new dimension, in the form of competence or ability is introduced, that emphasizes some kind of rules of thinking applied to one's moral principles, and (iii) it introduces behavioral aspect as well that takes into account person's actions in accordance with his/her judgments (Lind, 2008).

For Lind (1985) problem in conceptualization of moral thinking emerges from the confusion of separating content from structure. Cognitive-developmental psychology enlightened the field of moral psychology with its emphasis on structural aspects of morality rather than focusing only on the attitudinal dimensions but many cognitive developmental psychologists

remained inconsistent either in their definitions of or methodology to measure content and structure. Most of the psychologists used methods to measure structural aspects independently of content aspects because they considered cognitive structure as pure formal structures lacking any content. Lind clarifies that confusion as:

The organization of person's moral judgment behavior is not characterized solely by the moral norms it serves (or fails to serve), which we may call the affective content of behavior, nor solely by the formal properties of the individual reasoning, i.e., the consistency or structure of reasoning. It is only by referring to content that one speaks meaningfully of behavioral consistency. There is no consistency of behavior as such; it is always consistency in relation to a criterion of principle. In other words consistency is a bivalent relations concept (Lind, 1985, p. 22)

In other words there can be no *pure* reasoning independent of some content, and reasoning structures are always meaningfully associated around some affect/purpose/principle. Lind (2000; 2008) also emphasizes that in order to know on which principles a person bases his reasoning and how he/she organizes one's thoughts around it, a holistic measurement procedure is required that involves presenting a moral situation to a person from which his/her structural and content aspects can be inferred. Lind (2008) provides 8 criteria for any good measurement instrument to encompass moral behavior: (1) as described earlier, for Lind cognitive and affective aspects are inseparable, moral growth takes place simultaneously affectively and cognitively. It is not possible to measure person's cognitive ability without any reference to his/her moral ideals, so any measurement instrument that gauges moral judgment, need to measure both aspects. (2) as moral judgment tests are not general cognitive ability tests; measurement need to be done in genuine moral situations; that's why these tests need to provide a moral task, a dilemma condition that need to be solved by the person taking the test, (3) as Lind takes moral judgment competence as a cognitive ability, so like other ability tests (like intelligence and aptitude), a person should also not be able on moral judgment tests to simulate their scores upward, (4) it is possible for moral judgment to increase or decrease if someone

experiences conducive or non-conducive conditions. So any measurement of moral judgment should show these true changes; (5) any such measurements should not impose any moral principles on the subject or a priori considerations, instead rely on subject's own moral principles in order to be least biased; (6) qualitatively different moral stances should show less correlations with each other, bigger the difference, lesser the correlation and lesser the difference, bigger the correlation; (7) both cognitive and affective aspects need to be parallel with more cognitively mature individuals showing more preference for postconventional of moral principles than less mature subjects; (8) moral judgment can truly be assessed when one's decision in a moral situation is challenged by a reverse decision in the same moral situation. Most of the time it is easy for people to endorse their own decisions by presenting favorable arguments for the justification of their actions, but the true competence can be assessed only when one's personal decision is challenged by counter decision and counter arguments. Cognitive moral maturity can be assessed by looking at how a person makes balanced judgments in both of the situations favoring or disfavoring his decisions.

Measuring Moral Judgment: Cognitive and Affective aspects

For the measurement of both cognitive and affective aspects of morality, Lind (1978) constructed a measure called Moral Judgment Test (MJT) which he differentiated from other methods devised to measure moral judgment. Lind (1989) criticized the method of Moral Judgment Interview introduced by Kohlberg and his colleagues (see Colby et al., 1987), on the basis of confusion in scoring methodology and some lack of theoretical considerations. Kohlberg and colleagues tried to follow classical testing theory and used classical test criteria of internal consistency and reliability; for Lind this approach was inappropriate when one was doing a 'hermeneutic analysis' in which person's whole response pattern needed to be taken into account instead of discarding seemingly inconsistent responses (Lind, 1989, p. 9-10). For Lind, another

aspect that was ignored in moral judgment interview was its lack of probing to identify person's ability to apply his/her moral principles to different moral tasks. Usually rationalizing one's stand and producing arguments in favor of one's moral position is easier than making a stable judgment when confronted with opposite solution to the problem. Lind (p. 12) suggested that this type of probing that truly challenged one's moral decision lacked in the method used by Kohlberg and colleagues. Lind (1995; 2008) also criticized James Rest's Defining Issues Test (DIT) which was a short and easy to administer paper and pencil test made on Kohlberg's theoretical conception. For Lind, DIT which was said to measure moral judgment appeared to be measuring only the affective aspect in the form of moral preferences. According to cognitive developmental paradigm, moral judgment is a competence or ability and that is why cannot be simulated upward, so a true measure of moral judgment also cannot be faked upward when a person is told to do so. In a study by Emler et al. (1983), an upward simulation of scores was observed when participants were asked to take perspectives different than their own and judge items on DIT. Lind (1996) interprets this simulation as indicating that DIT was not a competence test and instead a test measuring moral attitudes or preferences. Through Moral Judgment Test (1978), Lind tried to overcome and supplement these weaknesses by introducing equivalent contrary arguments that one also has to rate along with arguments favoring one's decision on moral dilemmas. Lind (1980) introduced MJT as an experimental questionnaire, which is a new form of questionnaire that does not ~~strictly~~ follow classical psychometric criteria of reliability. For Lind objective methods that set external criterion on which some response consistency is judged and that consider any deviating response from that standard as irrelevant or attribute this deviance to *measurement error* are not good operationalizations of the theory. Such methods usually do not consider intra-individual variation and judge inter-individual response consistency as an evidence of test's reliability. These methods cannot be applied especially to cognitive

developmental framework that considers development of an individual as a unified phenomenon with increasing differentiation and integration of structure (cognition) and content (affect). An individual's response inconsistency cannot be solely attributed to measurement error but can be a true inconsistency in the individual him/herself and that is why it needs to be integrated in a measurement instrument. MJT is measure that takes into account this response inconsistency as a genuine aspect of the individual. Based on Kohlberg's six moral orientations, MJT provides a 2x2x6 multivariate design in which subjects have to solve a moral dilemma and have to respond to arguments derived from Kohlbergian moral orientations, the arguments are bi-directional, those given in favor of subject's decision and those given contrary to subject's decision. Response consistency is judged through one's overall pattern of responses to see what considerations are given more importance while responding to the arguments. Mature individual usually take into account moral quality of arguments and show consistency in that aspect while less competent individuals usually go for other considerations like responding positively to arguments favoring one's decision and negatively to arguments contrary to one's decisions, or inability to identify qualitative differences in different arguments etc. (more explanation about MJT is given in the methodology section).

Religiosity and Moral Judgment

Religion is a complex construct that has been differently conceived by different theologian, historians, and social scientists. Karen Armstrong (2009) conceives modern day religion as utterly alien from what religion truly intended to be. She distinguished between *mythos* and *logos* as two epistemologically distinct domains that were practiced in pre-modern cultures. Mythos, being the mythic side of reality, did not consider metaphysical realities as concretely provable facts. Religion belonged to this region of mystery and the adherents of faiths did not rationally analyze all what they got as religious truths. Religion was meant to be a living

experience that provided pleasure in mystery, obscurity, and transcendence. Religious myths were never taken as literal descriptions of events but these were accounted for their existential meaning. Religion belonged to emotional and aesthetic sides of humanity that introduced a sense of self-transcendence and awe to human existence. Religion as a “belief” was a new invention of post Renaissance rational mind, which was a domain belonging to what Greeks called *logos*, rational faculties of mind needed for the concrete world in order to understand it and get control over its resources. Modern mind mixed this rational sense with mythical sense so it mixed religion with rationality and science. Religion what was a living experience for an ancient man now meant an intellectual ‘belief’ on certain metaphysical propositions. This new conception of religion that of modern industrial age was completely devoid of mythological side and considered mythological and symbolic accounts in scriptures as literal accounts of events that were ultimately refutable as those were so full of contradictions that no rational and sane man could have accepted them on face value. For Armstrong, all this conflict gave rise to either dogmatism and fundamentalism on the one side or agnosticism and atheism on the other side. Modern day religion though serves the purpose for many by bringing some higher meaning in life, yet it has lost its pristine form and is just centuries old repetition of others’ interpretations.

Religion and religiosity are not unidimensional constructs and can be differentiated on several specifications. Gunn (2003) has categorized three kinds of religions: (i) *religion as a belief*, (ii) *religion as identity*, and (iii) *religion as a way of life*. Religions as a belief consists of basic belief system of people about certain metaphysical aspects like God, truth, basic doctrines of faith. These beliefs may include, Muslim faith of Prophet Muhammad to be the last prophet, Christiane’s belief of Jesus being Son of God, belief in life after death or Day of Judgment, Hindu or Buddhist belief of Karma, and cycles of birth and rebirth etc. People who do not agree with such creeds in those cultures where these creeds are dominant are usually classified as

heretics, blasphemers or apostates. Religion as identity is the ethnic and cultural side of the belief that demands group conformity and cohesion. This is more related to identity by birth instead of specific belief system. This identity of a group makes it distinct from other ideological groups, this form of religion usually requires superficial following of certain religious acts as sufficient condition for the inclusion within the group, in depth understanding of religious doctrines and their following is not a primary thing. The third category that is religion as a way of life is an applied aspect of religious teachings and is more concerned with religious practices, rituals, and following religious traditions.

As the center of any religion is man and its relationship with god(s), so historically religion and human morality cannot be separated. Moral teachings have always remained a dominant part of the world's most of the important religions. It can be said that these teachings in more imperative and legalistic sense crystalized in world's three monotheistic faiths Judaism, Christianity, and Islam. According to Voert, Felling and Peters (1994) abandoning religion and increasing secularization leads to more permissive morality that is more open to egoistic behaviors like tax cheating, selling goods without disclosing problems, and dishonesty in financial matters. In their study in Netherlands they determined the effect of Christian belief, church involvement, denomination, and non-religious background on self-interest morality. Results especially of Church members showed more absolutist, principled and strict moral stance. Overall results indicated that decline of religion led to more permissive attitude for self-interest morality.

Contrary to common sense and findings like Voert et al. (1994) the perspective of cognitive developmentalists about institutional religions looks to be more negative in the development of moral reasoning. Kohlberg thought his stage theory of moral development to be universally valid and claimed that religious teachings and religious beliefs had no effect on the

development of moral cognitions (Richards and Davison, 1992). Richards (1988, cited in Richards and Davison, 1992) found religious biasness in Kohlbergian approach to morality especially his preference for postconventional thought over conventional form of reasoning. Richards and Davison (1992) identified similar kind of problem with James Rest's Defining Issues Test (DIT), as their study found it to be biased toward conventional form of reasoning used by conservative religious groups - their results showed large differential item functioning for stage 4 items than any other items. Contrary to Kohlberg's assumption, the literature suggests that religiosity is somehow related to moral judgment as moral conservative religious people are found to get low P-scores (which show the extent of use of postconventional reasoning) on DIT than other groups. These findings are interpreted differently by James Rest as he opines that conservatively religious people though, have a capacity to reason at stages 5 and 6, deliberately prefer conventional thought -which he thinks to be less developed form of reasoning than postconventional reasoning- as they use religious criteria instead of personal criteria to judge some moral issues. Richards on the other hand criticized this interpretation of Rest and suggested cultural and religious biasness in Kohlberg's and Rest's approaches. He thinks that Kohlberg gave more importance to human conception of morality over divine ordinances, in this way he made no distinction between divine law and human law. This line of thinking emerges when one does not consider divine to be real and rely on one's own personal abstract notions of morality, on the opposite, the conservative religious people consider divine to be really existent and a real moral guide. Also for Richards the conservative religious people do not consider their form of conventional reasoning to be lower than postconventional reasoning, instead they prefer it because they consider it to be more consonant with divine guidance (for more elaboration see Richards and Davison, 1992).

Narvaez et al. (1999) also found that people high on religious fundamentalism got higher stage 4 scores on DIT. Significant interaction of religious thinking and political orientation was observed for moral judgment as a dependent variable. According to their interpretation moral judgment in combination with fundamentalism creates an ideological complex called ‘orthodoxy’ which is ripened at the time when people are acquiring maintaining norms schema. If a person at stage 4 is also being introduced to fundamentalist ideology or belongs to that culture, his/her moral point of view becomes religious instead of secular and this orthodoxy leads to generalization of religious doctrines and divine authority to civil and political authority (Narvaez et al. 1999; Rest et al. 1999).

Some of these findings put us in doubt about whether cognitive development theories are biased toward more conservative groups (as claimed by Richards and Davison, 1992) or there is some problem with conservative groups themselves (as interpreted by Narvaez et al. 1999). Another finding by Gross (1999) suggested both claims untenable as both liberal and conservative activists from United States and Israel showed no significant difference of moral competences on Lind’s MJT when education and income were controlled. Though when these variables were not controlled, the liberal groups showed higher competence than conservative groups in both USA and Israel.

Lind (1986) tackles criticism about the biasness of cognitive developmental theories against conservative or religious groups differently than Rest. He provides evidence from the findings of Moral Judgment Test that contradicts the claims made by the critics. A longitudinal study in five West and East European countries including West Germany, Austria, Netherlands, Poland, and Yugoslavia showed some consistent patterns. East and West European countries are considered to be different and contrasting ideological blocks that have many sociocultural differences and one can expect to get significant differences on measures of moral values and

competences. Contrary to the expectations, this study showed no difference in moral preferences in people from these five countries on MJT. A consistent pattern was observed in all five cultures with more preference for postconventional arguments and least preference for preconventional moral choices. On the other hand on the competence side the result showed marked differences between western and eastern European countries with students from West Germany and Austria showing highest moral competence and Polish and Yugoslavian students showing lower judgment competence. Preference of moral values in a predicted order had also become the criterion of validation for MJT. The test is yet validated in 39 languages in number of countries including religious countries like Pakistan (Wahab, 2011), and Iran (Saeidi-Soudabeh, 2004) and communist countries like China (Zhao, 2003) with same pattern of moral preferences that further provides support for the universality claim of Kohlbergian stages.

Despite of getting similarities in moral preferences, the competence scores on MJT cannot be completely dissociated from ideological or religious affiliations. A study by Ishida (2011) comparing DIT and MJT on the basis of ideological affiliation showed clear contrasting patterns for idealist and relativist groups, MJT competence scores were found to be negatively correlated with idealistic orientation especially the absolutists getting the lowest c-scores in comparison to subjectivist relativists. Lind has also discussed this relationship by introducing the phenomenon of moral segmentation. Schillinger-Agati and Lind (2003) in a comparative study of German and Brazilian university students found a high moral segmentation in the Brazilian sample; moral segmentation refers to a phenomenon when there is a discrepancy in moral judgment competence scores between two of dilemmas. In Brazilian sample, scores on euthanasia dilemma were very much lower than on worker's dilemma. Another study reported by Lind (2000c) discussed phenomenon of moral segmentation in students from Germany, Italy and Mexico. Mexican sample being belonging to the culture dominated by Roman Catholicism

showed higher segmentation (showing very low moral competence on euthanasia dilemma than workers' dilemma) in comparison to Italian and German samples. According to Lind's (2000c) interpretation "Religiously oriented subjects suppress their autonomous moral judgment on dilemma contents, on which the church takes a strong stance. The segmentation phenomenon seems to indicate that internalized rules (super-ego) rather than external social pressure constrain the use of autonomous moral judgment."

Bataglia et al. (2002) conducted a study in Brazil to observe the level of moral judgment competence among groups of people highly committed to religion and those who had no commitment at all to religion. There was no significant moral segmentation observed in both of the groups though segmentation within groups was noted as both of the groups showed more competence for workers' dilemma than euthanasia dilemma. This finding was interpreted by the authors as showing the influence of cultural instead of religious factors. Cultures that are stronger on orthodoxy or conservative dimension usually tend to show this trend more in comparison to people belonging to cultures with more liberal orientations. Authors also found people who said they were 'little religious' showed slightly higher moral judgment competence than groups who reported being 'highly religious' or 'not at all religious.' According to authors people who showed no extreme tilt to any direction actually had more flexibility of thought that contributed in their getting higher scores in moral judgment competence. Sapp and Jones (1986) also found such trend by using DIT. They compared Batson's three dimensions of religiosity, means (quite like Allport's extrinsic religiosity dimension), end (like Allport's intrinsic dimension) and quest dimension that is defined as an open-minded unsettled approach to religious questions. Only the quest dimension found to be significantly positively related to moral judgment.

In recent literature (Lupu, 2009; Schillinger and Lind, 2003; Saeidi, 2011) moral judgment has been specifically differentiated on the basis of two types of religious orientations,

dogmatic and personal or indecisive. Lupu (2009) differentiated between two types of religiosity in a study done on university students in Romania; (i) *dogmatic religiosity* that is more conservative church oriented phenomenon, and (ii) *personal religiosity* which is non-denominational autonomous approach toward spiritual matters. Results confirmed that students with more dogmatic orientations exhibited less moral judgment competence on MJT in comparison to subjects getting higher scores on personal religiosity dimension even personal religiosity was found to be having moderately positive effect on moral judgment. The study also found the interaction of educational environment and type of religiosity. Positive effect of role-taking and guided reflection opportunities was observed only on non-dogmatic religious students, while in dogmatic religious students no increase in moral judgment competence was observed despite many opportunities of role-taking and guided reflection, even moral regression was observed in high dogmatic students who had also low role-taking and guided reflection opportunities. As far as moral orientations or principles were concerned, no difference was observed in dogmatic and non-dogmatic groups, both of the groups showed higher preference for postconventional moral principles than preconventional or conventional values.

Similar finding had been reported by Saeidi-Parvaneh (2011) in a study done on university students of Iran. No significant differences were noted among groups of religiously non-dogmatic, dogmatic, and highly dogmatic students in preferences of six moral orientations on MJT. In the same study moral judgment was observed to be inhibited by high dogmatic religiosity while non-dogmatic students showed a slight increase in their moral competence with passage of their studies in universities. High quality of education in the form of more responsibility taking and guided reflection opportunities was observed to have positive effect on non-dogmatic and dogmatic students while high dogmatic religiosity seemed to neutralize if not decrease the level of moral judgment when high quality education was provided. In highly

dogmatic students with poor quality of education, a very significant decline in moral judgment competence was observed. The study also showed presence of a high moral segmentation in students especially highly dogmatic students showed the highest segmentation among three religious groups. Even religious context was observed to be having an impact on moral judgment of students. Students from more religious environment showed greater decline in moral judgment with course of their studies in comparison to students from less religious environment.

Education and Moral Judgment: Effect of Role-Taking and Guided Reflection Opportunities

As described earlier (Lind, 2008), moral development in the past was not considered to be a teachable phenomenon in a cognitive sense. Morality was generally considered as consisting of values and principles and the only suitable method to teaching morality was thought to be instilling these moral values through direct teaching techniques (Lind, 2000b). For Lind simple indoctrination may lead to more negativity in behavior rather than producing a morally appropriate behavior because these values can put extra pressure on an individual and irrational demand to do certain acts that are practically not possible to perform. On the other hand the cognitive developmental psychologists like Piaget and Kohlberg considered moral development to be a cognitive phenomenon and like other cognitive phenomena – e.g. language and general logical abilities – they argued that moral thought also developed in a sequential order from simple to complex. On the basis of this view cognitive developmentalists did not consider simple indoctrination with values to be an appropriate teaching method and instead they proposed those methods as more suitable that challenged persons' rational abilities or in a Piagetian sense created *disequilibrium* or moral conflict (Reiman, 1999). Only practical methods in which participants were actively involved could serve the purpose instead of direct teaching where participants' role was only as passive receivers of the information. According to Mergler,

Spencer and Patton (2008), People could have meaningful learning only when they have an opportunity to actively interact with educational stimuli. Information does not have meaning until it becomes part of one's experience and any piece of information can become part of experience when a learner has an opportunity to actively attend, manipulate, organize and reject that information. For both, Piaget and Kohlberg, the opportunities of active role taking and responsible decision making were very important for the development of moral competencies as those were necessary conditions to create a required moral conflict that a person had to solve for him or herself (Lind, 2000b). Reiman (1999) derived some ideas from Sprinthall and Thies-Sprinthall and defined role-taking as "a complex new helping experience in a real world context such as teaching for the first time, mentoring, counseling, tutoring, collaborative inquiry, or a community internship that is voluntarily assumed by a person. The roletaking (action) precedes and shapes the intellectual consciousness (reflection) that grows out of it" (p. 603). Lind (2000b) considers mere role-taking opportunities as insufficient for mature moral development due to two reasons; (i) *optimal discrepancy* and (ii) *power abuse*. If the difference between person's moral judgment competence and difficulty of a moral task is too small or too large, in both of the conditions, a person will not be able to solve a moral problem as either he/she will feel no conflict or such a demanding conflict that he/she will not be able to cope with it at all. On the other hand if people reach higher social status without acquiring an adequate level of moral competence, the role-taking opportunities at that time may not prove to be beneficial. In order to avoid that Lind suggested in addition to role-taking opportunities, a need for an adequate amount of guidance from other competent people as a prerequisite to understanding difficulty of moral tasks in order to deal with moral problems, and also appropriate feedback about the performance of the role and about the decision choices one makes. These guided reflection opportunities would contribute to lessen the role confusion and create optimal discrepancy to solve moral

problems. Lind's conception of guided reflection opportunities can be understood by Reiman's (1999) explanation, for Reiman reflective practice can be defined as "one that describes a process of problem solving, reconstruction of meaning, and subsequent reflective judgments while persons are engaged in significant new activity"(p. 598), and borrowing from Vygotsky he elaborated guided reflection as "the word guided, in guided reflection, implies active consideration by more capable others or co-learners of a person's ZPD or current preferred ways of solving complex problem"(p. 600), where ZPD or zone of proximal development is "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, cited in Reiman, 1999, p. 600). This means that guided reflection is not a one-time process but a constant endeavor on part of a learner who whenever facing new demands need to have cognitive strategies available to deal with such problems on consistent bases and it also means that whenever needed more capable people (teachers, instructors, mentors) or colleagues at the similar level of development are readily available for help. Reiman draws the theoretical support mainly from ideas of Piaget, Vygotsky, and Mead for his description of the nature of guided reflection and role-taking strategies for teacher education programs. From Piaget, Reiman derived the idea of equilibration, which is construction of meaning through structuring cognitions, these cognitive structures are disturbed when a person encounters some new problems and faces new situations resulting in a state of disequilibrium, that in turn forces and individual to achieve a state of equilibrium again. The process of role-taking can put a person in a state of disequilibrium that can be reduced when a person receives guided reflection opportunities.

It is expected that institutes of higher learning i.e. universities and colleges could provide such opportunities where students can engage in variety of activities and receive guidance from

their teacher and peers to develop that qualities that help them to grow ethically and become responsible not only in their professions but in the whole life domain. Pascarella and Terenzini (2005, cited in Weidman, 2006) highlighted two broad frameworks that contributed in producing a change in college students; these frameworks include developmental theories and college impact models. Developmental theories emphasize intra-individual change and growth patterns while college impact models focus more on environmental and inter-individual factors influencing student outcome. These patterns include, *between-college effects* i.e. structural and organizational characteristics of the institutes affecting students like size, resources, faculty selection, control, and *within-college effects*, i.e. students' experiences within institutional settings that include academic, social and political climate of the institutes. Students' personal factors like age, ethnicity, gender, socioeconomic status etc. can also be important contributors in the academic outcome and these also form part of broader college impact model. Pascarella and Terenzini (2005, cited in Terenzini, Ro and Yin, 2010), criticized between-college effects as poor predictors of student outcome when students' characteristics were controlled as most of the researchers only picked few predefined institutional characteristics as predictor variables that in fact contributed less than thought. Instead the authors emphasized the importance of within-effects having more impact on student outcome. Those aspects that focused more on direct experience of students like faculty involvement in setting curricula for students, their instructional practices, and student centered teaching and assessment practices were found to be more important in assessing students' level of engagement in different activities both within and outside class instead of simply *external* institutional structural approaches. In their study on engineering students Terenzini, Ro and Yin (2010) assessed the influence of conventional institutional descriptors (institutional size, type of control, highest-degree awarded, selectivity, and wealth), and internal organizational functions (like program emphasis on professional skill,

program emphases on design skills, faculty perceptions of value of curriculum enhancement, faculty members' active learning pedagogy) on variety of student experiences (undergraduate research, internship, non-engineering clubs, student-centered teaching, and active collaborative learning). Their findings suggested that conventional structural descriptors had less influence on students' experiences in comparison to internal organizational features that were more closely related to student experiences that had direct impact on learning outcomes.

Schillinger-Agati (2006), in her dissertation work on Brazilian and German university students, found significant effect of learning environment on students' moral judgment competence. Merely years of study found to be having no effect on moral judgment, instead it was quality of education that affected the most. Students with more Role-taking and guided reflection opportunities in universities found to be having the most mature levels of moral judgment competence and also significant gains of moral judgment scores with the duration of their studies. In students belonging to low quality learning environment, moral stagnation even moral regression was observed with duration of their studies in universities. Observation of this phenomenon weakens Kohlberg's claim of invariant forward development of moral thought as a maturational phenomenon, instead this development seemed to be associated with quality of learning environment, which was also confirmed when no effect of age or duration of study was observed while the variable learning environment was controlled. Schillinger-Agati also found support for cognitive-affective parallelism and hierarchical preference assumptions given by Lind (1985; 2008), higher stages (i.e. postconventional) were generally preferred more than lower stages (i.e. preconventional), though subtle variations in exact preference order were noticed in both Brazilian and German samples. Brazilian students tended to accept stage 3 while German students were observed to reject stage 3 arguments. Brazilian students preferred stage 3 over stage 4 while German students preferred stage 5 over stage 6. The study also found no

gender differences in both cognitive and affective aspects of morality. Males and females both were found to prefer postconventional moral arguments over preconventional arguments and no difference in moral judgment competence was observed as well.

Lupu's (2009) findings also showed that only quality of education with more role-taking and guided reflection opportunities and not mere years of education had a positive effect on moral judgment competence. Lack of opportunities was found to be leading to moral regression. Age and gender were found to have no effect on moral judgment.

A study by Saeidi-Parvaneh (2011) found overall no effect of Iranian higher education on students' moral judgment competence and even slight regression in moral judgment was observed. In students having quality education in the form of more role-taking and guided reflection opportunities showed slight increase in moral judgment during years of their education while students belonging to lower educational quality showed decline in moral judgment. Rose (2012) in a study in Nigeria also found improvement in moral judgment on DIT2 measure, in those undergraduate students who had the opportunity to contact their professors outside their classes.

The effect of years of study was observed by Rest and Thoma (1985) who conducted a 6 year longitudinal study with DIT as measure of moral judgment development. The students were divided into high and low education groups on the basis of years of study. High education groups showed more increase in moral judgment in comparison to low education group. Their findings suggested greater impact of higher education on moral judgment as college education appeared to be better predictor of moral judgment than school education but this need to keep in mind that this finding has come from DIT that is not a competence test and measures only the frequency and preference of using postconventional reasoning.

Religiosity and Education in Pakistan

Religion and education though appear to be quite different issues are quite difficult to separate in Pakistan. Pakistan is predominantly a Sunni Muslim country with Muslim population of 95% including 75% Sunni and 20% Shia population (CIA, World Fact Book). Since its inception, government of Pakistan made religion an integral part of several educational policies to defend Pakistan's ideological basis as it was an ideologically shaped country that earned independence from United India in the name of Islamic identity separate from Hindu majority of subcontinent. It was clear from the beginning that Pakistan would be a theocratic state though ironically the founding fathers of Pakistan especially Muhammad Ali Jinnah (entitled as Quaid-e-Azam or Great Leader) who became the first Governor General of Pakistan and also the president of the first Constituent Assembly had some other thoughts as well. Jinnah in his address to the Constituent Assembly on August 11, 1947 declared future Pakistan to be a secular, democratic and progressive state. Some controversial briefs of his speech (cited in Khan, 2001) include:

You are free; you are free to go to your temples, you are free to go to your mosques or to any other place or worship in this State of Pakistan. You may belong to any religion or caste or creed that has nothing to do with the business of the State (Jinnah's address to first constituent assembly, august 11, 1947, as cited in, Khan, 2001).

Now I think we should keep that in front of us as our ideal and you will find that in course of time Hindus would cease to be Hindus and Muslims would cease to be Muslims, not in the religious sense, because that is the personal faith of each individual, but in the political sense as citizens of the State (Source: Khan, 2001).

At another place Jinnah had already remarked.

The new state would be a modern democratic state with sovereignty resting in the people and the members of the new nation having equal rights of citizenship regardless of their religion, caste, or creed (Jinnah's interview to Reuter's correspondent, 1946, as cited in Khan, 2001)

Since its inception Pakistan's ideological base became a confusing question. Contrary to the aspirations of Jinnah, the first constituent assembly of Pakistan gave primary importance to religion in its Objective Resolution of 1949, yet, side by side, the democratic ideals were also patched with the constitution and, in a way, the foundation set by the constituent assembly became an amalgam of religion and secular democracy.

Some important guidelines in the Objective Resolution later became part of the Preamble of the Constitution of Pakistan were as follows:

Whereas sovereignty over the entire Universe belongs to Almighty Allah alone and the authority to be exercised by the people of Pakistan within the limits prescribed by Him is a sacred trust

Wherein the State shall exercise its powers and authority through the chosen representatives of the people

Wherein the principles of democracy, freedom, equality, tolerance and social justice, as enunciated by Islam, shall be fully observed;

Wherein the Muslims shall be enabled to order their lives in the individual and collective spheres in accordance with the teachings and requirements of Islam as set out in the Holy Quran and Sunnah

These ideological guidelines with emphasis on Islamic values and teachings later became part of educational policies as well. It became State's duty to inculcate in citizens, Islamic values and practices through educational curriculum in addition to developing in them modern scientific and technical skills.

The first educational conference was held on November 27, 1947 in which the foundations for the future educational policies were established:

1. It is decided that Pakistan educational system will be isolated with Islamic theory of life which reflects the qualities of unity, hurriedly and justice.
2. It is decided that in schools for Muslim students religious education will be compulsory. In the same way for Muslim students in colleges, attendance in religious education period will be necessary. The students of other religions will get the same benefits (Source: Faizi, Shakil and Akhtar, 2012)

From year 1969 to 2009 six education policies had been adopted by the government of Pakistan and one common theme among several others is educating people of Pakistan according to Islamic ideals, in order to produce in them historical identity and cognizance about the real reasons of getting separation from United India. These values are taught by the inclusion of Islamic studies as a compulsory subject from grade 1 to grade 14 and as an elective subject for higher grades and also inclusion of Pakistan studies with special reference to Islamic ideology with emphasis on two-nation theory (i.e. Muslims and Hindus were diametrically different nations in United India and partition was indispensable).

The latest educational policy (2009) has a whole chapter on Islamic education that describes policy orientation of the government about what need to be taught:

The Islamiyat Curriculum shall be divided into five main topics as under:

a. *Al-Quran Al Kareem.*

b. *Imaniyat and Ibadat.*

c. *Seerat-e-Tayyiba.*

d. *Ethics and Good Behaviour (towards others) – Haqooq-ul-Ibaad.*

e. *Prominent Personalities of Islam.*

- Islamic teachings shall be made the part of teacher training curricula and the curricula of other training institutions.
- It shall be ensured that textual and other learning materials do not contain anything repugnant to Islamic injunctions and controversial material against any sect or religious/ethnic minorities.

(Government of Pakistan, Ministry of Education, 2009, p. 24)

The consequences of such policies are shown in school and college curricula that are currently heavily influenced by Islamic themes. Despite of the fact that Islamic studies is made part of a curriculum, in other subjects like Urdu, English and Social studies Islamic references are given special place. There is special emphasis on Hindu-Muslim separation with derogatory tone and distorted facts about historical relations with Hindus and themes related to importance

of Jihad (Muslim holy war) are common (for detailed discussion on nature of curricula, see Nayyar & Saleem, 2002; Ahmed, 2004).

Presently, education in Pakistan is a neglected sector with one of the lowest allocations of total percentage of GDP to education (2%) in comparison to other countries of the same region like Bangladesh (2.6%), Nepal (3.2%), India (3.3%), Iran (5.2%), and Maldives (8.3%) (UNESCO, 2009). On Educational Development Index (EDI), Pakistan stands at 119th position out of 127 countries (UNESCO, 2011).

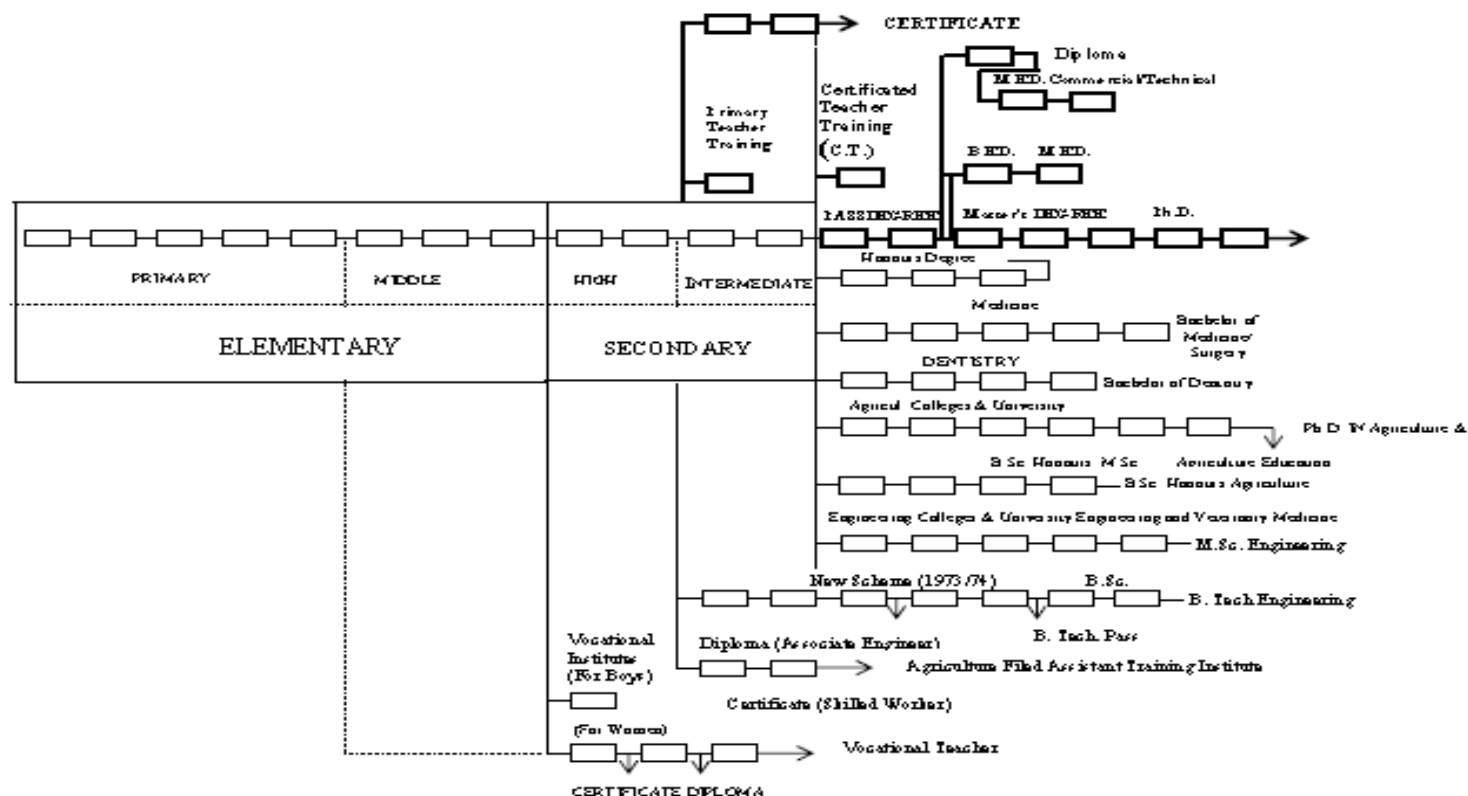
The system of education in Pakistan is very much polarized on the basis of quality, expenditure, language of instruction, and on other structural and organizational aspects. Basically four types of institutes disseminate knowledge that include schools for primary and secondary education (and some with higher secondary education as well). A student gets a Secondary Schools Certificate (also called matriculation) after getting success in the 10th grade and becomes eligible for admission in colleges depending upon percentage of marks. Colleges provide higher secondary to master level education – but not all colleges provide master level degrees, those colleges that provide up to bachelor level education are commonly called degree colleges, while colleges that provide up to master level of education are called postgraduate colleges. For admission in general public sector colleges, percentage of marks in matriculation is usually considered as sufficient criterion. After completing a two year Higher Secondary School certificate i.e. 12 years of education -also called Intermediate- a student can get admission either in bachelor level program of two years duration or Bachelor Honours program of four years duration in some of the colleges and universities. For admission in bachelor programs in public and private sector colleges, usually, no entrance test is required and percentage of marks in matriculation and Intermediate is a criterion of admission. For admission in four years Honours programs usually universities take entrance tests and also consider percentage of marks in

previous grades. For admission in technical institutes (e.g. Medical colleges, Engineering universities) entrance tests are very decisive. Colleges in Pakistan are not independent degree awarding institutes but are affiliated with different universities, so students who appear in exams from these colleges get the degrees from relevant affiliated universities. After completing two year bachelor degrees, students are eligible to apply for two year master programs -i.e. total of 16 years of education- in universities or postgraduate colleges. Universities in Pakistan are independent degree awarding institutes that provide bachelor and higher degrees (including degrees of Master, Master of Philosophy i.e. M.Phil. and Doctorate of Philosophy i.e. Ph.D.). Four years Honors degrees are considered to be equivalent to master degree level (i.e. 16 years of education) and after doing two years of masters or four years of Honors programs, students are eligible to get admission in either 18 years Master or M.Phil. programs. Ph.D. is the highest degree in which a student is eligible to get admission after completing 18 years of education. For specialized religious education, there are separate private institutes called Madaaris (singular Madrassah) that provide degrees from primary level up to master level. The curriculum of Madaaris is totally different from general schools and colleges. Majority of the Madaaris belong to Sunni sect (mostly Hanafi sub-sect) while some Madaaris belong to Shia sect, or, to non-sectarian groups.

Primary and higher education in Pakistan is mostly dealt by Federal and Provincial Education Departments under Federal and provincial ministries of education. The administrative powers are usually authorized to Provincial Secretariats of education. These education departments perform variety of functions some of that include, provision of primary, secondary and higher education, provision of technical education, curriculum formation and monitoring, provision of textbooks, and regulating boards of secondary and higher education (UNESCO, 2010/11).

STRUCTURE OF THE EDUCATION SYSTEM IN PAKISTAN (FORMAL ONLY)

Grade	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI
Age	5/6	6/7	7/8	8/9	9/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21



Note: Degree programme, which used to be of two years duration, is currently in transitional stage, initially switching over to four years duration for professional degrees of BBA, BCS, BSc, BIT etc.

Madaaris in Pakistan

Madaaris (singular: Madrassah, i.e. religious seminaries) in Pakistan have a long history. These are the primary institutes for the propagation and dispersion of Islamic knowledge and traditions among people of Pakistan. The history of madaaris in Pakistan traces back to the invasion of Arab Muslims in Indian subcontinent and the emergence of Islam especially in the thirteenth century when madaaris got the formal position as the institutes of higher learning (Farooq, 2010). From twelfth to fifteenth century, Fiqh (Islamic jurisprudence) was the primary subject of madaaris and from sixteenth to seventeenth century rational sciences (logic, metaphysics) also became part of madrassah curriculum. Modern day curriculum of madaaris is called Dars-e-Nizami, which is a modified form of a standard curriculum format set by Mullah Nizamuddin of Lucknow, India, in the second half of nineteenth century. In the subcontinent, madaaris seemed to shift their position from more liberal to more conservative after the end of Muslim rule in Indian subcontinent and the establishment of British colony in 1857. Before that period, madaaris mostly remained quite liberal in their teaching and side by side with religious text, taught many rational and secular subjects. After 1857, Muslims were put on the defensive and felt a threat for Muslim ideology and culture. Madaaris and ulama (religious scholars) became sole institutions for the preservation of Islamic identity. During that time period two Sunni Muslim sects -Deobandi and Brelvi- emerged, especially Deobandi sect focused more on conservation of Islamic values rejecting most of the rational sciences. Greater shift was observed when Madaaris started catering to the need of lower and economically poor classes of the society which was not the common practice during the period of Muslim rule (Farooq, 2010).

After partition of Indian subcontinent and with the establishment of two independent states -India and Pakistan- madaaris in Pakistan, continued to grow despite the primary focus of

the government shifted to the establishment of state based schools and colleges. As madrassah text was outdated, mostly consisting of material from medieval times and earlier, on several occasions government officials sat to bring change into madrassah curriculum in order to make it compatible with modern times (Farooq, 2010).

At the time of partition there were estimated 137 madaaris in Pakistan and year 2004/05 informal estimates tell the number even higher than 45000 (Shah, 2006). An estimate provided by Ministry of Religious Affairs on the number of registered madaaris was about 10,000 for the year 2002 (Rahman, 2004). There are five sect based madaaris functioning in Pakistan at present with their separate boards of education; among those, Deobandi, Brelvi and Ahle-Hadees are Sunni sub-sects, and Jamat-e-Islami is a more political instead of sectarian based organization. Among these madaaris, 7000 registered madaaris belong to Deobandi sect. Deobandi madrassah was established by Maulana Qasim Nanautwi and Molana Rashid Ahmed Gangohi at a town of Deoband (in modern day Utter Pradesh, India) in 1867, and continued to flourish till today. Most of Deobandi students are very orthodox Muslims, with emphasis on strict following of Sharia (Islamic Law) and avoidance of Biddat (innovation in religion). On the other hand, the Bareilvi school of thought established by Ahmed Raza Khan of Breilly (1856-1921) is considered to be more flexible in a sense that followers of this school believe in the intercession of saints between men and divine as opposed to Debandi belief (Rahman, 2004). Following are the sectarian divisions of madaaris in Pakistan with their respective boards.

Central Boards of Madrassas in Pakistan			
Name	Sub-Sect	Place	Date Established
Wafaq ul Madaris	Deobandi	Multan	1959
Tanzim ul Madaris	Barelvi	Lahore	1960

Wafaq ul Madaris (Shia) Pakistan	Shia	Lahore	1959
Wafq-ul-Madaris-al-Salafia	Ahl-i-Hadith	Faislabad	1955
Jama't-i-Islami	Rabta-tul-Madaris-al-Islamia	Lahore	1983
Source: (Rahman, 2004)			

In Pakistan, Madaaris mostly work as NGOs and get their finances through charity and zakat (Islamic concept of obligatory charity) provided by general people, through animal hide collections on the occasion of Eid, through support of land owners and traders, and through aid given by overseas Pakistanis. Though government provides some funds for improvement in madrassah education but its contribution is negligible in comparison to privately earned funds (Rahman, 2004; Shah, 2006).

The curriculum of Madaaris mainly consists of exegeses of Quran, Hadith (sayings of Prophet Muhammad) and Sunnah (conduct of the Prophet), Arabic literature, grammar and composition, Islamic Jurisprudence, Logic, Beliefs, and geography of Arabic Muslim countries² but with emphasis of one's own sect. Madaaris offer degrees from first grade to postgraduate levels. Government of Pakistan recognizes only the madrassa degree of Shahadat-ul-Alamiya as equivalent to university earned MA Arabic or MA Islamic Studies degree.

Before 9/11 incident, registration of madaaris was not compulsory and madaaris voluntarily registered under Societies Registration Act of 1860, but in 2005, government of General Pervaiz Musharraf amended the article and made madaaris registration compulsory. Madaaris were asked to declare their local and foreign funding sources, attempts were also made to bring madrassah reforms by introducing modern text. In 2010, madaaris agreed on the

inclusion of contemporary subjects and restraining from teaching or publishing any material that propagated militancy or sectarianism (Borchgrevink, 2011).

A study by Shah (2006) in the southern part of Punjab province showed that most of the madaaris had political affiliations, and whenever madrassah authorities found themselves unable to attract common people they started recruiting their own students as political activists. Usually madaaris were involved in street agitations in which madrassah students took the largest part. He also thought that poverty, religious fervor, and political power of madaaris attracted people to send their children there or become their affiliates. In Southern Punjab, mostly people affiliate with madaaris, to have a safeguard against local feudals. According to Rahman (2004) madaaris mostly cater for the needs of poor people, as most of them provide food and lodgings to their students, so lower social strata of society who cannot afford their children's economic needs send them to madaaris to lower their own burden. Borchgrevink (2011) does not like to adopt any pole and sees both positives and negatives in madrassah system. For him saying that madaaris are just meeting the needs of only poor people is an underestimation, as most of the Pakistani parents want their children to get religious education, and there are parents, who when do not find quality education in government schools, opt for madrasa education as better alternative. Even many students from abroad come to study in Pakistani madaaris because of their historical renown. Same is the case with involvement of madaaris in violent activities; some well-known madrassah scholars had been killed in Pakistan by extremist militant groups when they openly objected to their violent and brutal methods to spread their ideology. For Borchgrevink, to say madaaris are breeding ground of extremism and violence would be an injustice to so many madaaris who just focus on transmitting Islamic heritage and values.

College and University Education in Pakistan

At the time of independence in 1947, Pakistan inherited only one fully functioning university i.e. University of the Punjab, that was established by British government in 1882 in the Punjab province. Though University of Sind was also established in 1946, but that was not in a functioning condition (Iqbal, 2004).

Various attempts had been made through various constitutions and committees in different governments to make education system in line with national and ideological basis of the country and for the improvement of higher education. There remained an emphasis on the reformation of education system, but implementation did not seem to match with many of the recommendations; neither much financial assistance was provided nor other administrative reforms were introduced (Hamiddullah, 2005).

The higher education in Pakistan is dealt by both Federal and Provincial governments. The Higher Education Commission (HEC) plays a key role in the growth of higher education in Pakistan. HEC was established in 2002, replacing the University Grants Commission (UGC) under the rule of the federal government. HEC is an independent organization under the authority of the prime minister of Pakistan. HEC is responsible for budgetary allocations to different higher education institutes, for policy formulations of such institutes, affiliation of different public and private sector universities, and making a link between higher education institutes and society. HEC is also responsible for the implementing a quality control to universities, by accrediting different universities, setting up a university ranking system and providing funds and facilities for the arrangement of different seminars and conferences. It also provides indigenous and foreign scholarships to students and the faculty for capacity building of higher education institutes in Pakistan. Colleges are also affiliated with HEC but HEC does not

regulate colleges directly as it regulates universities. Colleges in Pakistan are not autonomous institutes and are affiliated with different Educational boards for higher secondary education and with different universities for Bachelor and Master level programs. Colleges usually function under provincial education departments and cannot make independent policy decisions about the scheme of studies and development of curricula rather they have to follow the pattern set by respective universities of their affiliation.

A quantitative contribution of HEC is visible, after the formulation of HEC, a three hundred percent increase in international research publications has been noted with rise of international research publications from 600 research papers per year in 2003 to 4,300 research papers in 2008 (Qazi, Simon, Rawat and Hamid, 2010).

Despite the efforts and contributions of HEC, the state of higher education in Pakistan is not satisfactory. According to the estimates of the Census of year 2001, only 4.38% of Pakistani population had Bachelor or equivalent education and only 1.58% of population had Master level education (GoP, Census, 2001).

The universities in Pakistan do not generally match international standards in matters of creativity and originality. Finances are limited and there has remained more emphasis on opening new departments and universities instead of improving resources of already available universities. Students' unrest due to various reasons is another cause in disruption of normal academic activities in university campuses. Laboratories and classes lack facilities and equipment, and there is shortage of skilled and qualified faculty (Hamidullah, 2005, p. 32).

Hamidullah observed problems with computer skills of faculty and staff members of universities as a hurdle in the use of modern instructional methods. Teachers mostly used frontal teaching methods and relied more on memorization of material instead of development of analytical skills.

Students reported their dissatisfaction with standards of libraries, laboratories, and hostel and transport services. A gap between university education and its practical implementation especially with linkage to industries was also observed. Administrative and political problems were also identified, student and staff unions that were mostly backed by political parties also contributed in hampering the educational setup. Politically based appointments were also observed to be problematic.

Highly bureaucratic setup of Pakistani universities is also said to be problematic rather than facilitating. According to Rahman (1998, 2004), universities in pre-partition India were constituted by the British government and as the British were more concerned about maintaining their hegemony, they primarily focused on strengthening bureaucracy and military as tools for meeting their ends. Education in that situation remained a secondary business and always under strict administrative control. The purpose of constructing universities was not to produce highly original, creative and democratic people, but to run the administrative machinery of the British government which could have proved cheaper when local population was trained and engaged. That is the reason that universities were not made autonomous institutes (like on the model of Oxford or Cambridge), and were made subordinate to the authority of state officials, i.e. a hierarchy of officials ranging from Governor-General to members of Supreme Council of India. Pakistan after partition inherited this legacy and, though a democratic state, still follows the tradition set by the British. Military and Civil Services in Pakistan still remain a first choice of the youth due to more prestige, power and financial affluence associated with them. Universities in Pakistan are still dominated by high government officials, including Chancellor who is president of the country in case of federal universities or Governor of the province in case of provincial universities, vice chancellor who is nominated by the chancellor, members of

legislature, secretaries, nominees of higher education, persons from civil society, and academics. The governing board is not dominated by academics but by people from state offices that shows their heavy influence in university decision making.

Rationale of the Study

The present research aimed to determine the effect of the level of dogmatic religiosity and syllabus related and semi syllabus related role-taking and guided reflection opportunities (educational environment) on moral judgment competence of the students of public sector colleges, universities and madaaris (religious institutes) in Pakistani population in order to check specifically the implications of Georg Lind's Dual-aspect theory and cognitive developmental paradigm in general. Very interesting trends in moral development have already been observed by the present author in Pakistani population during the validation study done on the Moral Judgment Test (Wahab, 2011). In the sample that was selected from schools, colleges and universities of Rawalpindi, Islamabad, and Lahore, a very low moral judgment competence was observed during the validation study that makes the present study more important and meaningful. It is extremely necessary that moral judgment competence be measured in a rather larger study with different variables taken into consideration that are recently the topics of research throughout the world. It is a common observation that in Pakistan the focus of educational institutes is rather on limited areas of development that are mostly associated with academic activities to get good grades. Systematic character building and moral development are the issues that are not given the primary importance in our educational system and this task is either put to parents alone or it is understood that certain religious indoctrination will suffice to develop a good moral sense. Modern research in the moral development is shifting its paradigm from traditional parent focused or religion focused approaches to the role of teachers and

educational environment of educational institutes in developing moral judgment capabilities in students (especially with more emphasis on cognitive structural aspect of moral development). Presently, it is very necessary to explore the effect of the nature of religiosity and educational environment on the moral judgment competence of Pakistani students. For this purpose especially students from madaaris (religious seminaries) and universities are selected in order to make a better contrast in both domains i.e. religious orientation and educational environment. Studies of this kind are important as these will discuss the core structure of Pakistani society, its moral values and competencies in order to create an impact on the future policy making in variety of areas especially related to democracy and ethic based education.

METHOD

Research Statement

The present research aims to investigate the effect of dogmatic religiosity and educational environment on the moral judgment competence.

Objectives

The objectives of the present study include:

1. Exploring the moral values and moral judgment competence of Pakistani society and to understand the extent of democratic trends present in the society.
2. Understanding the role of higher learning religious and relatively secular institutes in the development of moral competence and principles.
3. Establishing the relationship between type and degree of religiosity and moral judgment competence.
4. Understanding the contribution of educational environment with different role-taking and guided reflection opportunities in the development of moral values and moral judgment competence.

Hypotheses

1. Moral judgment competence is significantly lower in students belonging to less advantaged educational environment in comparison to students belonging to more advantaged educational environment

2. Students with high dogmatic religiosity exhibit significantly lower moral judgment competence in comparison to less dogmatic religious students
3. Students with high dogmatic religiosity show significant moral segmentation
4. Students belonging to more advantaged educational environment show increase in moral judgment competence during their studies in comparison to students belonging to less advantaged educational environment.
5. The pattern of moral preferences of students belonging to either more or less advantaged educational environment and with any level of dogmatic religiosity remains similar.
6. Moral judgment competence scores show a significant positive correlation with preference of post-conventional arguments and show a significantly negative correlation with preference of pre-conventional arguments.
7. Moral preferences form a simplex like structure where lower and higher stages highly correlate with their respective neighboring stages while the correlation decreases as the stage distance increases.

Conceptual and Operational Definitions of Variables

Moral Judgment Competence

Kohlberg (1964, cited in Lind, 1985) defined moral judgment competence as “the capacity to make decisions and judgments which are moral (that is, based on internal principles) and to act in accordance with such judgments.” For Lind (1985) moral judgment competence contains all cognitive, affective and behavioral dimensions so moral behavior depends on the individual’s ability to see the moral implications of a situation and to organize and consistently apply moral rules and principles to concrete situations.

For the present research moral judgment competence is defined as the “C-scores of individuals on a Moral Judgment Test (MJT) - Urdu version that was translated from the MJT Standard English version of Georg Lind and validated by the author of the present research (Wahab, 2011).

Moral Attitudes/Preferences

Moral attitudes or preferences are the same what Lind referred to as ‘content’ aspect of moral behavior or termed as moral principles or maxims or what Kohlberg termed as “internal moral principles” (Lind, 1985; 2008). This aspect is also defined as “the direction and the strength of the respondents’ affective commitment to Stage-typical moral concerns” (Lind, 1985b)

In MJT the moral attitudes/preferences represent the *affective aspect* of individual’s moral thinking which is calculated as the sum total of sum of four scores for each moral orientation derived from Kohlberg’s six stages of cognitive moral development. Sum for each orientation when taken separately shows individuals’ stage preferences that tell which stage of reasoning or moral orientation is the most and/or the least preferred by the individual. This criterion is also taken as an operational definition of moral preferences for the present research.

Moral Segmentation

Moral segmentation occurs when “subjects apply a different level of moral judgment competence when deciding on different moral issues” (Lind, 2003). This phenomenon has observed to be especially related to religiosity. According to Lind (2000c) “religiously oriented subjects suppress their autonomous moral judgment on dilemma contents, on which the church takes a strong stance. The segmentation phenomenon seems to indicate that internalized rules

(super-ego) rather than external social pressure constrain the use of autonomous moral judgment.”

On MJT moral segmentation is described as getting significantly low c-scores on a dilemma for which strong religious dogma exists (commonly euthanasia dilemma in MJT) as compared to the other dilemma that is less religiously concerned (commonly workers’ dilemma in MJT). Usually 8 point difference in c-scores between two dilemmas has been reported as segmentation in research literature so this criterion is taken as an operational definition of moral segmentation for the present research.

Dogmatic Religiosity

According to Rokeach (1954) dogmatism can be defined as “(a) a relatively closed cognitive system of beliefs and disbeliefs about reality, (b) organized around a central set of beliefs about absolute authority which, in turn, (c) provides a framework for patterns of intolerance and qualified tolerance toward others.”

For Lind (2005) dogmatic religiosity is “which does not allow the individual to reason for him- or herself.” Religious dogmatism commonly involves uncritical acceptance of Church authorities or teachings and directions of one’s religion and resistance to change those beliefs.

For the present research Dogmatic religiosity is defined as the “scores on the dogmatic religiosity section of the Urdu translation and adaptation of Dogmatic and Personal Religiosity Scale by Lind and Kietzig.” Following the criterion used by Saeidi-Parvaneh (2011) students getting mean score 3 to 4 on this scale were classified as *More Dogmatic* while students getting mean score of less than 3 were classified as *Less Dogmatic* students.

Educational Environment (Role-taking and Guided Reflection)

The learning environment is assessed by the opportunities it offers for role taking and guided reflection (Schillinger-Agati, 2006). According to Lind (2001, cited in Schillinger-Agati,

2006) the opportunities of role taking are those in which students have “to test new knowledge in experimental and real-life settings.” Guided reflection is defined as “requiring adequate advice and help provided by professors, other more experienced students, peers, tutors or alike, to discuss the new role taking experiences. In other words, feedback regarding students’ role-taking processes, discussions and reflections about successes and failures (Schillinger-Agati, 2006).” For Schillinger students need side by side with role taking opportunities, some support and guidance from the competent persons in order to think more critically about the challenges they are facing.

For the purpose of present research only Syllabus related Role taking (RTS) and Guided Reflection (GRS) and Semi syllabus related Role taking (RTSS) and Guided Reflection (GRSS) parts of the Urdu translation and adaptation of revised version of ORIGIN/u Questionnaire developed by Lind was used to measure the role taking and guided reflection opportunities for the students. These opportunities were collectively termed as Educational Environment and students were split into two groups with students reporting more than 25% of the total score on ORIGIN/u classified as belonging to *more advantaged Educational Environment*, and students reporting less than 25% of opportunities as students belonging to *less advantaged Educational Environment*. This criterion has been adopted by following the method used by Schillinger and Lind (2003).

Sample

The sample of the study (N = 403) consisted of students of Bachelor and higher degree programs from 3 universities, 2 colleges, and 3 madaaris from the provinces of Punjab, Khyber Pakhtoonkha, and Federal Capital Islamabad, Pakistan. A non-random stratified cluster sampling method was used for the selection of the sample. The population was divided into 3 clusters of

colleges, universities and Madaaris. From each cluster students of Bachelor and higher programs were selected; from Madaaris that have a different administrative and degree awarding set up, only those students who were studying in programs equivalent to bachelor or higher were selected. As change in moral competence during studies was also intended to be assessed, so from each institute, students in their first year of study and students studying for more than one year were included in the sample. After the selection of appropriate clusters a convenience method was used for the purpose of data collection. Most of the students mainly belonged to the disciplines of Psychology, Economics, International Relations, Mass Communications, English, and Sharia and Hadees. Some undergraduate students from madaaris were also selected but these were used only for the purpose of validity analysis of MJT-Urdu. These students were removed from main analyses. The final data set on which all main analyses were done consisted of 403 participants. The demographic characteristics of the final sample ($n = 403$) are given in the following table:

Demographic Information of the sample:

Institute	N	Mean Age	Gender	Grade	Duration
1. University of the Punjab, Lahore	58	20.7	M = 36, F = 20	Bachelor/equal = 21 Master/equal = 32, MPhil = 05	<1 year = 18 >1 year = 40
2. University of Peshawar, Peshawar	95	20.2	M = 18, F = 76	Bachelor/equal = 35 Master/equal = 60	<1 year = 58 >1 year = 35
3. International Islamic University, Islamabad	51	21.4	M = 51	Bachelor/equal = 15 Master/equal = 36	<1 year = 10 >1 year = 41
4. Govt. MAO College, Lahore	89	21.3	M = 46, F = 42	Master = 89	<1 year = 19 >1 year = 69
5. Govt. P. G. College, Asghar Mall, Rwp.	58	21.5	M = 16, F = 42	Master = 58	<1 year = 36 >1 year = 22
6. Jamia Rizwia Zia-ul-Uloom, Rwp.	09	22.7	M = 09	Bachelor/equal = 01 Master/equal = 08	>1 year = 09
7. Jamia Taleem-ul-Quran, Rwp.	29	23	M = 29	Bachelor/equal = 01 Master/equal = 28	<1 year = 05 <1 year = 24
8. Jamia Dar-ul-Uloom Farooqia, Rwp.	12	23.4	M = 12	Bachelor/equal = 11 Master/equal = 01	>1 year = 12
N = 403		Mean Age = 21.3	M = 218, F = 181	Bachelor/equal = 132, Master/equal = 264, Mphil = 07	<1 year = 146 >1 year = 243

Universities = n = 205, Colleges = n = 147, Madaaris = n = 50

Instruments

Moral Judgment Test – Urdu version (MJT-Urdu)

Moral Judgment Test (MJT) was developed by Georg Lind (1978) to measure the level of cognitive moral development termed as *moral judgment competence*. MJT is a unique measure that has been classified as an Experimental Questionnaire (EQ). EQs are paper-pencil tests that are quite different from self-rating attitude measures with traditional psychometric properties, EQs are not paper pencil questionnaires to be used in experimental settings rather these are economic multi-factorial approaches combined in a single test (Lind, 1982, p. 14-16). MJT presents a multivariate $N = 1$ experiment and a $2 \times 2 \times 6$ factorial design with a real moral task that requires participants to have a flexibility of judgment while solving some moral issues. The test consists of two moral dilemmas with two stories presenting a moral situation in the form of a euthanasia dilemma and a workers' dilemma, in each dilemma the characters of the stories make a decision and participants have to rate how much they agree with that decision on a 7 point scale (-3 to +3). Each moral dilemma is followed by six arguments representing six moral orientations that correspond to the developmental stages elaborated by Kohlberg, the arguments are provided both in favor of the decision and against the decision and participants have to rate how much they accept or reject these arguments on a 9 point scale (-4 to +4).

Two types of scores are calculated, one representing *affective aspect* are used to see the pattern of preferences of six moral orientations that are calculated by adding scores on four arguments for each stage. The *cognitive aspect* which is also called *moral judgment competence* or C-score is calculated by using a technique similar to multivariate analysis of variance devised by Lind (2000d). The c-scores on MJT range from 0 (no competence at all) to 100 (maximum competence). The c-scores basically show response consistency on pro and contra arguments, higher response consistency is a necessary but not a sufficient condition for getting higher c-

scores. Higher c-scores also require increasing differentiation and integration of moral arguments by rating arguments according to their moral quality whether in favor or contrary to the decision made (i.e. greater ability to show reversibility). Low c-scores usually result when participants are unable to understand moral arguments, are pressured to show compliance to some authority, have rigidity in thought (lacking reversibility) by mostly rating only pro arguments positively whereas rating contra arguments negatively without considering moral quality of those arguments. The MJT appears to be least biased as its c-index is a value neutral measure. Any person preferring even lower moral orientations and rejecting higher moral orientations can get higher c-scores if his/her pattern of responses is meaningfully integrated and differentiated (Lind, 1995)

The MJT is based on Kohlberg's cognitive developmental framework but and Georg Lind's dual aspect theory (2008). The test requires three rigorous criteria of theoretical validation that include:

- i. *Preference Hierarchy*: individuals' preferences for six moral orientations show a hierarchical order with orientations representing preconventional moral reasoning preferred the least and that representing postconventional moral reasoning are preferred the most.
- ii. *Cognitive-Affective Parallelism*: individuals' c-scores are correlated with stage preferences. C-scores show a significant positive correlation with postconventional moral orientations while a negative correlation with preconventional moral orientations.
- iii. *Quasi-Simplex Structure*: six moral orientations are organized in such an order that lower orientations (1 and 2) show higher correlation with each other but have lower correlation with higher orientations (5 and 6) that in turn have higher correlation with each other. Orientations depicting conventional reasoning come in between.

An extensive study was done by the present author for the translation and validation of Moral Judgment Test into Urdu language (Wahab, 2011). The study showed that the test fulfilled only the preference hierarchy criterion while the other two criteria remained inconclusive. The results of the present work show more satisfactory findings for the other two criteria as well. The MJT-Urdu has now been certified by Lind as a valid equivalent of standard test version (The latest validity analysis is given in the results section).

Dogmatic and Personal Religiosity Scale (DPR-Scale)

In order to measure the dogmatic religiosity of students of various institutes “Dogmatic and Personal Religiosity Scale (DPR-Scale)” by Lind and Kietzig (Revised-2011) was used (provided by Lind through personal communication). It is a 16-item 4 point Likert scale with response format “1 as Not at all to 4 as absolutely yes.” Item No. 1 to 11 measure the dogmatic religiosity and item No. 12 to 16 measure personal religiosity. The test was translated and adapted into Urdu language and only the dogmatic religiosity subscale of the DPR-scale was used for the present research, the personal religiosity subscale was dropped due to cultural irrelevance. Some additional items were inserted in the test related to fundamental Muslim faith and belief about Islamic Sharia. A pretest study was conducted on a small sample ($n = 30$) of students of International Islamic University, Islamabad. The results showed a significant positive correlation ($r = .535, p < .01$) between original test items and additional items showing a good construct validity and high internal consistency reliability with Cronbach’s alpha value of .736. The item asking about belief in Bible was replaced by the item asking about the belief in Quran. The test mostly consists of fundamental Muslim faith questions, these aspects are classified as dogmatic as no rational explanation for such beliefs are present and a kind of blind faith is necessary in order to accept them. Statements related to Islamic Sharia were also inserted in order to assess the practical dimension of belief distinct from metaphysical dimension. The

personal religiosity subscale usually measures more flexibility and uncertainty about religious truths, which is a more liberal orientation that can be loosely regarded as belief in spirituality but no specific religion or it can be said to be measuring agnosticism. As this subscale was culturally irrelevant, it was dropped for the purpose of data collection. The DPR-Scale has been used by Lupu (2009) in Romania and by Saeidi-Parvaneh (2011) in Iran in their PhD. studies. Following the method used by Saeidi-Parvaneh (2011), participants were classified as more dogmatic if they got scores ranging from 3 to 4, while participants with scores less than 3 were classified as religiously less dogmatic.

ORIGIN/u (Questionnaire to measure Role-Taking and Guided Reflection Opportunities)

ORIGIN/u is a questionnaire that is developed by Lind (1996, reviewed 2001) to assess the role-taking and guided reflection opportunities within higher education institutes (questionnaire was provided by Lind through personal communication). The test covers 8 domains for the two dimensions of Role taking and Guided reflection opportunities (each dimension contains 4 domains that include Syllabus related Role-taking opportunities (RTS), Semi-Syllabus related Role-taking (RTSS), Extra Syllabus related Role-taking opportunities (RTES), Non Syllabus related Role-taking (RTNS); Syllabus related Guided Reflection opportunities (GRS), Semi Syllabus related Guided Reflection opportunities (GRSS), Extra Syllabus related Guided Reflection opportunities (GRES), and Non Syllabus related Guided Reflection opportunities (GRN). For the purpose of present research only RTS, GRS, RTSS and GRSS subscales of the revised version of ORIGIN/u Questionnaire by Lind were used to measure the role taking and guided reflection opportunities for the students in their respective institutes. The test was translated into Urdu and was assessed by a PhD associate professor of psychology. Only one statement was added asking about students' opportunities of class presentation. This questionnaire is a descriptive quantitative measure that inquires students about

their practical experiences at the institutes where they are studying and does not intend to measure some personality trait or attitude. Syllabus Related role taking opportunities (RTS) are measured by item no 1-10 on a 4 point scale ranging from 0 (never) to 3 (often). The questions generally ask students to what extent they have role-taking opportunities like presenting research paper in class, participation in syllabus evaluation, chairing a discussion in class, opportunity to do research on a self-chosen topic, student internship, participation in social welfare programs etc. in their institutes. Syllabus related Guided Reflection (GS) subscale contains item no 11-17 that mostly cover opportunities like having guidance from supervisor, teachers, and class mates for different roles being performed, teachers' method of teaching and nature of exam they conduct, and teachers' contribution in developing critical thinking skills, problem solving, and self-reliance in students. Semi Syllabus related Role-taking opportunities (RTSS) subscale consisted of item no 18-20 that had the queries about the opportunities to become a student research assistant or a tutor for introductory or advanced courses while Semi Syllabus related Guided Reflection opportunities (GSS) subscale contained questions 21-26 related to the availability of guidance from teachers, supervisors or class mates when performing that duties. The scores on ORIGIN/u range from 0-105. For the scoring of ORIGIN/u method used by Schillinger and Lind (2002) was used by setting a cut-off point at 25% of the total scale score which is 26.25. students with scores lower than 26.25 were classified as belonging to *less advantaged educational environment*, while students getting scores above the cut-off point were classified as students belonging to *more advantaged educational environment*.

Research Design

A cross-sectional study design was used for the purpose of data collection for doing some one time analyses. Two-way (2x2 and 2x3) factorial designs were used for the purpose of splitting groups into two or three categories of independent variables. As change in certain

variables with passage of time was also needed to be observed within institutes, a replicated cross-sectional design was used for this purpose, it is a design when participants at different phases of the program are studied at a single time so it contains in it the characteristics of both longitudinal and cross-sectional designs (Kumar, 2005). Mixed-method designs were used for certain conditions where within group effect was needed to be studied for six moral orientations and between group effect was needed to compare certain groups as well. Survey method was used for data collection purposes.

Design Characteristics Explained

2x2 Factorial Design for Educational Environment and Duration of Study on Moral

Competence:

Educational Environment	Duration	
	<1 Year	>1 Year
Less Advantaged EE	C-scores	C-scores
More Advantaged EE	C-scores	C-scores

A 2x3 Factorial Design for Institute Type and Duration of study on Moral competence:

Institute Type	Duration		
	<1 Year	>1 Year	>2 Years
College	C-scores	C-scores	C-scores
University	C-scores	C-scores	C-scores

A 2x2 Factorial Design for Institute Types and Duration of study on Moral segmentation:

Institute Types	Duration	
	<1 Year	>1 Year
University	segmentation	segmentation
College	segmentation	segmentation

Mixed-Model Designs:

Mixed-model Design for within group differences in moral preferences and between group differences in Dogmatic Religiosity

Religiosity	Preference for Moral Orientations					
	Orientation1	Orientation2	Orientation3	Orientation4	Orientation5	Orientation6
Less Dogmatic						
More Dogmatic						

Mixed-model Design for within group differences in moral preferences and between group differences in Educational Environment

Edu. Environment	Preference for Moral Orientations					
	Orientation1	Orientation2	Orientation3	Orientation4	Orientation5	Orientation6
Less Adv. EE						
More Adv. EE						

Mixed-model Design for within group differences in moral preferences and between group differences in Institutes

Institute Type	Preference for Moral Orientations					
	Orientation1	Orientation2	Orientation3	Orientation4	Orientation5	Orientation6
University						
College						
Madrassah						

Mixed-model Design for within group differences in acceptance of dilemma solution and between group differences in Institutes

Institute Type	Acceptance of dilemma solution	
	Workers' Dilemma	Doctors' Dilemma
University	choice	choice
College	choice	choice
Madrassah	choice	choice

Procedure and Data Analysis

The author of the present work personally made contact with institutional administrations and also some links were used for the purpose of data collection. Institutional permission and students' consent was properly sorted. It was made sure that uniform instructions would be used for the whole sample. Students were given a briefing about the purpose of the research and confidentiality of personal information was assured. No physical or emotional harm was done to acquire the information. A total of 550 sets of questionnaires were distributed in 8 different institutes out of which 496 set of questionnaires were returned (Return rate = 90.2%), 57

incomplete forms were discarded from the data set. A total of 439 forms were left for the analysis. As this data set contained undergraduate students ($n = 36$) from madaaris, it was used only for the purpose of validity analysis of MJT-Urdu but for final main analyses those participants were also removed. Analysis of the information was done through version 16 of the SPSS software. A number of analyses were done depending on the nature of design and purpose of the study including, paired samples t-test, independent samples t-test, Pearson Correlation, principle component analysis, and analysis of variance techniques including one-way ANOVA, factorial ANOVA, mixed ANOVA and repeated measures ANOVA. A special criterion of Absolute Effect size (Lind, 2010) was also applied to assess the absolute mean difference of two or more scores on moral judgment competence irrespective of statistical significance of tests. Lind has described 5 points difference of Absolute effect size as significant while 10 points difference as very significant effect size.

Exploratory analyses

For the present study, a number of exploratory analyses were planned for those relationships about which no sufficient theoretical or research support was available and no clear hypothesis could be formulated. Institutional differences were compared for moral judgment competence, moral preferences and moral segmentation. Certain durational analyses were done to see the change in moral competence and moral segmentation. Gender differences on certain variables were taken into consideration and institutional analysis about decision choices was also planned.

RESULTS

Table 1

Cronbach alpha Reliability of scales and subscales of ORIGIN/u Questionnaire (N = 403)

Scales	No. of items	Alpha Reliability
Role-Taking Scale (RT)	13	.80
1. Syllabus bound RT (RTS)	10	.81
2. Semi Syllabus bound RT (RTSS)	03	.58
Guided Reflection Scale (GR)	24	.89
1. Syllabus bound GR (GRS)	10	.59
2. Semi Syllabus bound GR (GRSS)	14	.97

Table 1 shows Alpha reliability coefficients for all scales and sub-scales of ORIGIN/u questionnaire. All the scales have high internal consistency. The reliability of Role-taking scale is .80, and Guided Reflection scale is .89, with all subscales showing high reliability scores.

Table 2

Inter-scale correlation of subscales of ORIGIN/u Questionnaire (N = 403)

ORIGIN/u Questionnaire	1	2	3	4
1. Syllabus bound RT (RTS)	---	.34*	.31*	.35*
2. Semi Syllabus bound RT (RTSS)	---	---	.02	.83*
3. Syllabus bound GR (GRS)	---	---	---	.04
4. Semi Syllabus bound GR (GRSS)	---	---	---	---

* $P < .05$

Table 2 shows inter-scale correlations between the sub-scales of ORIGIN/u questionnaire. RTS scale shows significant positive correlation with all other scales. RTSS subscale shows a significant positive correlation with GRSS scale. RTSS subscale is showing non-significant correlation with GRS subscale while GRS subscale is showing non-significant correlation with GRSS subscale. This non-significant correlation is conceptually understandable as RT specific subscales (i.e. Syllabus related and Semi Syllabus related) are more related to their corresponding GR scales.

Table 3

Item total correlation of ORIGIN/u Questionnaire (N = 398)

ORIGIN/u Questionnaire			
Statement No.		Statement No.	
1.	.44**	18.	.54**
2.	.53**	19.	.57**
3.	.38**	20.	.56**
4.	.49**	21.	.74**
5.	.45**	22.	.78**
6.	.41**	23.	.74**
7.	.39**	24.	.62**
8.	.39**	25.i.	.77**
9.	.46**	25.ii.	.79**
10.	.34**	25.iii.	.77**
11.	.47**	25.iv.	.75**
12.	.31**	25.v.	.64**
13.	.00	26.i.	.77**
14.	.10*	26.ii.	.77**
15. i.	.26**	26.iii.	.77**
15.ii.	.29**	26.iv.	.70**
15.iii.	.23**	26.v.	.66**
15.iv.	.22**		
16.	.03		
17.	.04		

** $p < .01$, * $p < .05$

Table 3 shows item total correlation of ORIGIN/u questionnaire. Most of the items show moderate to high significant positive correlation values ranging from .10 to .78.

Table 4

Cronbach alpha Reliability of Dogmatic and Personal Religiosity Scale (DPR-Scale) (N = 403)

Scale	No. of items	Alpha Reliability
DPR Scale	11	.69
DPR Scale with additional items	19	.84

Table 4 shows Cronbach Alpha reliability coefficients for the selected part of Dogmatic and Personal Religiosity Scale (DPR Scale) measuring only dogmatic religiosity, and DPR-scale with some additional items. Both versions are showing high reliability especially the version with additional items (.84).

Table 5

Item total correlation of Dogmatic and Personal Religiosity Scale (DPR) (N = 403)

DPR Scale		DPR scale (with additional items)	
Statement No.		Statement No.	
1.	.50**	1.	.50**
2.	.51**	2.	.51**
3.	.47**	3.	.47**
4.	.54**	4.	.54**
5.	.49**	5.	.49**
6.	.51**	6.	.51**
7.	.56**	7.	.56**
8.	.47**	8.	.47**
9.	.64**	9.	.64**
10.	.58**	10.	.58**
11.	.61**	11.	.61**
		12.	.54**
		13.	.50**
		14.	.52**
		15.	.41**
		16.	.35**
		17.	.48**
		18.	.50**
		19.	.92**

** $p < .01$

Table 5 shows item-total correlation of DPR scale with and without additional items (only dogmatic religiosity part). All the items are showing significantly positive correlation ranging from .35 to .92

Validity analysis of Moral Judgment Test-Urdu (MJT-Urdu)

Table 6

Criterion 1: Preference Hierarchy

Means, Standard Deviations and F value for participants on six moral orientations (N = 439).

	Orientation 1		Orientation 2		Orientation 3		Orientation 4		Orientation 5		Orientation 6			
	(n = 439)		(n = 439)		(n = 439)		(n = 439)		(n = 439)		(n = 439)			
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD		
Moral orientations													F	p
Stage Scores	0.65	5.6	1.83	5.4	2.54	5.9	2.70	5.5	3.22	5.4	3.43	5.8	37.28	.000

Within group $df = 4.6$; Groups total $df = 2017.56$

Table 6 shows results of repeated measures ANOVA, with Greenhouse-Geisser correction that was conducted to assess the differences between the mean preferences of six moral orientations similar to Kohlbergian stages. Results indicate that participants did rate the six orientations differently, $F(4.61, 2017.56) = 32.28, p < .000$. The means and standard deviations of the six orientations from stage 1 to stage 6 are presented. Examination of these means suggests that participants did prefer six moral orientations in a hierarchical order with higher orientations i.e. 5th and 6th preferring more than lower orientations i.e. 1st and 2nd. Polynomial contrasts indicated, in support of this, there was a significant linear trend, $F(1,438) = 120.44, p < .00, \eta^2 = .22$. However, a significant quadratic trend, $F(1,438) = 12.23, p < .001$, is also observed reflecting little flattening of the curve for higher moral orientations. Overall the Preference Hierarchy criterion for the validity of the test is fulfilled.

Figure 1

Preference hierarchy of six moral orientations (N = 439)

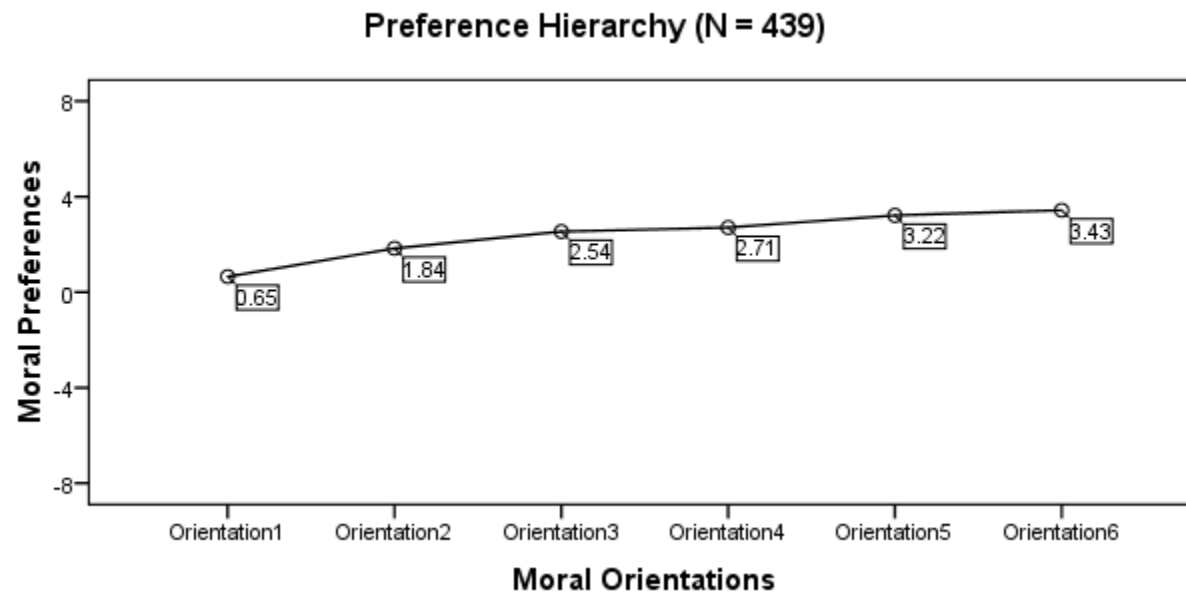


Table 7

Criterion 2: Cognitive-Affective Parallelism

Pearson Correlation between Moral orientations and Moral Judgment Competence (C-Scores) (N = 430)

Moral Orientations	C-Scores (MJC)
1. Orientation 1	-.05
2. Orientation 2	.06
3. Orientation 3	.06
4. Orientation 4	.16**
5. Orientation 5	.30**
6. Orientation 6	.29**

** $P < .01$

Table 7 shows Pearson correlation values between six moral orientations and Moral Judgment Competence (C-Scores). There is significant positive correlation only for orientation 4, 5 and 6 and for other orientations correlation is not significant which partially fulfills the criterion of Cognitive-Affective Parallelism.

Figure 2

Cognitive-Affective Parallelism (N = 430)

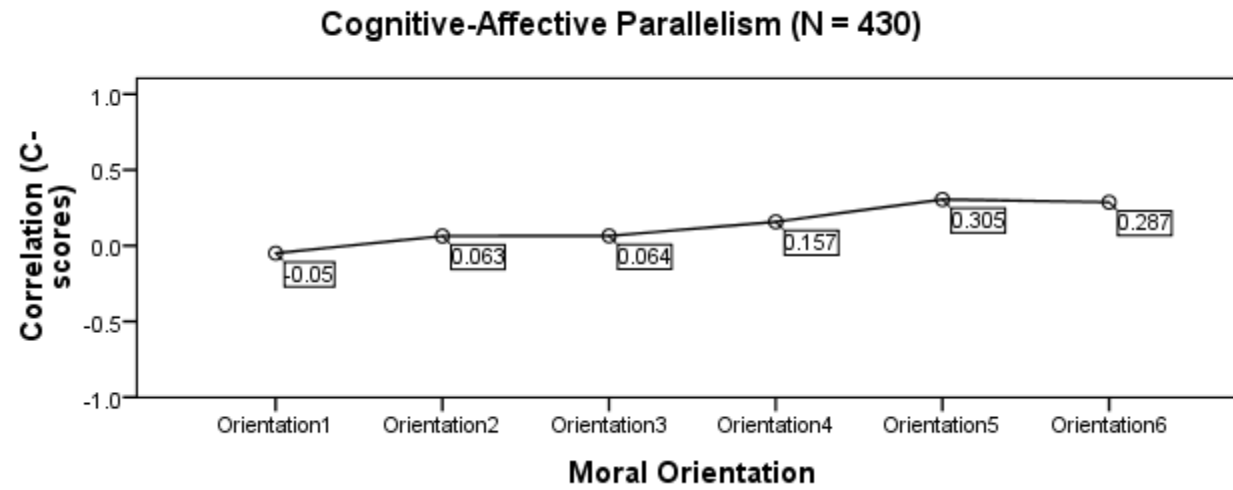


Table 8**Criterion 3: Quasi-Simplex Structure**

Principle Component analysis with varimax rotation, component loadings for six moral orientations (N = 439)

Moral Orientations	<u>Component Loadings</u>	
	1	2
Orientation 1	----	.870
Orientation 2	.408	.799
Orientation 3	.740	----
Orientation 4	.728	.429
Orientation 5	.835	----
Orientation 6	.828	----
Loadings < .40 are omitted		

Principal component analysis with varimax rotation was conducted to assess the underlying structure of six moral orientations. Two components were requested. After rotation, the first component accounted for 67.6% of the variance and the second component accounted for 9.6% of variance. Table 8 displays the moral orientations and component loadings for the rotated components, with loadings less than .40 omitted to improve clarity. The correlation pattern shows a simplex like structure. Lower orientations and higher orientations are correlating well with each other and are loading on separate factors.

Figure 3

Component loadings of six moral orientations

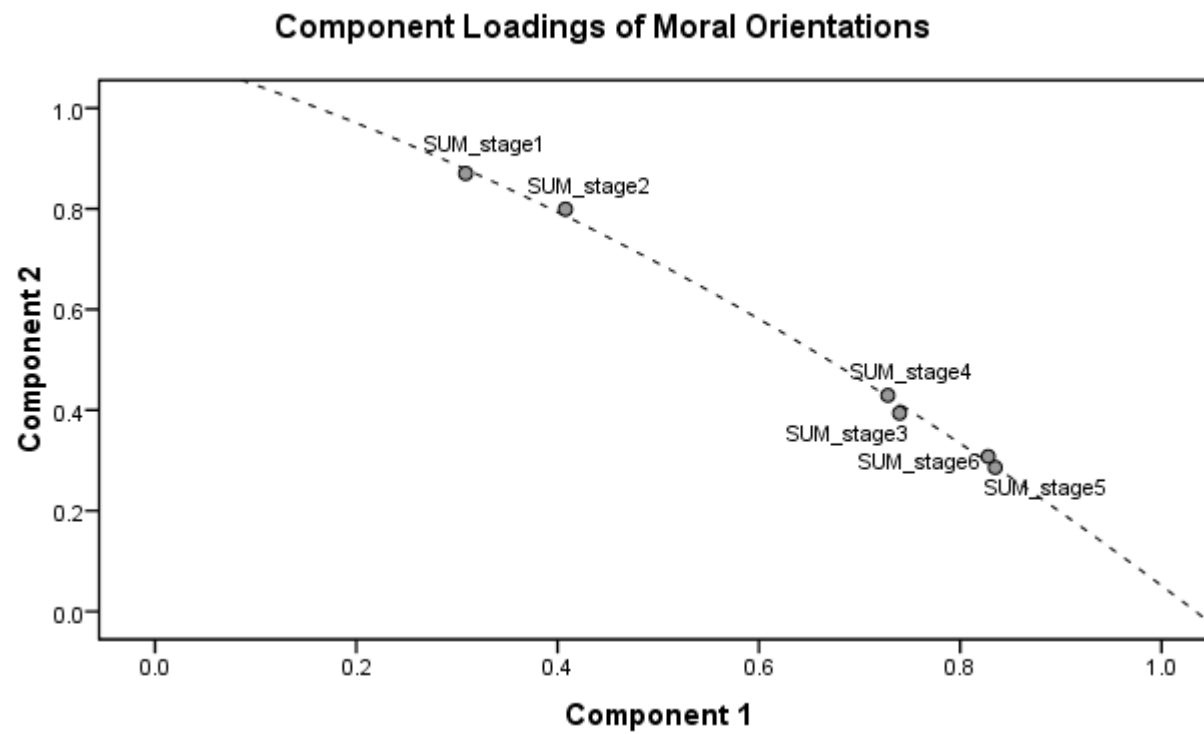


Table 9*Overall Mean and SD of main variables used in the study*

Moral Judgment Competence ^a		Moral Segmentation		Dogmatic Religiosity ^b		More Dogmatic ^c		Less Dogmatic ^d		Educational Environment ^e		Less Advantaged EE ^f		More Advantaged EE ^g	
(n = 394)		(n = 376)		(n = 403)		(n = 384)		(n = 19)		(n = 398)		(n = 71)		(n = 327)	
<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
11.8	10.7	-7.6	26.82	3.6	.33	3.7	0.24	2.6	0.26	41.8	17.9	19.9	4.9	46.2	16.2

a. Score Range = 0-100

b. Mean Score Range = 1-4

c. Score Range = 3-4

d. Score Range < 3

e. Score Range = 0-105

f. Score Range = 0-26.25

g. Score Range > 26.25-105

Hypothesis 1

Moral judgment competence is significantly lower in students belonging to less advantaged educational environment in comparison to students belonging to more advantaged educational environment

Table 10

Educational Environment and Moral Judgment Competence

Mean, Standard Deviation and t value of students belonging to Less advantaged and More advantaged educational environments for Moral judgment competence (c-scores) (N = 389).

	Less Advantaged EE		More Advantaged EE			
	(n = 70)		(n = 319)			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Moral Judgment Competence (C-scores)	13.37	11.10	11.49	10.61	1.22	0.187
<i>df</i> = 387						

Mean, Standard Deviation and t value of students belonging to Less advantaged and More advantaged educational environments for Moral judgment competence (c-scores) are shown. The results indicate no significant mean difference between two groups. Kolmogorov-Smirnov test was significant for both groups [Less advantaged EE ($D(70) = .133$, $p < .000$, More Advantaged EE $D(319) = .141$, $p < .000$)] showing violation of normality assumption but due to larger sample sizes this violation is ignored.

Absolute Effect size = 1.9

Table 11**Educational Environment and Moral Judgment Competence in universities (n = 199)**

Mean, Standard Deviation and t value of students belonging to Less advantaged and More advantaged educational environments on Moral judgment competence (c-scores)

	Less Advantaged EE		More Advantaged EE			
	(n = 44)		(n = 155)			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Moral Judgment Competence (C-scores)	13.45	10.07	12.97	10.58	.270	0.787
<i>df</i> = 197						

Comparison of university students on Moral judgment competence (c-scores) variable reporting to be either having less advantaged or more advantaged educational environments. The results indicate no significant mean difference between two groups. Kolmogorov-Smirnov test was significant for group of students belonging to more advantaged educational environment $D(155) = .117, p < .000$] showing violation of normality assumption but due to larger sample sizes this violation is ignored.

Absolute Effect size = 0.48

Table 12**Educational Environment and Moral Judgment Competence in colleges (n = 142)**

Mean, Standard Deviation and t value of students belonging to Less advantaged and More advantaged educational environments on Moral judgment competence (c-scores)

	Less Advantaged EE		More Advantaged EE			
	(n = 21)		(n = 121)			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Moral Judgment Competence (C-scores)	15.68	13.11	12.06	10.84	1.371	0.17
<i>df</i> = 140						

Comparison of college students on Moral judgment competence (c-scores) variable reporting to be either having less advantaged or more advantaged educational environments. The results indicate no significant mean difference between two groups.

Absolute mean difference = More advantaged – less advantaged = 12.06 – 15.68 = -3.6

Note: Madrassah Comparison could not be performed due to insufficient number of students in one of the groups.

Hypothesis 2

Students with high dogmatic religiosity exhibit significantly lower moral judgment competence in comparison to less dogmatic religious students

Table 13

Dogmatic Religiosity and Moral Judgment Competence

Mean, Standard Deviation and t value of the variable Moral judgment competence (c-scores) for groups of students considered to be religiously Less dogmatic or More dogmatic (N = 394).

	Less Dogmatic		More Dogmatic		<i>t</i>	<i>p</i>
	<i>(n = 19)</i>		<i>(n = 375)</i>			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Moral Judgment Competence (C-scores)	12.99	8.91	11.73	10.81	.497	0.62
<i>df</i> = 392						

Table 13 shows results of independent samples t-test comparison on the variable moral judgment competence between two groups of students showing either higher or lower dogmatic religiosity. The results show no significant mean difference of c-scores between two groups ($t(392) = .497, p < .62$). For this analysis Levene's test was not significant which approves the assumption of homogeneity of variances. As the sample size of less dogmatic group is rather small ($n = 19$), Kolmogorov-Smirnov test (K-S test) was conducted to check the normal distribution assumption. The K-S test shows that c-scores for the less dogmatic group are normally distributed ($D(19) = .134, p < .20$), while normal distribution assumption is violated for more dogmatic group ($D(375) = .14, p < .000$) but as the sample size is large ($n = 375$) this violation is ignored.

Absolute mean difference (Less dogmatic – more dogmatic) = $12.9 - 11.7 = 1.2$

Table 14

Dogmatic Religiosity and Moral Judgment competence (scale with additional items)

Mean, Standard Deviation and t value of the variable Moral judgment competence (c-scores) for groups of students considered to be religiously Less dogmatic or More dogmatic (test with additional items)(n = 394).

	Less Dogmatic		More Dogmatic			
	(n = 22)		(n = 372)			
	M	SD	M	SD	t	p
Moral Judgment Competence (C-scores)	14.15	9.05	11.65	10.80	1.06	0.29
df = 392						

Table 14 shows results of independent samples t-test comparison on the variable moral judgment competence between two groups of students showing either higher or lower dogmatic religiosity. The results show no significant mean difference of c-scores between two groups ($t(392) = 1.06, p < .29$). For this analysis Levene's test was not significant which approves the assumption of homogeneity of variances. As the sample size of less dogmatic group is rather small ($n = 22$), Kolmogorov-Smirnov test (K-S test) was conducted to check the normal distribution assumption. The K-S test results show that c-scores for the less dogmatic group are normally distributed ($D(22) = .091, p < .20$), while normal distribution assumption is violated for more dogmatic group ($D(372) = .14, p < .000$) but as the sample size is large ($n = 375$) this violation is ignored.

Absolute mean difference (Less dogmatic – more dogmatic) = $14.15 - 11.7 = 2.5$

Hypothesis 3

Students with high dogmatic religiosity show significant moral segmentation

Table 15

Dogmatic Religiosity and Moral Segmentation

Mean, Standard Deviation and t value of the variable Moral segmentation for groups of students considered to be religiously Less dogmatic or More dogmatic (n = 376).

	Less Dogmatic		More Dogmatic			
	<i>(n = 18)</i>		<i>(n = 358)</i>			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Moral Segmentation	-.57	17.3	-7.98	27.2	1.14	0.25
<i>df</i> = 374						

Table 15 shows results of independent samples t-test comparison on the variable moral judgment competence between two groups of students showing either higher or lower dogmatic religiosity. The results show no significant mean difference of moral segmentation between two groups, $t(374) = 1.14$, $p < .25$. Leven's test was significant.

Absolute mean difference = less dogmatic-more dogmatic = $[-.57 - (-7.98)] = 7.4$

Table 16**Dogmatic Religiosity and Moral segmentation (scale with additional items)**

Mean, Standard Deviation and t value of the variable Moral segmentation for groups of students considered to be religiously Less dogmatic or More dogmatic (test with additional items)(n = 376).

	Less Dogmatic		More Dogmatic			
	(n = 20)		(n = 356)			
	M	SD	M	SD		
Moral Segmentation	-1.5	19.6	-7.97	27.1	1.043	0.29
<i>df</i> = 374						

Table 16 shows results of independent samples t-test comparison on the variable moral segmentation between two groups of students showing either higher or lower dogmatic religiosity. The results show no significant mean difference of moral segmentation between two groups, $t(374) = 1.04$, $p < .29$. Leven's test was not significant.

Absolute mean difference = less dogmatic-more dogmatic = $[-1.5 - (-7.97)] = 6.4$

Hypothesis 4

Students belonging to more advantaged educational environment show increase in moral judgment competence from first year of admission to last year in the particular type of educational institute in comparison to students belonging to less advantaged educational environment.

Table 17

Change in Moral Judgment Competence in university students with more or less advantaged educational environment (n = 197)

Mean, Standard Deviation and F values for moral judgment competence (c-scores) of University Students who have been studying for less than one year or more than one year duration and having a less advantaged or more advantaged educational environment (n = 197).

			<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
Less Advantaged EE	n = 26	< 1 year	13.6	10.13		
	n = 17	> 1 year	13.8	10.4		
More Advantaged EE	n = 57	< 1 year	12.2	09.5		
	n = 97	> 1year	13.4	11.2		
Educational Environment					.22	.64
Duration					.14	.71
EE*Duration (interaction)					.07	.79

Between Group df = 1; Groups total df = 193

Table 17 shows results of Factorial analysis of variance comparison of university students on the basis of two time durations (those who have been studying for less than one year or those who have been studying for more than 1 year) and Educational environment (more or less advantaged) on moral judgment competence variable. Results indicated no significant main effects for Educational Environment ($F(1, 193) = .22, p < .64$) or Duration ($F(1,193) = .14, p < .71$) and no significant interaction effect ($F(1,193) = .07, p < .79$). Madrassah students could not be included in the analysis due to insufficient number of students in one of the groups (n = 0)

Absolute Effect size = $(M.Ad2 - M.Ad1) - (L.Ad2 - L.Ad1) = (13.4 - 12.2) - (13.8 - 13.6) = 1$

Figure 4

Change in Moral Judgment Competence in university students with more or less advantaged educational environment (n = 197)

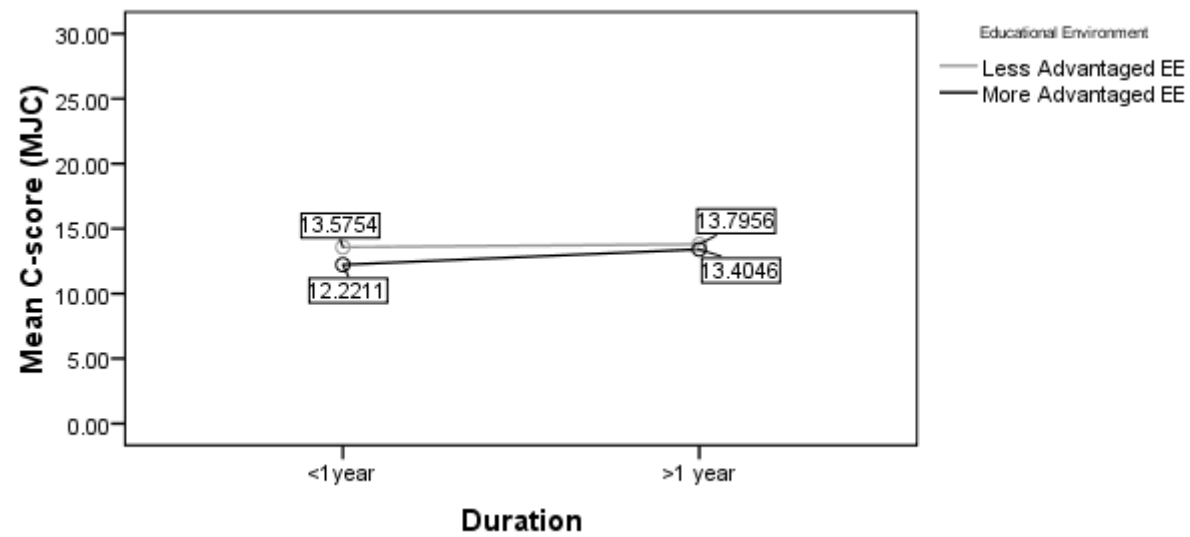


Table 18**Change in Moral Judgment Competence in college students with more advantaged educational environment (n = 197)**

Mean, Standard Deviation and t value of the variable moral judgment competence between groups college students having More advantaged educational environment and studying for less than or more than 1 year duration (n = 120).

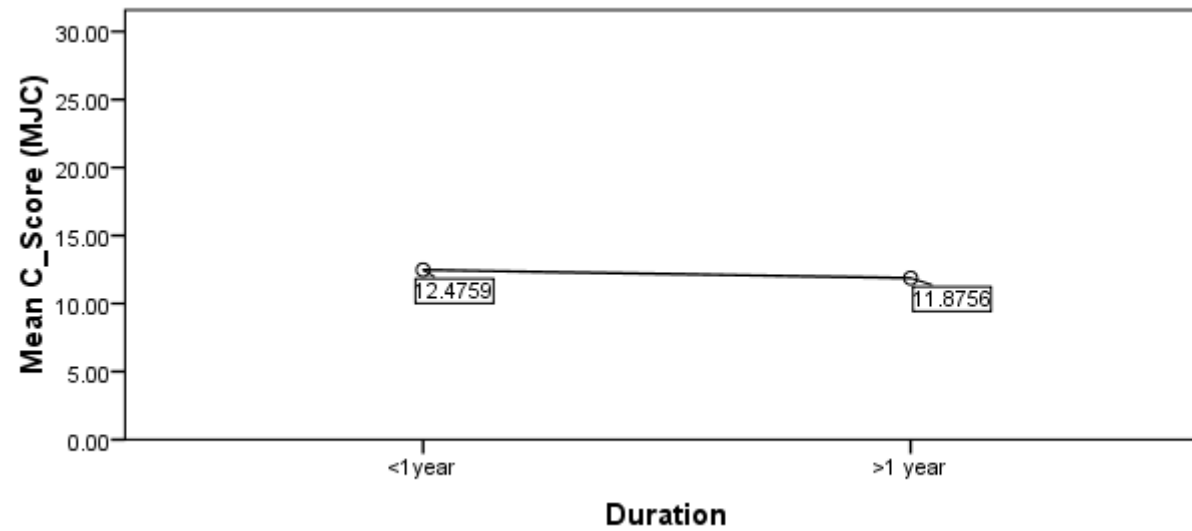
	< 1 year		> 1 year			
	(n = 40)		(n = 80)			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Moral Judgment Competence (C-scores)	12.5	9.95	11.9	11.4	.284	.78
<i>df</i> = 118						

Table 18 shows results of independent samples t-test comparison on moral segmentation between two groups of college students reporting more educational environment and studying for less than or more than 1 year duration. The results show no significant mean difference in moral judgment competence between two groups ($t(118) = .284, p < .78$)).

Absolute Effect size or mean difference = - 0.60

Figure 5

Change in Moral Judgment Competence in college students with more advantaged educational environment (n = 197)



***Note: Analysis for college students reporting less advantaged educational environment, and for madrassah students could not be done due to insufficient number of students in one of the two duration groups.**

Hypothesis 5

The pattern of moral preferences of students belonging to different educational settings and with different levels of dogmatic religiosity remains same while level of moral judgment competence differs.

Table 19

Moral preferences and dogmatic religiosity

Means, Standard Deviations and F value of less and more dogmatic students on six moral orientations (N = 403).

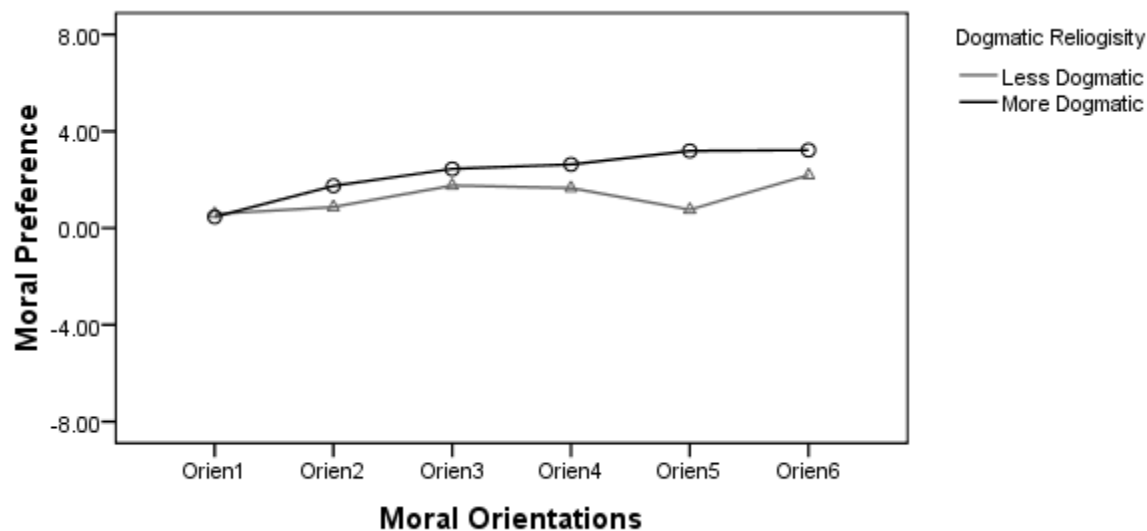
Moral Orientations		Orien.1		Orien.2		Orien.3		Orien.4		Orien.5		Orien.6			
		(n = 403)		(n = 403)		(n = 403)		(n = 403)		(n = 403)		(n = 403)			
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	F	p
Religiosity	Less dogmatic(n = 19)	.58	3.7	.86	3.4	1.7	4.8	1.6	4.3	.76	4.3	2.2	3.9		
	More dogmatic(n = 384)	.46	5.6	1.7	5.5	2.4	5.9	2.6	5.5	3.2	5.5	3.2	5.7		
Moral Orientations														3.62	.004
Orien.*religiosity														1.05	.383
type (interaction)															
Religiosity type														.83	.363
(b/w sub. effect)															

Within groups $df = 4.6$; within groups df (interaction) = 4.6; Between groups $df = 1$

Table 19 Shows results of Mixed ANOVA, with Greenhouse-Geisser correction that was conducted to assess the differences between the mean preferences of six moral orientations within religiously more dogmatic and less dogmatic groups of students. Results indicate that participants did rate the six orientations differently, a significant main effect for moral orientations was noted, $F(4.6, 1833.2) = 3.62, p < .004$. There was no significant main effect of type of religiosity found, $F(2,339) = 1.22, p < .295$, indicating that the stage ratings of more or less dogmatic students was overall the same. There was no significant interaction effect between rating of six moral orientations and type of religiosity, $F(4.6, 1833.2) = 1.05, p < .383$. This indicates that pattern of preferences of moral orientations within more and less dogmatic groups is about the same though a deviation is observed at 5th orientation for less dogmatic group.

Figure 6

Dogmatic religiosity and pattern of moral preferences



This deviation is not observed when DPR-scale with additional items was used with mean score of orientation 5 increasing to 1.3

Figure 7

Dogmatic religiosity and pattern of moral preferences

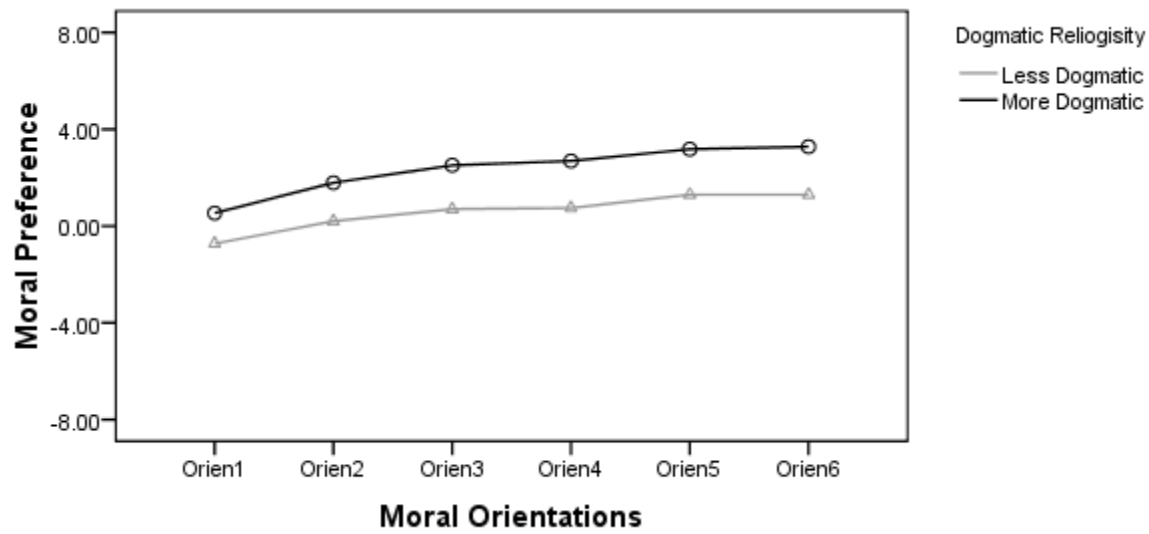


Table 20

Moral Preference and Educational Environment

Means, Standard Deviations and F value of students belonging to More advantaged or less advantaged educational environments on six moral orientations (N = 398).

Moral Orientations		Orien.1		Orien.2		Orien.3		Orien.4		Orien.5		Orien.6		F	p
		(n = 398)		(n = 398)		(n = 398)		(n = 398)		(n = 398)		(n = 398)			
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD		
Edu.Environment	Less adv. EE.(n = 71)	.25	5.2	2.0	4.9	2.9	5.7	3.2	4.8	3.9	4.8	4.1	4.9		
	More adv. EE(n = 327)	.51	5.7	1.7	5.5	2.3	5.9	2.5	5.5	2.9	5.5	2.9	5.8		
Moral orientations														27.5	.000
Orientations*EE														1.24	.288
(interaction)															
EE (b/w sub.														.95	.331
effect)															

Within groups $df = 4.6$; within groups df (interaction) = 4.6; Between groups $df = 1$

Table 20 shows results of Mixed ANOVA, with Greenhouse-Geisser correction that was conducted to assess the pattern of preferences of six moral orientations within groups of students belonging to less advantaged or more advantaged educational environments. Results indicate that participants did rate the prefer six orientations differently, a significant main effect for moral orientations was noted, $F(4.6, 1812.2) = 27.5, p < .000$. There was no significant main effect of type of educational environment, $F(1,396) = .95, p < .331$, indicating that the orientation ratings of students from both of the groups were overall same. There was no significant interaction effect between rating of moral orientations and Educational Environment, $F(4.6, 1812.2) = 1.24, p < .288$. This indicates that pattern of preferences within both groups is about the same.

Figure 8

Educational Environment and pattern of moral preferences

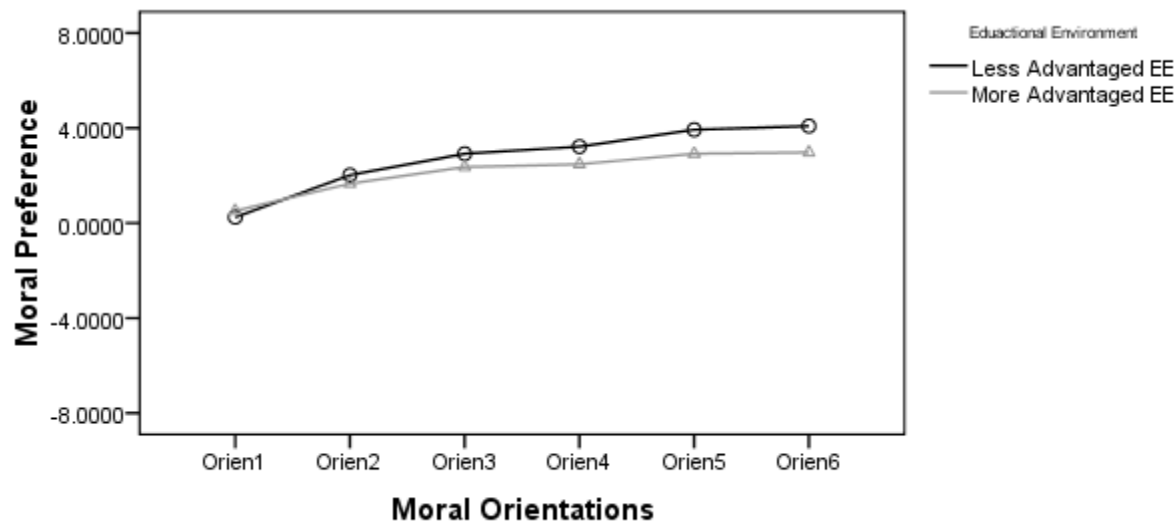


Table 21

Moral preferences and Institute Type

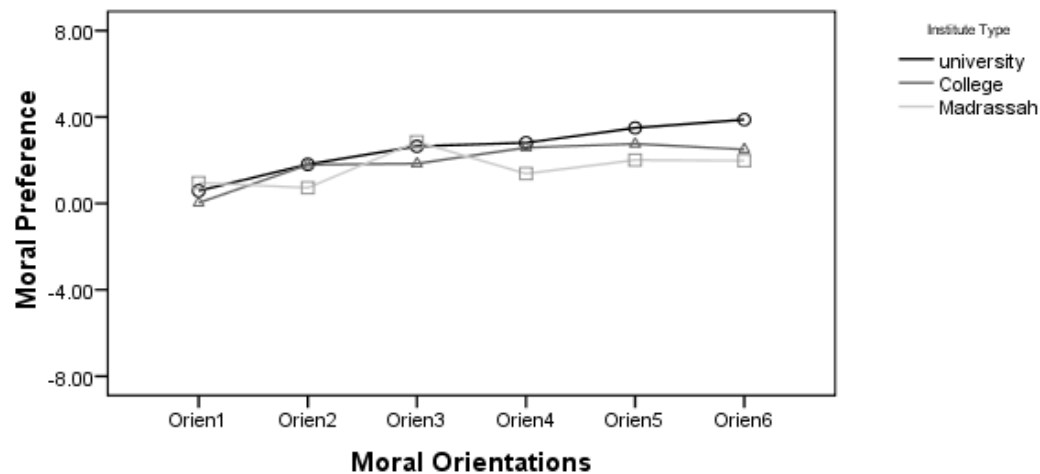
Means, Standard Deviations and F value of university, college and madrassah students on six moral orientations (N = 402).

Moral Orientations		Orien1		Orien2		Orien3		Orien4		Orien5		Orien6		<i>F</i> <i>p</i>	
		<i>(n = 402)</i>		<i>(n = 402)</i>		<i>(n = 402)</i>		<i>(n = 402)</i>		<i>(n = 402)</i>		<i>(n = 402)</i>			
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Institutes	University (n = 205)	.58	5.6	1.8	5.5	2.6	5.9	2.8	5.6	3.5	5.5	3.9	5.6		
	College (n = 147)	.03	5.6	1.8	5.5	1.8	6.2	2.6	5.4	2.7	5.3	2.5	5.8		
	Madrassah (n = 50)	.96	4.6	.72	4.1	2.8	4.1	1.3	4.3	2.0	4.5	1.9	4.7		
Moral Orientations														19.2	.000
Orien*Institute type (interaction)														02.5	.008
Inst. Type (b/w sub. effect)														01.2	.295

Within groups $df = 4.6$; within groups df (interaction) = 9.1; Between groups $df = 2$

Table 21 shows results of Mixed ANOVA, with Greenhouse-Geisser correction that was conducted to assess the differences between the mean preferences of six moral orientations within groups of university, college and madrassah students. Results indicate that participants did rate the six orientations differently, a significant main effect for moral orientations was noted, $F(4.6, 1821.85) = 19.17, p < .000$. There was no significant main effect of type of institute, $F(2,339) = 1.22, p < .295$, indicating the ratings among university, college and madrassah students were overall the same. Significant interaction effect between moral orientations and type of institute was also observed, $F(9.1, 1821.85) = 2.5, p < .008$. This indicates that pattern of preferences of moral orientations within institutes differed significantly. For understanding these patterns, repeated contrasts were conducted that indicated significant interaction effects between orientation 1 and orientation 2, $F(2,399) = 3.8, p < .024$, between orientation 2 and orientation 3, $F(2,399) = 3.12, p < .046$, and between orientation 3 and 4, $F(2,399) = 4.48, p < .012$. Separate mixed ANOVA tests were also conducted with combinations of two institutes, significant interaction effect was observed only when madrassah was included with either university or college suggesting that only madrassah students shows a different pattern of moral preferences.

Figure 9



Hypothesis 6

Moral judgment competence scores show a significant positive correlation with higher stage preferences (post-conventional reasoning) and show a significantly negative correlation with lower stage preferences (pre-conventional reasoning).

Table 22

Pearson Correlation between Moral orientations and Moral Judgment Competence (C-Scores) (N = 403)

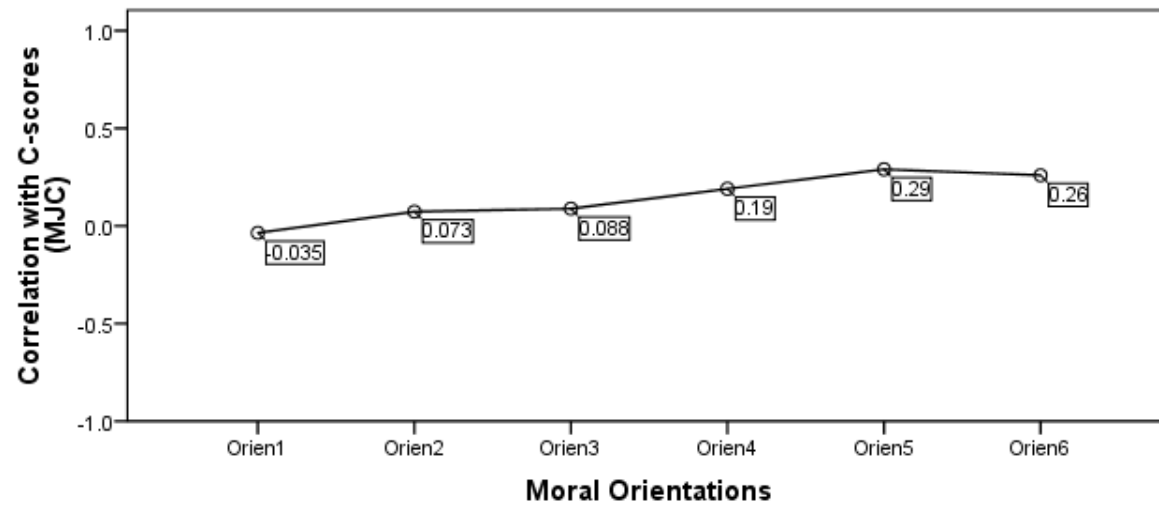
Moral Orientations	C-Scores (MJC)
1. Orientation 1	-.035
2. Orientation 2	.073
3. Orientation 3	.088
4. Orientation 4	.19**
5. Orientation 5	.29**
6. Orientation 6	.26**

** $P < .01$

Table 22 shows Pearson correlation values between six moral orientations and of Moral Judgment Competence (C-Scores). There is significant positive correlation only for orientation 4, 5 and 6 and for other orientations correlation is not significant.

Figure 10

Pearson correlation of six moral orientations and moral judgment competence scores (N = 403)



Hypothesis 7

Moral preferences form a simplex like structure where lower and higher stages highly correlate with their respective neighboring stages while the correlation decreases as the stage distance increases.

Table 23

Principle Component analysis with varimax rotation, component loadings for six moral orientations (N = 403)

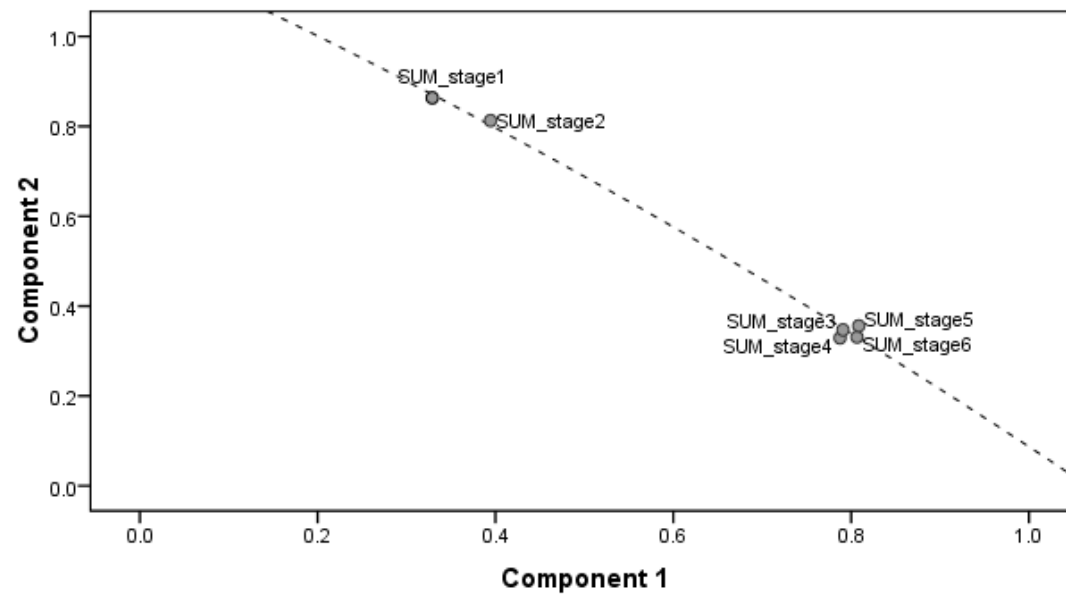
Moral Orientation	<u>Component Loadings</u>	
	1	2
Orientation 1	----	.86
Orientation 2	----	.81
Orientation 3	.78	----
Orientation 4	.79	.429
Orientation 5	.84	----
Orientation 6	.86	----

Loadings < .40 are omitted

Principal component analysis with varimax rotation was conducted to assess the underlying structure of six moral orientations. Two components were requested. After rotation, the first component accounted for 68.3% of the variance and the second component accounted for 9.7% of variance. Table 23 displays the stages and component loadings for the rotated components, with loadings less than .40 omitted to improve clarity. The correlation pattern shows a simplex like structure. Lower orientations and higher orientation are correlating well with each other and are loading on separate components.

Figure 11

Component Loadings of six moral orientations



Exploratory Analyses

Table 24

Institutional comparison of Moral Judgment Competence

Mean, Standard Deviation and F values for moral judgment competence (c-scores) of University, College, and Madrassah Students (N = 394).

	universities		colleges		Madaaris			
	(n = 201)		(n = 144)		(n = 49)			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
Moral Judgment Competence (c-scores)	12.96	10.46	12.70	11.22	4.36	6.70	17.94	0.000
Between groups <i>df</i> = 2; Within group <i>df</i> = 327.29; Groups total <i>df</i> = 329.29								

Table 24 shows results of one way analysis of variance (ANOVA) comparison of three groups of university, college and madrassah students on moral judgment competence variable. As Leven's test was significant showing unequal variances among groups, a Brown-Forsythe correction was used. The BF F-ratio is statistically significant ($F(2, 327.29) = 17.94, p < .05$). For post hoc analysis Games-Howell test was conducted. This test is used when variances are unequal and also takes into account unequal group sizes. Post hoc analysis shows that only Madrassah students significantly differ ($p < .05$) on the variable moral judgment competence from college and university students with mean difference of -8.3 and -8.6 respectively.

Absolute effect size (University-Madrassah) = 8.6

Absolute effect size (College - madrassah) = 8.3

Figure 12

Comparison of University, College and Madrassah students on moral judgment competence (N = 394)

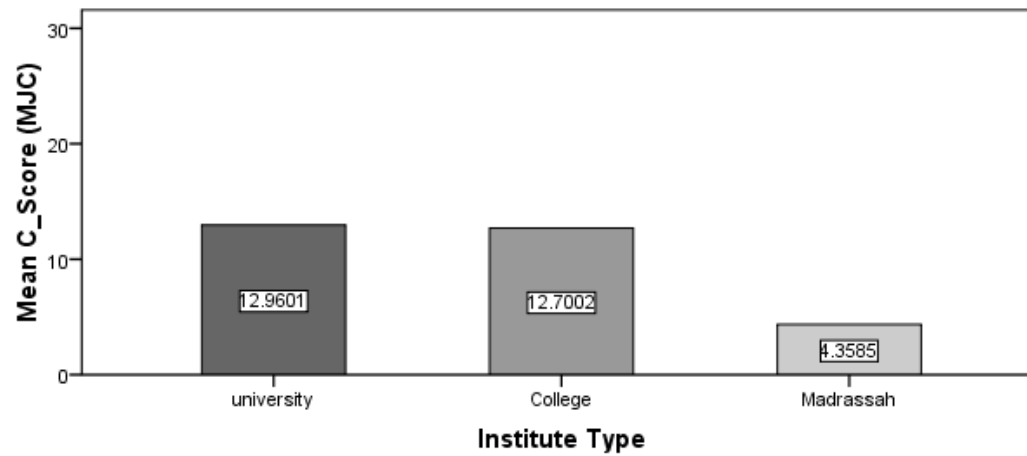


Table 25**Institutional comparison of Moral Judgment Competence (all institutes)**

Mean, SD and F values of University, College, and Madrassah Students on moral judgment competence (N = 393).

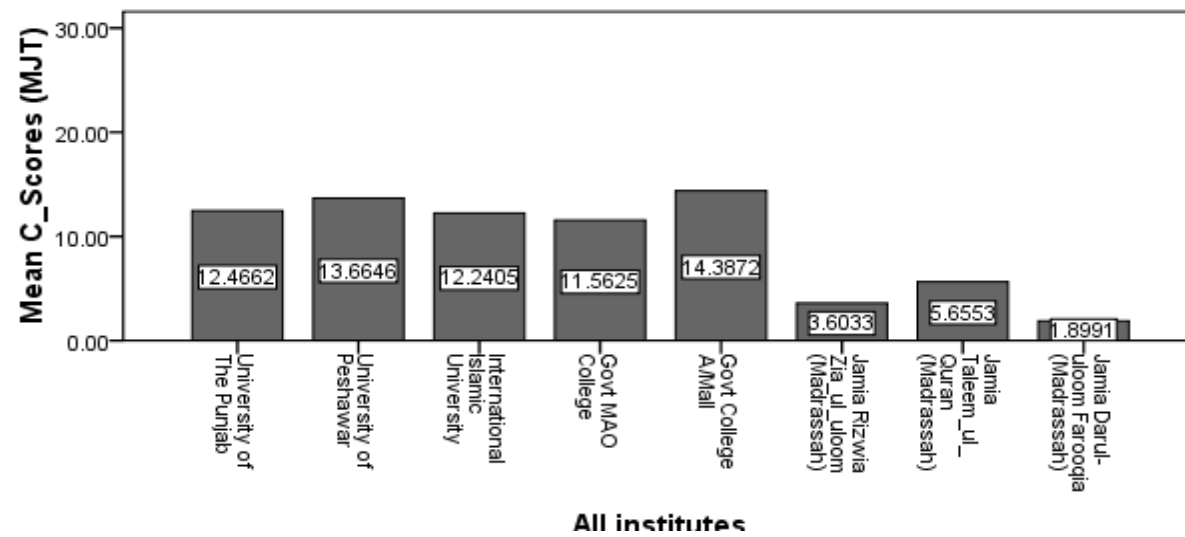
	Uni. of Punjab (n = 56)		Uni. of Peshawar (n = 93)		International Islamic Uni (n = 51)		Govt. MAO college (n = 86)		Govt. College A. Mall (n = 58)		Jamia Rizwia Zia ul Ulum (n = 9)		Jamia Taleem ul Quran (n = 28)		Jamia Faruqia (n = 12)			
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	F	p
Moral Judgment Competence	12.5	9.7	11.1	1.1	12.2	10.3	11.6	10.2	14.4	12.4	3.6	2.9	5.6	8.5	1.9	.82	6.44	.000

Within Group df = 7; Between Group df = 328.7

Table 25 shows results of one way analysis of variance (ANOVA) comparison of eight educational institutes for the variable moral judgment competence. As Leven's test was significant showing unequal variances among groups, $F(7, 385) = 4.8, p < .000$, a Brown-Forsythe correction was used. The BF F-ratio is statistically significant ($F(5, 328.7) = 6.44, p < .000$). For post hoc analysis Games-Howell test was conducted. This test is used when variances are unequal and also takes into account unequal group sizes. Post hoc analysis shows that only Madaaris significantly differ ($p < .05$) on the variable moral judgment competence from universities and colleges except Jamia Taleem-ul-Quran that also does not differ significantly from International Islamic University ($p < .062$) and Govt. MAO College ($p < .068$)

Figure 13

Institutional comparison on moral judgment competence



Institutional Comparison

Table 26

Change in Moral Judgment Competence in university and college students (N = 342)

Mean, Standard Deviation and F values for moral judgment competence (c-scores) of university and college Students who have been studying for less than one year, more than one year or more than two years of duration (N = 342).

			<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
University	n = 84	< 1 year	12.5	9.7		
	n = 53	=> 1 year	14.1	10.5		
	n = 62	=>2 years	12.8	11.6		
College	n = 54	< 1 year	14.9	11.5		
	n = 57	=> 1year	11.1	11.0		
	n = 32	=>2 years	12.0	10.9		
Institute Type					.140	.709
Duration					.481	.619
Institute*Duration (interaction)					1.85	.158

b/w Group df institute = 1

b/w group df duration = 2

Groups total df = 336

Table 26 shows results of Factorial analysis of variance comparison of university and college students on the basis of three time durations (those who have been studying for less than one year, more than one year or more than three years) on moral judgment competence variable. Results indicated no significant main effects for Institute type, $F(1, 336) = .140$, $p < .71$) or Duration, $F(2,336) = .481$, $p < .62$) and no significant interaction effect, $F(2,336) = 1.85$, $p < .16$). Madrassah students could not be included in the analysis due to insufficient number of students in one of the groups (n = 5)

Absolute Effect Size = $(uni3 - uni1) - (college3 - college1) = (12.8 - 12.5) - (12.0 - 14.9) = 3.2$

Figure 14

Change in Moral Judgment Competence in university and college students (N = 342)

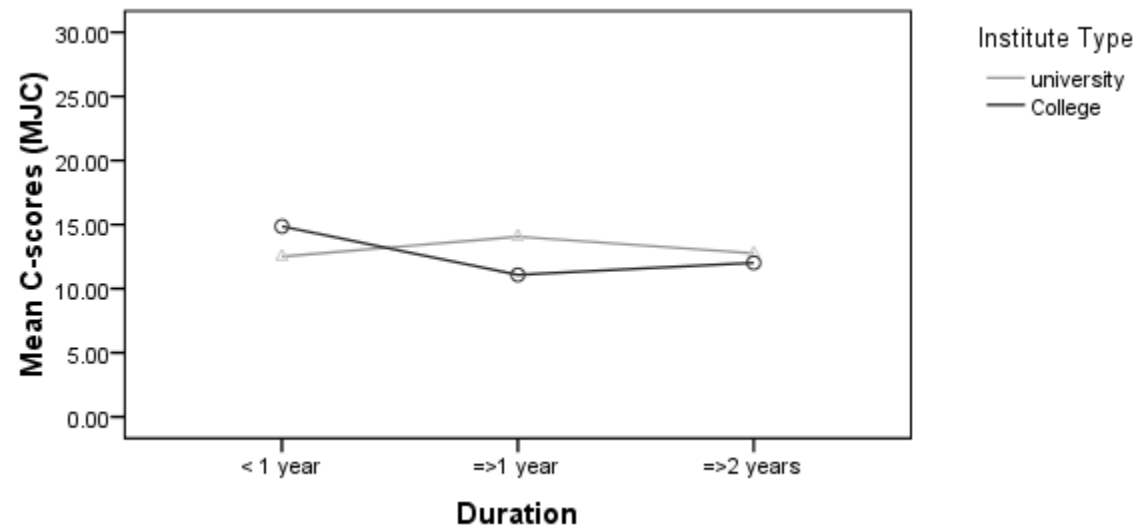


Table 27**Moral Judgment Competence according to different disciplines**

Mean, SD, and F values of students belonging to different subject combinations for the variable moral judgment competence (N = 351).

	Psychology (n = 161)		Economics (n = 62)		International Relations (n = 33)		Mass Communication (n = 17)		English (n = 29)		Sharia and Hadees (n = 49)		F	p
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD		
Moral Judgment Competence	12.5	10.7	14.4	12.1	11.6	9.1	10.2	8.2	10.9	2.0	4.3	6.7	6.82	.000

Within Group df = 5; Between Group df = 191.34

Table 27 shows results of one way analysis of variance (ANOVA) comparison of six groups of students on the basis of academic discipline for the variable moral judgment competence. As Leven's test was significant showing unequal variances among groups ($F(5, 345) = 5.1, p < .000$), a Brown-Forsythe correction was used. The BF F-ratio is statistically significant ($F(5, 191.34) = 6.82, p < .000$). For post hoc analysis Games-Howell test was conducted. This test is used when variances are unequal and also takes into account unequal group sizes. Post hoc analysis shows that only Sharia and Hadees students significantly differ ($p < .05$) on the variable moral judgment competence from all other group combinations except from students of Mass communication ($p < .13$).

Figure 15

Moral judgment competence and academic disciplines

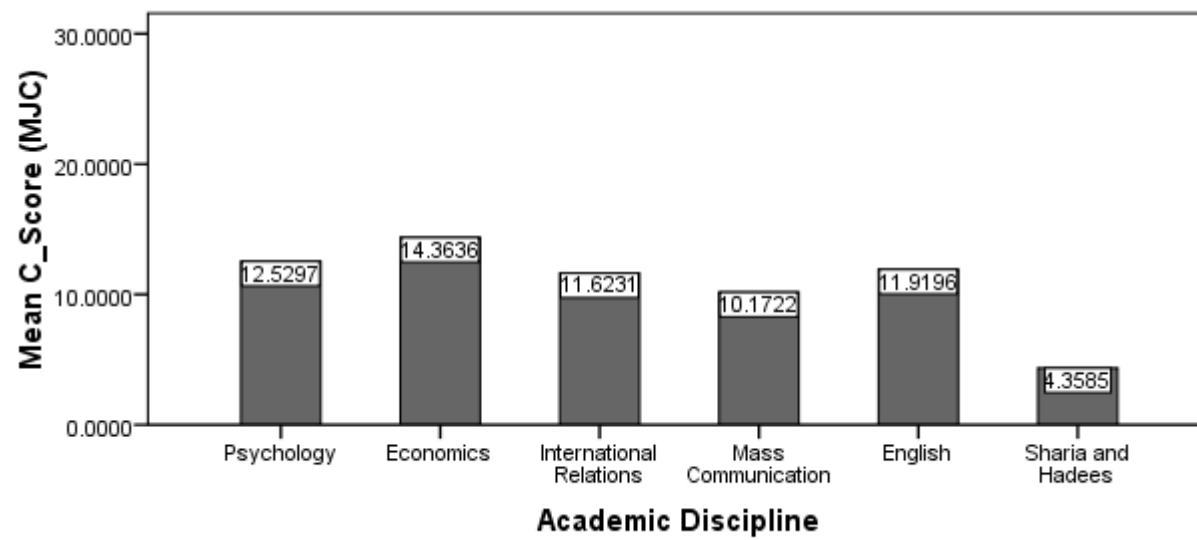


Table 28**Moral Judgment Competence according to grades**

Mean, Standard Deviation and t value of groups of students of bachelor (or equivalent grade) and master (or equivalent grade) on the variable moral judgment competence (n = 389).

	Bachelor or equivalent (n = 128)		Master or equivalent (n = 261)			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Moral Judgment Competence (C-scores)	11.5	11.1	11.9	10.6	-.419	.67
<i>df</i> = 387						

Table 28 shows results of independent samples t-test comparison on moral judgment competence between two groups of students studying in bachelor (or equivalent grade) and master (or equivalent grade). The results show no significant mean difference in moral judgment competence between two groups, $t(387) = -.419$, $p < .67$.

Absolute Effect size or mean difference = - 0.48

Table 29**Moral Judgment Competence and Gender (Institutional factor controlled)**

Mean, Standard Deviation and t value of male and female college and university students on the variable moral judgment competence (n = 341).

	Males		Females			
	(n = 164)		(n = 178)			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Moral Judgment Competence (C-scores)	12.8	11.1	12.7	10.4	.05	.96
<i>df</i> = 339						

Table 29 shows results of independent samples t-test comparison on moral judgment competence between male and female students. The results show no significant mean difference in moral judgment competence between two groups, $t(339) = .05, p < .96$.

Absolute mean difference = 0.1

Table 30**Moral Segmentation and Gender (Institutional factor controlled)**

Mean, Standard Deviation and t value of male and female students on the variable moral segmentation (n = 327).

	Males		Females			
	(n = 157)		(n = 171)			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Moral Segmentation	-4.9	27.9	-10.3	27.1	1.8	.08
<i>df</i> = 325						

Table 30 shows results of independent samples t-test comparison on moral judgment competence between male and female students. The results show no significant mean difference in moral judgment competence between two groups, $t(325) = 1.8$, $p < .08$.

Mean difference = -5.4

Table 31**Moral Segmentation and Institute Type**

Means, SD and F value of University, College, and Madrassah Students on moral segmentation (N = 376).

	University		college		Madrassah			
	(n = 190)		(n = 141)		(n = 45)			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
Moral Segmentation	-8.7	27.3	-6.05	28.1	-7.9	20.0	.48	0.62

Within Groups df = 2; Between Groups df = 278.9

Table 31 shows results of ANOVA comparison of three groups of university, college and madrassah students on moral segmentation variable. As Leven's test was significant showing unequal variances among groups ($F(2, 373) = 3.763, p < .024$), Brown-Forsythe correction was used. Results of ANOVA test show no significant difference among three groups on moral segmentation, $F(2, 278.9) = .48, p < .62$).

Figure 16

Moral segmentation among university, college and madrassah students

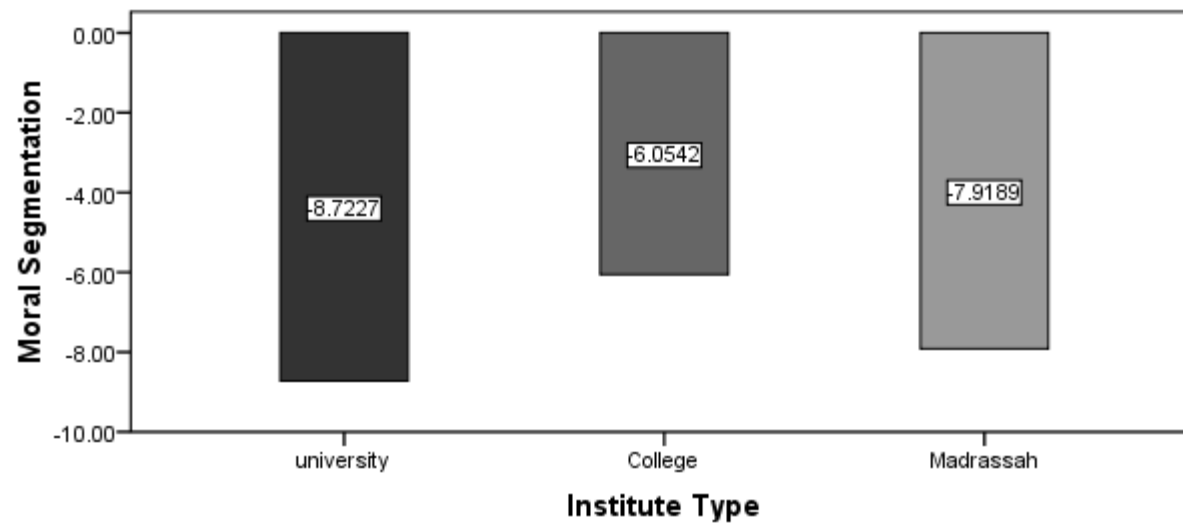


Table 32**Moral Segmentation and Educational Environment**

Mean, Standard Deviation and t value on the variable moral segmentation between groups of students belonging to Less advantaged and More advantaged educational environments ($n = 371$).

	Less Advantaged EE		More Advantaged EE			
	$(n = 63)$		$(n = 308)$			
	M	SD	M	SD		
Moral Segmentation	-18.4	26.5	-5.31	26.3	t	p
$df = 369$					-3.6	.000

Table 32 shows results of independent samples t-test comparison on moral segmentation between two groups of students either belonging to more advantaged educational environment of less advantaged educational environment. The results show a significant mean difference in moral segmentation between two groups ($t(369) = -3.6, p < .000$). For this analysis Levene's test was not significant which approves the assumption of homogeneity of variances. Kolmogorov-Smirnov test shows that normal distribution assumption is violated for more advantaged educational environment group ($D(308) = .108, p < .000$) but as the sample size is large ($n = 308$) this violation is ignored.

Absolute Effect size or mean difference = -13.1

Figure 17

Moral Segmentation and Educational Environment

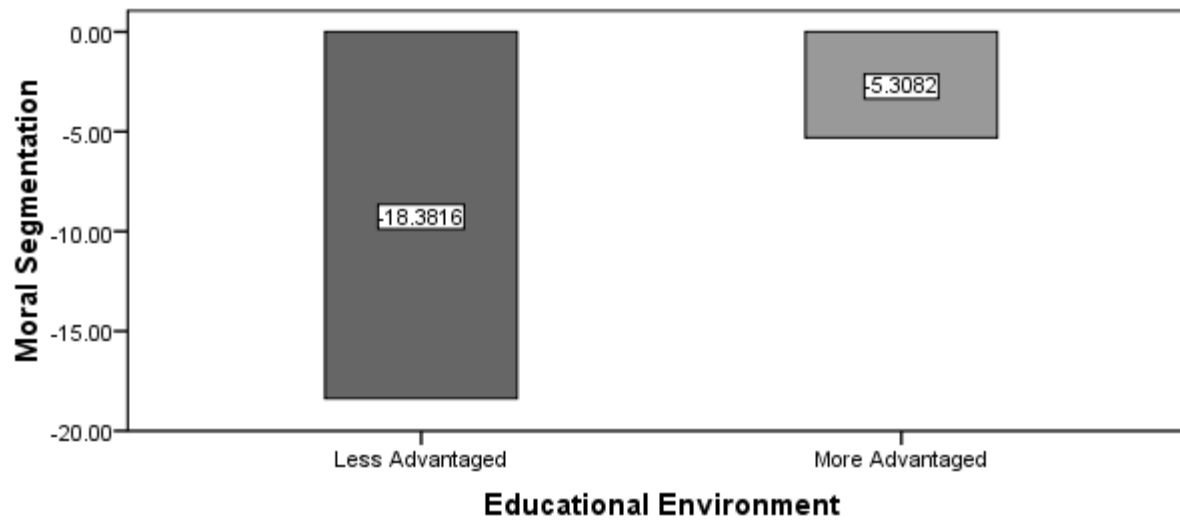


Table 33**Change in Moral Segmentation in university and college students (N = 328)**

Mean, Standard Deviation and F values for moral segmentation of University and College Students who have been studying for less than one year or more than one year duration (N = 328).

			<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
University	n = 82	< 1 year	-12.4	28.2		
	n = 106	> 1 year	-5.7	26.6		
College	n = 54	< 1 year	-3.4	28.6		
	n = 86	> 1year	-7.8	27.9		
Institute Type					1.18	.28
Duration					.13	.72
Institute*Duration (interaction)					3.09	.079

Between Group df = 1; Groups total df = 324

Table 33 shows results of Factorial analysis of variance comparison of university and college students on the basis of two time durations (those who have been studying for less than one year or those who have been studying for more than 1 year) on moral segmentation variable. Results indicated no significant main effects for Institute type ($F(1, 324) = 1.18, p < .28$) or Duration ($F(1,324) = .13, p < .72$) and no significant interaction effect ($F(1,324) = 3.09, p < .079$). Madrassah students could not be included in the analysis due to insufficient number of students in one of the groups (n = 4).

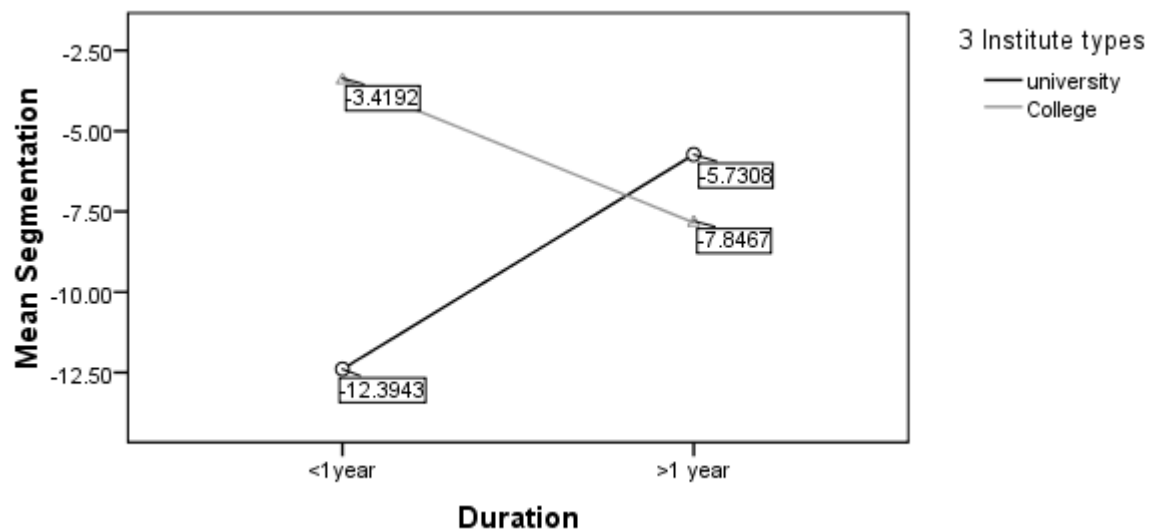
Absolute Mean difference (College) = (after-before) -4.4

Absolute mean difference (university) = +6.7

Absolute mean difference = (university2 – university1) – (college2 – college1) = [-5.7- (-12.4)] – [-7.8 – (-3.4)] = 17.9

Figure 18

Change in Moral Segmentation in university and college students (N = 328)



***Note: Analysis for Madrassah students could not be performed due to insufficient number of participants in one of the groups**

Table 34**Dilemma Solution Agreement**

Mean, Standard Deviation and t value of participants for the acceptance or rejection of workers' and doctor's dilemma decisions (n = 311).

	Workers' Dilemma		Doctor's Dilemma			
	(n = 311)		(n = 311)			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Dilemma Decision Choice	-.18	2.31	-1.61	1.96	8.994	.000
<i>df</i> = 309						

Table 34 shows results of paired samples t-test comparison of participants on the decision choices for two dilemmas. Results are significant, $t(309) = 8.994, p < .000$ that shows that participants reported more disagreement for doctor's decision in comparison to workers' decision.

Figure 19

Dilemma Solution Agreement

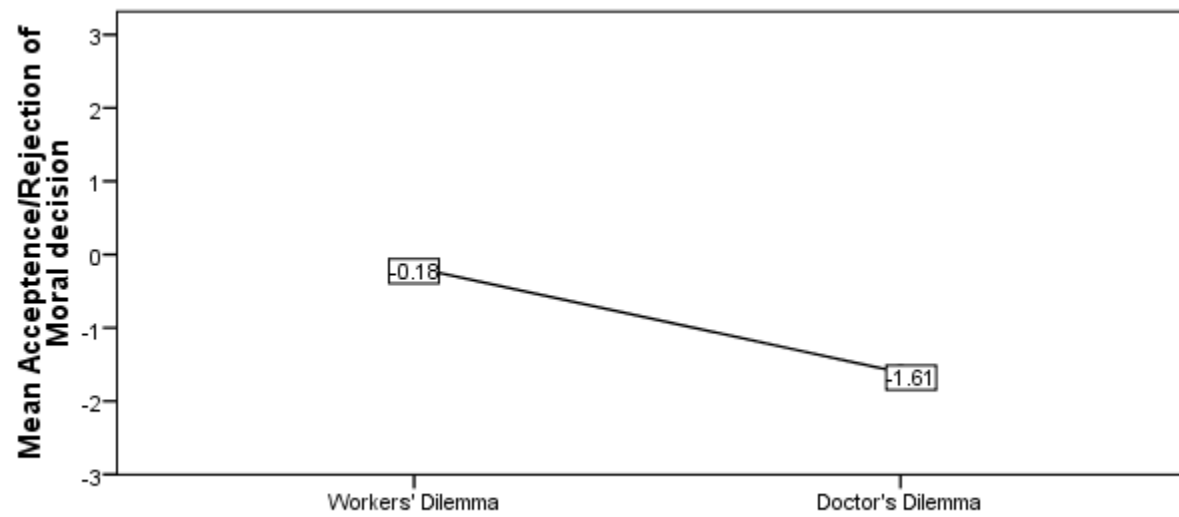


Table 35**Institutional comparison on dilemma solution agreement**

Mean, Standard Deviation and F values of the students of universities, colleges and madaaris for the acceptance or rejection of workers' and doctor's dilemma decisions (N = 328).

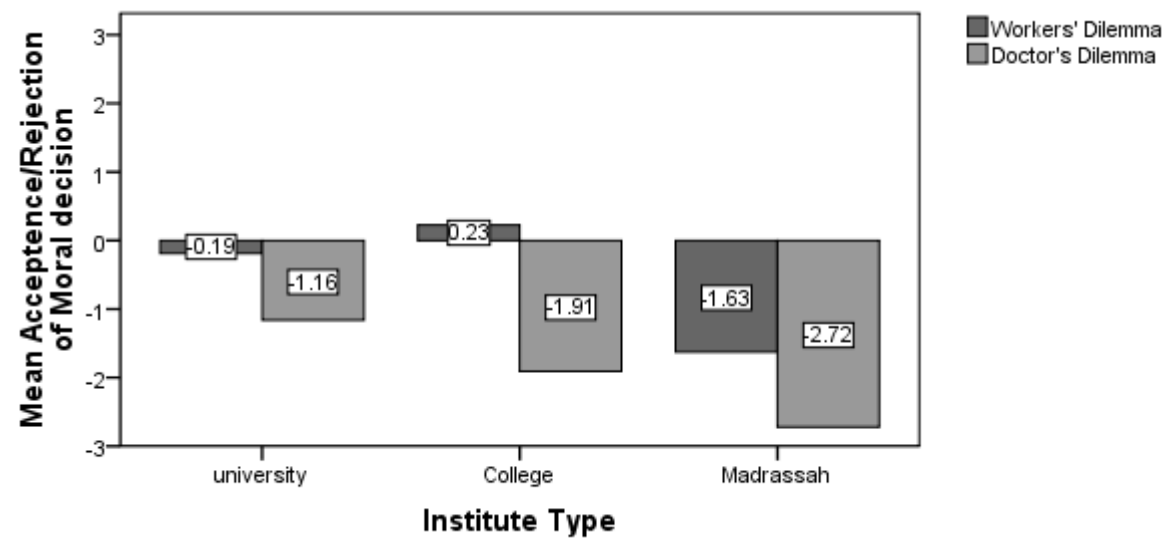
			<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
University	n = 160	Workers' Dilemma	-.19	2.2		
		Doctor's Dilemma	-1.16	2.1		
College	n = 119	Workers' Dilemma	.23	2.3		
		Doctor's Dilemma	-1.91	1.8		
Madrassah	n = 32	Workers' Dilemma	-1.63	2.2		
		Doctor's Dilemma	-2.72	1.2		
Dilemma type				50.6	.000	
Institute type				121.1	.000	
Institute*Dilemma (interaction)				6.3	.002	

Between Group df = 2; Groups total df = 3083

Table 35 shows results of Mixed Factorial analysis of variance comparison of university, college and madrassah students to find out pattern of acceptance or rejection of two dilemma decision choices. Results indicated a significant main effect of dilemma type, $F(1, 308) = 50.6$, $p < .000$, main effect of Institute type, $F(2,308) = 121.1$, $p < .000$) and significant interaction effect of institute type and dilemma type , $F(2,308) = 6.3$, $p < .002$). Pairwise comparisons of between institute differences with Bonferroni correction show only Madaaris to be significantly different from colleges and universities ($p < .05$) with rejection of both dilemma decisions more profound than other institutes. Overall the interaction effect shows that within each institute doctor's decision is more negatively rated than workers' decision which shows more variation of response pattern.

Figure 20

Institutional comparison on dilemma solution agreement



DISCUSSION

The present study was conducted mainly to determine the effect of dogmatic religiosity and educational environment on the moral judgment competence of college, university, and madrassah students. A number of hypotheses were made with several exploratory analyses to get an in-depth understanding of the moral structure of Pakistani society. This work tries to confirm a number of assumptions elaborated in Georg Lind's Dual-Aspect Theory and his concept of role-taking and guided reflection opportunities in the development of moral competence (also known as Education Theory). As Lind's Moral Judgment Test (MJT) is first time validated into Urdu language, this work gets an important place for studying the phenomenon of moral and democratic competencies in the people of Pakistan. Maximum amount of information has been tried to be extracted from the present work. Information was collected from 8 different institutes of Punjab, Khyber Pakhtoonkha, and Islamabad regions. Three universities, two colleges and three madaaris were selected through a non-random stratified cluster sampling technique and a number of designs were used for the purpose of data collection and analyses.

In the present work the Dogmatic and Personal Religiosity Scale and ORIGIN/u Questionnaire showed high Cronbach's alpha and item total correlations reliabilities and appeared to be suitable for use in Pakistani population (Table 1, 2, 3, 4, 5). The results of the present work also provided good support for the three validity criteria of Moral Judgment Test resulting in MJT-Urdu certification as being equivalent to the standard MJT (Table 6, 7, 8, Figures 1, 2 3). As pretest study for ORIGIN/u questionnaire was not conducted due to time limitations, certain problems were observed when some of the queries answered by participants

were contrary to expectations. That is why some caution need to be used while interpreting the results.

The mean c-score of the whole sample is very low (mean c-score = 11.8) in comparison to many studies conducted in other countries including the regional countries of China and Iran. In a study in China (Yang and Wu, 2011), a mean c-score up to 31.4 have been reported while in Iran c-scores up to 20 have been seen (Saeidi-Parvaneh, 2011). In Germany the c-scores have been reported to be about 40 and in Brazil up to 25 (Schillinger, 2006), while in Israel 25.7 and in USA, mean c-score of 23.8 have been observed (Gross, 1996). The low c-scores have already been noted in Pakistani students in a validation study of MJT-Urdu (Wahab, 2011) in which mean c-score of 13.94 was observed. This is a dangerous trend in a democratic country like Pakistan, higher moral judgment competence is the indication of good functioning democracy where people have the capacity to engage in peaceful arguments and make mutual decisions instead of trying to force their decisions on others. According to Lind, “the way actors deal with dilemmas and counter-suggestions is a very good indicator for the actors' ability to solve a conflict by engaging in a peaceful, nonviolent moral discourse rather than using their status and power to coerce others into accepting their convictions” (Habermas 1990, cited in Lind, 2008). The overall lower competence in the whole sample is indicative of low rational discourse ability that might be a sign of a power oriented and authoritarian culture where different interest groups (whether political, religious, or other) consider their own interests as absolutely right and do not want to “talk” about the issues rationally and in a peaceful manner because of the basic lack of the ability to consider one another’s points of view as equally valid as their own. This trend may lead to the development of thinking that the use of force and other authoritarian means for

reaching ends are the only legitimate options. The lower c-scores reflect the present state of Pakistani society in general where violence and extremism is increasing day by day.

Results for hypothesis 1 show a non-significant difference of moral judgment competence between groups with less advantaged and more advantaged educational environments (Table 10, 11, 12). The absolute mean difference between the groups is 1.9 with less advantage group showing higher moral judgment competence. This small effect size is counterintuitive as it apparently contradicts Lind's Education theory and much of the research findings until now (Schillinger, 2006; Lupu, 2009; Saeidi-Parvaneh, 2011). Results from colleges and universities also show insignificant differences but the absolute mean difference for colleges on moral judgment competence is 3.6 with educationally less advantaged students showing higher moral competence. This point need to be considered that on ORIGIN/u questionnaire overall mean score for Role-taking and Guided Reflection opportunities is also very low for the collective sample (Mean = 41.5, on total scale score of 105) and the group belonging to more advantaged educational environment also reported less opportunities of role-taking and guided reflection (Mean = 46.2, on total score of 105). Still the unexpected reversed order is perplexing for the present research and need further exploration. Some limitations in the ORIGIN/u questionnaire have been observed as well that will be described later.

Another difficulty emerged when only 19 participants could be classified on the DPR-Scale as "religiously less dogmatic" in the sample of 403 students. This ratio was very much expected on intuitive basis because of general religiousness of the society and its historical religious development as described in the introduction. The DPR-Scale especially contains questions that ask about fundamental (but dogmatic) aspects of Muslim faith, like belief in God, angels, Quran, marriage in another religion etc. Though certain questions were added that asked

about practical aspects of religiosity (e.g. It is very important to implement Islamic Sharia to bring peace to the world), but on such questions also not much variation was observed, so all of the analyses had to be done with such limitations.

The results for hypothesis 2 of the present research came out to be statistically non-significant with small mean difference of 1.2 without additional items, and 2.5 with additional items. Students with less dogmatic religiosity showed slightly higher moral judgment competence in comparison to more dogmatic students (table 13, 14). Studies by Lupu (2009), and Saeidi-Paraven, (2011) discovered that highly dogmatic students tended to show lower moral competence and Lupu's work suggests that even more role-taking and guided reflection opportunities could not increase moral judgment of highly dogmatic students. This small difference in moral competence in the present sample could also be due to overall very high dogmatic religiosity in the whole sample. Even students classified as less dogmatic got much higher score on the DPR-Scale (Mean = 2.6 out of total of 4), so even these 19 less dogmatic students cannot be satisfactorily classified as very liberal or flexible in their religious beliefs. The overall depressed c-scores in the whole sample might be explained on the basis of type and level of religiosity in Pakistani society. Almost the whole sample looks to be homogeneous and extremely intense in their religious beliefs, which is a problem for doing analyses and getting some true variation on the variables associated with religiosity. Only personal religiosity that is more unsettled approach to religious truths has been found to enhance moral competence (Lupu, 2009), that aspect could not be assessed in the present study because of the homogenous nature of Pakistani population in their dogmatic beliefs.

Hypothesis 3 could not be tested due to insufficient number of students in one of the groups. For hypothesis 4, difference in moral segmentation between religiously less dogmatic

and more dogmatic students came out to be insignificant. Moral segmentation refers to difference in moral judgment competence between two dilemmas. This result can better be explained by looking at separate means of both groups and mean difference between them. The less dogmatic group shows almost no segmentation with mean value of -0.6 while the more dogmatic group shows high segmentation of -7.9 (see table 15, 16). In literature 8 point difference in moral competence between two dilemmas is termed as moral segmentation. This finding more significantly supports the recent work of Lupu (2009) in Romania and Saeidi-Parvaneh (2011) in Iran that suggests that dogmatic religiosity hampers moral judgment competence on those issues on which clergy has more strict rulings. That is why dogmatic religious people tend to show lower competence on euthanasia dilemma (which is a more sensitive life and death issue) than workers' dilemma (dealing with theft which is less sensitive than a life and death issue). Lind (2003) also described a study conducted in Mexico, Brazil and Columbia where the Church has strong rulings against mercy killing; he found a high segmentation in these Latin American countries as well.

Hypothesis 5 is not supported by the findings of the present study (Table 17, 18, Figures 4, 5). A gain of only one c-score was observed in university students with more advantaged educational environment (Absolute Effect Size = 1) over students with less advantage educational environment while college students showed a loss of 0.6 scores. This is very small effect which shows that universities are contributing very less in the development of moral competencies and colleges are performing even worse.

The findings of the present research support hypothesis 6 with every group showing almost same pattern of preferences for six moral orientations (Table 19, 20, 21, Figures 6, 7, 8, 9). Students differing in religiosity and educational environment and belonging to different

institutes showed more preference for postconventional than preconventional arguments which confirms findings of many studies done in the past (Lind, 1986; Schillinger, 2006; Saeidi-Soudabeh, 2004, Lupu, 2009; Saeidi-Parvaneh, 2011, Wahab, 2011). The MJT has been translated into 39 countries throughout the world and this consistent pattern of moral preferences has been observed in all those varied cultures. This finding contradicts some cognitive developmentalists' claim that more dogmatic people tend to reason at stage 4 more than postconventional stages 5 and 6 (Kohlberg cited in Richards and Davison, 1992; Narvaez et al., 1999; Rest et al., 1999, Ishida, 2011). In this study and in many others even religiously more dogmatic groups (that is almost the whole sample) showed more preference for postconventional arguments than other arguments. Only Madrassah students have been observed to prefer stage 3 orientation more than other moral orientations which is difficult to answer in this study that is first of its kind.

Hypothesis 7 finds a partial support in this study. Lind's dual-aspect theory (2008) suggests that c-scores show significant negative correlation with lower moral orientation and significant positive correlation with higher moral orientations. In the present research only higher moral orientations (i.e. 4, 5 and 6) found to be having significant positive correlation with c-scores while preconventional orientations and conventional stage 3 orientation showed no correlation at all (Table 22, Figure 10). However these results are showing comparatively better correlation values than the previous work of the author (Wahab, 2011). Due to very low mean c-score of the whole sample getting very accurate correlation values appears to be a difficult task.

Hypothesis 8 of the present research got support as the preferences for six moral orientations show a predicted simplex like structure (Table 23, Figure 11). This finding is consistent with basic postulates of Lind's dual-aspect theory and is also with the basic validity

criterion of MJT. This finding supports other validation studies as well that have already done in varying cultures.

A number of exploratory analyses were done in order to better understand the data and to extract maximum information for future hypothesis formation based on this study. Institutional comparison was done separately for all institutes and also for three clusters of universities, colleges and madaaris to see the level of moral judgment competence in different educational setups (Table 24, 25, Figures 12, 13). Madrassah students were found to be significantly lower on moral competence (Mean = 4.36) in comparison to college and university students. College and university students got almost identical mean c-scores of 12.70 and 12.96 respectively. As already described these c-scores are very low in comparison to many international studies done on the subject. In the previous study by the author of the present work (Wahab, 2011) data from schools (grade 8 and 10) and colleges (undergraduate and graduate students) were gathered while the present study is specifically gathered information from graduate students. The previous and the present work show almost similar range of c-scores in both data from schools and now from colleges and universities. This lack of difference is quite strange as it is expected that higher learning institutes like colleges and universities contribute a lot better in fostering rational abilities and autonomous thinking skills in the students in comparison to schools. It seems that public sector universities and colleges in Pakistan are quite deficient in developing in students that level of independence of thought which is expected from those institutes. Madrassah graduate students have found to be extremely deficient in this competence. This finding further strengthens the claim made by studies done on the effect of religion on moral competence. Madaaris are the places that are the center of religious knowledge where students spend larger part of their day indulged in studying Sharia and related subjects. In madarasah students'

thinking and conduct religion has a special place in comparison to students belonging to relatively more secular schools, colleges and universities. According to Saeidi-Parvaneh (2011) not only religious beliefs but also the religious context can lower the moral judgment competence. The present work provides some support to this notion, on one hand, madarassah students who have a direct exposure to religious education got the lowest c-scores, while on the other hand the students from colleges and universities when compared to international studies done in more secular countries show a comparative deficiency in moral judgment competence. This also shows the cultural dimension of Pakistani society as explained by Narvaez et al. (1999) and is also consistent with Bataglia and associates' (2002) description of orthodox cultures as the c-scores showing a clear segmentation as well. Lind's (1986) findings from more conservative and orthodox eastern European countries and more democratic and liberal western European countries also indicate the same thing. Moral segmentation has also been noted in all three clusters (Table, 31, Figure, 16) with university students showing the highest and college students showing the lowest. The segmentation in all groups further strengthens the notion of orthodox cultural phenomenon explained above. According to Lind (2000c) religiously oriented subjects usually suppress their autonomous thoughts on which the Church has a strong stance, this description looks to be more appropriate for madrassah students who have a direct exposure to formal religious education and who remain concerned about religious decrees and injunctions for day to day matters. College and university students though strongly holding dogmatic religious beliefs are not expected to remain extremely concerned about direct religious decrees for their everyday conduct that is why the presence of moral segmentation in college and university groups tells more about the *internalized* religious values working as an internal authority. Lind (1986) has explained this internal aspect in these words, "the segmentation phenomenon seems

to indicate that internalized rules (super-ego) rather than external social pressure constrain the use of autonomous moral judgment.” Institutional comparison on the choice of the decision was also compared on two dilemmas (Table 35; Figure 20). Within each institute doctor’s decision in euthanasia dilemma is more negatively rated than workers’ decision in workers’ dilemma. Madrassa students have shown extreme rejection of doctor’s act (mean = -2.72) while university students showed more flexibility of judgment (mean = -1.63). According to Lind (2003) extreme stance on moral dilemmas have been found to show lack of autonomous thinking that is indicative of less moral judgment competence and more segmentation of c-scores. People with more autonomous thinking show a flexibility of thought in making a decision and do not opt for extreme judgments, while those who are controlled by some authority, external or internalized, go for an extreme view without bothering to think about the issue themselves. Schillinger-Agati and Lind (2003) also found in Brazilian sample lower c-scores for those students who had more extreme opinion about solution to euthanasia dilemma. In the present study madrassah students who held the most extreme views regarding decisions made in dilemmas showed the lowest moral judgment competence which might confirm Lind’s assumptions.

Though educational environment appeared to have no rather slightly negative effect on moral judgment competence, it shows a positive effect by reducing moral segmentation (Table 32; Figure 17). Students of less advantage educational environment showed extremely high segmentation (-18.4) in comparison to educationally more advantaged students (-5.3). The role of universities has also been found to be very positive in reducing moral segmentation while college students showed a negative trend with increase of segmentation with the passage of their studies (Table 33; Figure 18). Universities in Pakistan with all the deficiencies (Rahman, 1998, 2004; Hamidullah, 2005) are much better places in comparison to colleges. Universities are

much spacious places with separate faculties, academically trained staff, more research opportunities, and availability of basic facilities like internet and access to research journals. Universities generally provide more cultural exposure to students nationally and internationally through seminars, workshops and conferences, most of the universities provide co-education which is another significant dimension added to the richness of experiences. Almost all of that is lacking in colleges in Pakistan. Public sector colleges are less developed, underfunded institutes with traditional methods of frontal teaching, no access to research journals, and limited cultural exposure. In the present study universities when comparing with colleges showed signs of stability if not improvement of moral judgment competence while colleges showed regression in moral competence (absolute Effect Size = 3.2; see Table 26; Figure 14). No significant difference in Bachelor and Master students in moral competence was observed (Table 28) while students of almost all disciplines showed similar pattern of moral competence except Sharia and Hadees students who showed the lowest moral competence (as the Sharia students belonged to madaaris so it was difficult to isolate the effect of the discipline with other factors associated with madariss) (Table 27; Figure 15).

Though no gender differences in moral judgment competence were observed when only university and college students were compared, the female students showed high segmentation in comparison to males (that is -10.3 in comparison to -4.9; Table 29, 30). This finding needs more consideration because on dogmatic religiosity no gender difference was observed. For females showing more incompetence in dealing with euthanasia dilemma could be due to several other factors in addition to religiosity. Euthanasia dilemma being a life and death issue generally appears to be quite perplexing even when religiosity factor is ignored. Carol Gilligan's description of ethics of care applies more to euthanasia issue than to a stealing act performed by

workers in the other dilemma. Having a very impartial and balanced opinion on a matter dealing with life and death appears to demand more maturity of thought and presence of well-trained intellect because of its extreme emotional significance. In comparison the stealing task appears to be less demanding where rational and impartial decision making is easier. Though emotional sensitivity was not measured in this research, following Gilligan's descriptions it might be an explanation for females showing more segmentation than men.

Conclusion

Some homogenous trends were noted in the sample, very high religious dogmatism was observed and overall moral judgment competence in the sample was found to be very low. Dogmatic religiosity was found to be having some negative effect on moral judgment competence. Madrassah students were found to have lowest c-scores. Moral segmentation was observed in the data which is an aspect typical of conservative societies. Contrary to expectations the educational environment found to have no direct impact on the moral judgment competence but it produced positive impact in reducing moral segmentation. Universities were found to play some positive role in giving stability to moral judgment scores and reducing moral segmentation while colleges seemed to induce moral regression and more moral segmentation. On moral orientations similar universal pattern of moral preferences was observed for all groups as depicted by earlier work. People in general supported postconventional arguments over preconventional and conventional arguments.

Apparently, the role of higher educational institutes in Pakistan (at least the regions from where data is collected) appears to be unproductive. The higher learning institutes in any society are the breeding places where such an intellectual elite is produced that is more equipped with

knowledge and skills to effectively deal with problems of daily lives. People from higher learning institutes are mostly recruited to the posts of national importance where they have to involve in complex decision making activities. Any country with a democratic constitution cannot have a stable and democracy without its citizens being trained in the democratic process. Democracy is a delicate system that puts much responsibility on the citizens themselves. In authoritarian states much of the decision making is done by the ruling elite and people in general need not bother about state functioning, but in democratic countries people have to involve in decision making as the country is supposed to be run by the elected representatives. In a democratic country different interest groups have their own stakes and it is not possible that some particular group, on the basis that their own ideology is absolutely right, simply ignore others. People have to create a delicate balance by engaging in a continuous process of mutual discourse on issues of importance. In a democratic system these engagements are expected to be peaceful and flexible, in which every opinion should be given a respectful place. Moral judgment competence which is also a democratic competence is central to achieving these ends as it is the ability to assess others' opinions about important issues in a more balanced manner in which quality of the arguments are given more importance than egocentric interests. If a democratic society lacks this basic ability of discourse then it is prone to violence when deciding on issues. The members of such societies care more for their own interests disregarding other groups due to their basic lack of ability to understand each other's points of view. The present study shows that people in general give highest importance to postconventional arguments. This is the brighter side of the picture as the moral values in Pakistani society appear to be same as most of the other democratic countries. It's a universal pattern of values observed in more than 40 countries where MJT research have been done yet. It is only the competence aspect on which the data show a

stagnant trend. Too much emphasis on religion appears to be a contributing factor in lowering the moral competencies as well. The ideological basis of the country provided a way for different governments in Pakistan - whether democratic or military dictatorships- to make state defined religion as the integral part of school and college curriculum. The curricula are replete with religious references and even physical science subjects that are supposed to be impartial make no exception. This is a state of grave concern about the role and nature of religiosity in Pakistani society because in a constitutionally democratic country decision making is based on considering different points of view and that necessarily requires flexibility in approach which looks not achievable with a level of religiosity so high that any new idea which should be given proper place for consideration is rejected on the notion that it is threatening to ideological foundation of the society.

Limitations and Suggestions

1. As the pretest study for ORIGIN/u questionnaire was not conducted. The findings reported by this questionnaire need to be interpreted with caution especially considering the fact that people with less role-taking and guided reflection abilities showed more moral competence which is quite counterintuitive.
2. The role-taking and guided reflection opportunities need more elaboration. ORIGIN/u is a questionnaire that does not measure some psychological trait which can be considered as universally existent irrespective of on ground conditions. Instead the ORIGIN/u measures practical institutional opportunities which are very concrete in nature and can vary from one institute to other depending on its sources and so many other things. It is observed that the questionnaire only asks about availability of different opportunities but lacks in assessing the real nature and quality of the roles.

3. As the test lacks the assessment of the quality of opportunities, the same answers from college, university and madrassah students do not necessarily mean the same thing as among these institutes there are so many differences related to basic infrastructure, type and nature of curricula, expertise of staff, and so forth. Same is the case with comparing the findings from ORIGIN/u in this study to other international studies using the same questionnaire. So there is a need for improvement in the ORIGIN/u questionnaire in such a manner that each role and each reflection opportunity should be fully described with specific details of the activities involved.
4. This study was conducted in the public sector institutes of Punjab, Khyber Pakhtoonkha, and Islamabad regions. In order to make this work more externally valid studies of this kind are important to be conducted in other parts of the country as well.
5. A small sample could be collected from madaaris ($n = 50$) in comparison to colleges and universities, more diverse and larger sample of madrassa students is emphasized for the future work in order to have a better and more meaningful understanding about the competencies of madrassah students.
6. Extremely low c-scores are a threatening trend in a democratic country like Pakistan. Interventions are needed to develop in people the rational abilities needed for a stable and continuing democracy. A method developed by Georg Lind named as the Konstanz Method of Dilemma Discussion (KMDD) has been found to be very effective in developing moral and democratic competencies in people (Lind, 2006). This method involves discussion on variety of moral dilemmas in a peaceful environment of mutual respect under the supervision of certified teachers or instructors. Such interventions are

extremely necessary to be introduced in Pakistan where the democratic system is yet in its formative stages.

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FOOTNOTES

¹Source: Ministry of Education: www.moe.gov.pk/soedusyspk.pdf

²Full curriculum of Madarris of Deoband can be seen at: <http://www.darululoom-deoband.com/english/>

ANNEXURE I

DEPARTMENT OF PSYCHOLOGY, INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD

Informed Consent Form

I am student of MS Psychology and conducting research to explore the effect of dogmatic religiosity and educational environment on the moral judgment competence of the students of universities, colleges, and madaaris. Your views will help us in determining this relationship among variables. All informations will be used purely for purpose of the scientific research and your support will help us to understand the phenomenon.

We assure you that information given by you will be treated as strictly confidential and will be used only for research purpose. Your help/ support and honest participation will highly be appreciated.

I am willing to participate in the study

Signature: _____

Thank you for your participation in the research.

Dogmatic and Personal Religiosity Scale (DPR-Scale)

۱۲۔ کوئی بھی معاشرہ جہاں اسلامی شرعی اصول نافذ نہیں آخر کار زوال پذیر ہوگا۔	1	2	3	4
۱۳۔ انسان کے تمام مسائل کا حل اسلام میں موجود ہے۔	1	2	3	4
۱۴۔ دنیا میں امن و سکون لانے کے لیے دنیا میں اسلامی شریعت کا نفاذ ضروری ہے۔	1	2	3	4
۱۵۔ موت کے بعد کا فریبیش کے لیے جہنم میں جبکہ مسلمان کبھی نہ کبھی جنت میں ضرور جائیں گے۔	1	2	3	4
۱۶۔ میں موت کے بعد زندہ ہونے پر ایمان رکھتا ہوں۔	1	2	3	4
۱۷۔ میں عذاب قبر اور برزخ کے تصور پر یقین رکھتا ہوں۔	1	2	3	4
۱۸۔ میں اس بات کو مانتا ہوں کہ انسان کی اچھی یا بری تقدیر کا فیصلہ اللہ تعالیٰ کرتا ہے۔	1	2	3	4
۱۹۔ میرے نزدیک کوئی بھی شخص جو خدا کو نہیں مانتا اخلاقی طور پر بہتر نہیں ہو سکتا۔	1	2	3	4

