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The Social Interdependence of Moral Development: an exploration of two theoretical models in order to create empirical bridges between them.

“We must create schools that honor the inherent cooperative and communal spirit of the young child, filled with spirit, creativity, and endless curiosity.” (Roeper, 1990).

“Schools need to be places of whole people and whole communities, where everyone regardless of age is continually learning and growing not only as an individual but also as part of the cooperative whole.” (Nakagawa, 2000).

Introduction:

Moral development theory and social interdependence theory have been developed and have functioned in relative isolation from one another. The literature has treated these two theories as distinctly different areas of research. When examining the seminal review papers; (Johnson & Johnson 1989, Rest, 1976, and Lapsley, 1996) there is little if any overlap present. There has been little effort to examine the similarities and potential synergy between these two theoretical frameworks.

Moral development theorists have posited a relationship between cooperation and moral development; (Kohlberg 1972, Rest 1976, and Lapsley 1996). The concept of social cooperation appears repeatedly in fundamental theories of moral development. The primary moral development theorists (Kohlberg 1972, Rest, 1976, and Lapsley, 1996) take a macro-level position on

cooperation defining social cooperation as a way for people to work with one another in order to maintain social order, social values, and social cohesion. Piaget (1965) defines cooperation from a more micro-level, as the process by which children “co-operate” on a given project or activity in order to support one another in successfully completing the specific task. The fundamental presence of cooperation as a term in the moral development literature has not led to empirical investigation of the role of cooperation in the process of morally developing.

Social interdependence theorists have focused much of their empirical research efforts on other variables, such as achievement and student motivation, with little empirical effort having gone into investigating any variables related to moral development. Social interdependence theorists beginning with Deutsch (1949) have posited a relationship between classroom cooperation and increased values attainment of students. Deutsch (1949) explicitly outlines some core values that he proposes cooperation supports and even amplifies in people; including mutual understanding, perspective taking, and other cooperative values. The theoretical links in Social interdependence theory with moral development theory have not been empirically investigated, rather remaining only in the theoretical realm up to now.

In reviewing the literature there actually is a strong synergy between moral development and social interdependence. However there are two problems in relationship to building a bridge between these two theories that allows for the empirical establishment of the synergy between these two theories. One problem

is a lack of empirical evidence that cooperation really does have a positive influence on people's moral development from the social interdependence theory perspective. The second problem is that moral development theorists have not explored the role of cooperation in the process of people engaging in moral thought, action, motivation, and sensitivity. So two key goals of this paper are to increase the empirical evidence linking these two theories and to strengthen the core theoretical connection between moral development and social interdependence theory.

In this paper moral development theory and social interdependence theory will be compared. Through this review a strong potential synergy between the two theories will be established. This review will firmly illustrate the complimentary dynamics in these two theories and explore how these complimentary portions can be applied to collaborative research. The establishment of a collaborative theory base for further empirical investigation into the social interdependence of moral development is critical to this paper. The theory of moral development and social interdependence theory will be outlined and reviewed from a historical and practical perspective. The literature on the two theoretical models will be reviewed in order to create the fundamental elements for bridging these two theories and opening the way for future empirical research on the synergy of these theories. The limited literature that exists relating to moral development theory and social interdependence theory as they are connected to one another will be reviewed and commented on. Finally a proposal

will be made for a study to empirically investigate the links between social interdependence and moral development.

Background information

The theoretical frameworks behind social interdependence theory (cooperative learning) and moral development theory (moral education) both stem from similar societal conditions in the early twentieth century. The conflict and turmoil in Europe and others parts of the world around World War I and then later the horrors of World War II triggered two parallel sets of researchers to seek theoretical solutions to better the world (McClellan, 1999). One set of researchers building on the research of Dewey and Piaget took the path of studying the cognitive development of moral skills (McClellan, 1999). The path of moral development eventually became associated with Dr. Lawrence Kohlberg and his comprehensive model of moral reasoning; which includes a developmental model of the stages of moral reasoning (Kohlberg, 1969).

The parallel set of researchers built on the work of the early Social Psychologists, focusing in the direction of cooperation, competition, and individualism beginning with the work of Dr. Kurt Lewin. The Lewinian line of Social Psychology moved deliberately in the direction of the benefits of cooperation and conflict resolution through the research of Dr. Morton Deutsch (Deutsch, 1949). Interestingly when reviewing the theory and literature of moral development a common term used through out all of these writings is social cooperation; which is the cornerstone of cooperative learning theory.

These two lines of research remained parallel well into the late 1990's; when some researchers who were implementing moral education programs began to realize that cooperative group work was a great way to carry out moral dilemma discussions with students (Carr, 2002) . Despite the break in the parallel nature of these two lines of research, little empirical research has been done to examine the relationship between social interdependence theory and the moral development theory in the development of students. The examination of how social interdependence influences the moral development of elementary school students is the aim of this research study; it is in many ways a starting point into the examination of the interplay of how social interdependence interfaces with moral development.

This paper will also examine the theoretical overlap of two teaching techniques that come out of cooperative learning and moral education, constructive controversy and moral dilemma discussion. These two educational techniques both stem from the social constructivist framework of classroom learning, although they each have their own co-existing theoretical frameworks. Constructive controversy stems out of social psychology in general as well as the specific social psychological theory of social interdependence theory and the related theory of conflict (Deutsch, 1949). Moral dilemma discussion stems out of Piaget's theory of Equilibration (Lazzaro & Gallagher, 2002) as well as Kohlberg's theory of moral education through dynamic discussion (Kohlberg & Mayer, 1972). The aim here is to illustrate the potential benefit of merging

constructive controversy with moral dilemma discussion in order to optimize the influence of cooperation on the moral development process.

Definitions:

The following is a list of key definitions for comparing and connecting social interdependence theory and moral development theory.

Moral development is the process of growing psycho-socially in terms of how you relate to ethical issues in the society that you live in and how you relate to it. *Moral development* is in other words the manner that people are able to internalize values and mores related to choices they make in their life (Rest, 1979). In the most applied form *moral development* is the way that a person is able to process real life moral or ethical situations in relation to four sub-components of morality; reasoning, sensitivity, motivation, and action (Rest, et al., 1999).

Altruistic behavior and the broader concept of altruism are related to a person's ability to transcend the self or act in a non-selfish fashion (Eisenberg-Berg, 1979a). *Altruistic behavior* is generally defined in terms of how willing a person is to make a personal sacrifice in order to benefit another or society as a whole (Eisenberg-Berg, 1980). In its most applied sense *altruism* is how often or how motivated a person is to help others (Lapsley, 1996).

Prosocial behavior can be broadly defined as any action that one person or group of people does in order to increase the social climate of their surroundings (Lapsley, 1996). *Prosocial behavior* is often defined in terms of the

willingness of a person or people to work cohesively with one another (Eisenberg-Berg, 1979b). In its most applied sense *prosocial behavior* is any action that someone does in order to make the society (or the classroom) they live in a better place to be (Lapsley, 1996). These terms come out of the broader literature for both moral psychology and social interdependence theory; they will be used through out this paper.

Social Interdependence Theory:

Social Interdependence theory has its roots on the early days of Social Psychology; it is a theory that very explicitly looks at how people relate to one another. The theory is embedded in the early research of Kurt Lewin and was later crystallized by Morton Deutsch in his research looking at the impact of cooperation and competition in creating positive social relationship (Deutsch, 1973). Social Interdependence theory in its most applied sense deals with issues of cooperation among human beings (Johnson & Johnson, 1989). As an extension of cooperation and positive interdependence in human relationships, this theory also has implications for the foundation of what it means to be a good citizen. Social Interdependence theory creates the foundation for creating citizens who respect one another and the implications of their actions on the rest of humanity.

In this paper the social interdependence theory being used is the model created by Deutsch (1949) and later elaborated upon in his Nebraska symposium piece (1962). The applied aspect of social interdependence being used in this

paper is the cooperative learning model of Johnson and Johnson (1984/1998) and this model of cooperative learning will be used as the framework for this comparison.

First some background information and definitions of the key terminology. There are three basic forms of social interdependence which are found in schools and other organizations: cooperation, competition, and individualistic (Deutsch, 1949). Deutsch (1962) defined cooperation as the combination of positive social interdependence, mutual goals and mutual objectives among a group of human beings. Deutsch (1962) also outlines three key dynamics of social interdependence and cooperation; substitutability, inducibility, and cathexis. Cathexis is the investment of emotional energy into a situation; this is a term that stems from the work of Tolman who was a learning theorist and Freud who was likely the originator of the term cathexis. A classroom using individualistic social interdependence focuses on the isolated individual efforts of each student; there is no interdependence of goals or outcomes between students (Johnson, 2000). A competitive classroom is one where there is negative interdependence between the students; the perception is that students must be better than one another in order to achieve their goals (Johnson, 2000). A cooperative classroom is one where there is positive interdependence between students in terms of goal accomplishment; a feeling of having to work together to make learning happen occurs in the cooperative classroom (Johnson, 2000).

The following are the five basic elements of cooperative learning in the Johnson (1984/1998) model of cooperation in the classroom. The first element

and the primary cornerstone of this model is positive interdependence; this occurs when individuals perceive themselves as a vital part of a team where everyone is needed in order to accomplish the goal(s). There are various ways of achieving positive interdependence in a classroom, four of which are: making mutual goals, establishing joint rewards, creating a situation where the group has shared resources, and assigning roles to group members. The second component of cooperative learning is individual accountability where each member of the group knows that they are responsible for the group's success and will be individually accountable for the groups work. The third aspect of cooperative groups in a classroom is having students work "face to face, and knee to knee" (Johnson, 1984) or in other words for the group to work in physical proximity to create promotive interdependence. The fourth component of cooperative groups is the existence of interpersonal and small group skills; these skills need to be fostered in students in order to maximize cooperative learning in a classroom. The fifth and one of the most overlooked elements of cooperative groups is the need for group processing; in order to optimize groups the groups need a chance to reflect on their work together and work for continuous improvement of their group.

The above model is one of several currently empirically validated frameworks for cooperative learning. Although all aspects of cooperative learning stem from Social Interdependence theory and Duetsch's (1949 and 1962) work on cooperation (and competition) the field has ironically grown into a field with competing models that all show strong empirical results. In order to be fair I will

outline the basic information and the key researchers for the other cooperative learning methods. Slavin began his work in the realm of social interdependence and cooperative learning as an apparent foe of cooperation (Slavin, 1977, 1980, 1983) with his research illustrating individualistic efforts provided higher achievement results than either cooperation or competition. Slavin's model for cooperation centers around the creation of student teams specific to a given activity or subject (Slavin, 1977, 1981, 1984) and has evolved into a model that promotes cooperation combined with individualization. Slavin and his colleagues have developed two key models of modified cooperative learning; Student-Teams-Achievement-Divisions (STAD) is a combination of cooperation and Intergroup competition (Slavin, 1980) and Team –Assisted-Instruction (TAI) is a mixture of individualistic and cooperative work (Slavin, Leavey, and Madden, 1982).

Aronson is credited with the development of a very specific cooperative technique called the Jigsaw procedure, where students cooperatively share their resources a form of resource interdependence coupled with an individual reward structure (Aronson, et al., 1978). The jigsaw technique in one form or another is very widely used to get students actively involved in the learning process by sharing their resources and knowledge with one another, often by moving around the classroom and teaming up with others with different resources and knowledge.

DeVries and Edwards (1974) developed a modified form of cooperative learning that is a combination of cooperation and intergroup competition called

Team-Games-Tournament (TGT) developed another modified technique of cooperative learning. These alternative models of cooperative learning have been used and empirically tested since the early 1970's, but none of them are valuable alternatives for the purpose of this research inquiry into the connection between cooperation and moral development. The Johnson and Johnson model is the purest form of cooperative learning and thus it is the one that will be used in the remainder of this research.

Moral Development Theory:

The idea of moral development came to the forefront in psychology during the nineteen sixties with the research of Kohlberg. Kohlberg developed a rather comprehensive theory of moral development, based upon the idea of stages of moral reasoning, six stages to be specific (Kohlberg, 1972). Much like other developmental stage theories, Kohlberg (1972) envisioned each stage as a step in the process of development, from the lowest level of pre-conventional moral thought up to the most post-conventional stage of moral thinking. Kohlberg has been frequently criticized for what many have seen as gender bias in his moral stages, his work has been questioned for a variety of other reasons that would take more time than is available here to go into (Gilligan, 1982). For our purposes, Kohlberg is the foundation of moral reasoning theories, and the work of Rest and the related work on the DIT (defining issues test) will be the more specific moral thinking paradigm (Rest, 1999). Rest and his colleagues developed a standardized test to evaluate where people and groups are at in terms of their

moral thinking (Rest, 1979). The key departure from Kohlberg, aside from using standardized test rather than interview techniques, was in the evolution of a moral development model that uses schemas instead of stages (Rest, 1979). There are a variety of empirical as well as philosophical reasons that Rest (1979) departed from Kohlberg's stage metaphor; critical to our discussion is the softer boundaries of the schema allowing for more fluid movement among the various schemas. The schemas as they exist in current research are set up as three levels of moral reasoning (Pre-conventional, Conventional, and Post-Conventional) with the schemas contained within these levels that encompass much of the fundamental information from Kohlberg's stages (Rest, 1979). The three levels are: personal interest or pre-conventional moral thought, norm maintenance or conventional moral thought, and higher order moral thought or post conventional moral thinking (Rest, 1979). Each of the levels contains moral development schemas; Pre-conventional contains schemas one, two, and three, Conventional contains schema four, and Post-Conventional schema five and six (Rest, 1979).

Another valuable model in moral psychology research is Rest's (1999) *four-component model* that explores the inner psychological processes involved in moral reasoning. The *four-component model includes the following four processes; moral sensitivity- the ability to know when a moral problem has arisen, moral judgment- knowing what action would be most moral, moral motivation- commitment to morality, and moral character- persistence to maintain morality*. One last thought on defining moral reasoning; moral reasoning is a set

of skills that allow a person to process and make decisions in the arena of morality and ethics (Rest, et al., 1999). Post conventional moral thinking is a higher order set of reasoning processes that allow a person to transcend the laws or rules of the society they live in to make ethical decisions that are based on more universal moral rules or choices that are "for the global good" (Rest, 1979).

Moral psychology did not arise as a domain in psychology until the mid-twentieth century (Lapsley, 1996). Much of the major research in Moral development came from researchers who were in one way or another touched by the atrocities of the Holocaust of World War II (McClellan, 1999). This connection to the horrors of World War II, lead to a great deal of research connected to a pursuit of a society that is filled with more justice and a deeper understanding of what creates people who are more justice oriented in their reasoning skills (McClellan, 1999). From the earliest days of moral psychology research there was a great deal of tension in the direction that the research would take and the clarity of the research in terms of application to real life (Lapsley, 1996). To summarize the history of Moral psychology and Moral development theory the following section contains a selection of key researchers in the field.

History of Moral Development Theory

Piaget (1965) is most well known for his hard stage theory of childhood sensorimotor development; this was a major contribution to what is known as Developmental Psychology. In Addition to his theory of sensorimotor

development, Piaget was considered a major contributor to the early development of Moral Reasoning theory (Piaget, 1965). Much of Piaget's work was in the area of cognitive development and his four-stage theory of childhood development was the basis of later moral reasoning stage theories and other related ideas (Piaget, 1948). Piaget is predominately identified with his connection to cognitive psychology, but he also spent time studying the moral development processes of children and how this information might apply to a basic theory of human moral development (Piaget, 1965). The most critical contribution that Piaget offered to later moral development theories is his notion that individuals progress from the stage of external morality, where rules are enforced by external authority figures, they move to the stage of autonomous morality, where individuals see morality as rational and reciprocal (Piaget, 1965). Piaget also contributed the idea of "hard stages" or set steps that people must developmentally reach and then move into the next stage without any defined overlap between the various levels (Kohlberg, 1972). This notion of the "hard stages" had a profound influence on the early research on moral development and later became one of the points of controversy in moral psychology (Rest, 1979). A final note on Piaget is his definition of cooperation; for Piaget this term was related to children "co-operating" in a given situation in order to support their individual construction of knowledge.

Kohlberg's theory of moral development was influenced by Piaget's work in a variety of ways (Kohlberg, 1972). Kohlberg's research focused around presenting people with moral dilemmas- problems requiring moral decisions-

and, on the basis of their responses to these dilemmas he developed a classification system for the description of the process of moral reasoning (Kohlberg, 1969). The primary thing that people know about Kohlberg is that he created a six-stage model of moral reasoning (McClellan, 1999). This stage theory grew out of his in-depth study of Piaget's four-stage cognitive development model of children and his evaluation of Piaget's external and autonomous morality (Kohlberg, 1969). Kohlberg was consistent with Piaget in that he asserted that as children develop they form ways of thinking through their experiences, including such moral concepts as: human rights, equality, justice, and human welfare. Kohlberg divided his theory into three levels and six-stages (Kohlberg, 1972). The foundation of Kohlberg's stage theory is Level 1 Pre-conventional moral reasoning with Stage 1 Obedience/Punishment orientation and Stage 2 Individualism/Exchange. Kohlberg (1972) presented the idea that at the pre-conventional level people make egocentric moral decisions; decisions based upon their own personal wants and desires or more simply put what they individually want or need (Kohlberg, 1972). The second or middle section of Kohlberg's stage theory is Level 2 Conventional moral reasoning with Stage 3 Interpersonal Harmony and Stage 4 Law and Order. Kohlberg (1972) suggested that at the conventional level people shift their moral thinking to what the consequences are for other people, generally those people that they have an established interpersonal relationship with or tie to as a member of the society. The top most part of his stage theory is Level 3 Post-conventional moral reasoning with stage 5 Social contract/individual rights and Stage 6 Universal

principles (Kohlberg, 1972). Finally, Kohlberg (1972) suggests that at the Post-Conventional level of moral reasoning, the reasoning becomes focused on the principle behind the decision to be made. Kohlberg suggested that conventional reasoning requires concrete operational thinking skills (from Piaget's theory; Piaget, 1965) and that post-conventional moral reasoning requires formal operational thinking (Again from Piaget's theory; Piaget, 1965). Even though Kohlberg based his theory on Piaget's work he defined cooperation in different terms than did Piaget; Kohlberg defines cooperation in terms of social collaboration in order to gain social order.

Gilligan (1982) felt that Kohlberg's theory was biased against women and others who were not motivated by the morality of justice. She proposed an alternative that allowed people to be motivated by the morality of care (Gilligan, 1982). Gilligan (1982) established what could be considered a feminist theory of moral development, but in the end, she was not able to empirically counter any of Kohlberg's research findings. Gilligan (1982) has fueled debate in the moral psychology arena since her criticism of Kohlberg first came out, well into the 1990's Gilligan was still being debated in some sub-sections of the broader social sciences (Lapsley, 1996). At this point in the early twenty-first century, Gilligan has been mostly discredited or at least disregarded by the majority of social scientists and close to all of the Moral Psychologists (Lapsley, 1996).

Rest (1979) studied with Kohlberg and went on to develop the Defining Issues Test or DIT that was the first fully validated, reliable standardized test of moral reasoning. Along with the DIT Rest (1979) developed a schema theory that

modified Kohlberg's hard stages into a softer set of moral schema's. The moral schema theory maintained the three levels created by Kohlberg, but changed the stages into schemas. Rest (1979) moved Kohlberg's stage three into the pre-conventional schema and only kept the Law and order or stage four in the conventional moral reasoning schema, the post-conventional schema maintained Kohlberg's configuration. Rest (1979) also developed a Four-component model of moral development that moved beyond the strictly cognitive aspect of Kohlberg's moral reasoning theory. Rest's (1979) four-component model includes: moral sensitivity, moral motivation, moral reasoning, and moral action.

Vygotsky is not often included in the discussion of moral development, perhaps predominately because very few have tried to follow his social constructivism theories with empirical research on how it could illicit positive moral development. Vygotsky may well be the missing link between cooperative learning and moral development, since unlike Piaget he believed social interdependence to be critical to human development (Smith, et.al., 1997). In recent years a couple scholars have begun to review Vygotsky's theories in light of applying it directly to moral education, at this time this work is primarily philosophical (Smith, et.al., 1997) (Tappan, 1998) (Crawford, 2001). The idea of applying Vygotsky's theory of concept formation to the process of educating children about morality (Crawford, 2001) overcomes the often-difficult stage-theory for understanding how human beings capture moral ideas. Inherent in Vygotsky's theory of concept formation is the need for social interdependence in the process of developing new ideas and deeper understanding; this is an open

door to the theory-based link between cooperative learning to moral development. Moral education using Vygotsky's theoretical notion of the Zone of Proximal Development is another potential application of Vygotsky's theories to modern moral education (Tappan, 1998), it could potential be a third path for moral educators replacing both character education and the cognitive-developmental model. Vygotsky's theories have numerous other applications to moral education and are a strong theory base for cooperative learning as a natural pathway to moral development in children. It is important to note that application of Vygotsky to moral development theory and his incomplete body of work may limit its synergy with social interdependence theory. Vygotsky defines cooperation as the means that children interact with one another and with adults in order to learn and grow optimally. Since Vygotsky's work did not span a long career (he died prematurely) we do not know if he would have further expanded his basic social interaction definition of cooperation.

The Integration of Social Interdependence and Moral Development:

There is little research that has explicitly examined the relationship between cooperative learning and moral development in children. The work that exists is primarily philosophical; luckily it is very pro-active philosophical work that frames this as a topic of value to further evaluate through empirical research. The idea that in order to have a truly moral society there first must be mutual respect and cooperation (Korthals, 1992) stems from Piaget's theory of moral development and moral education. The notion that in order for children to

develop a clear and internalized concept of morality they must first enter a state of symmetric cooperation with adults in their lives (Korthals, 1992) also comes directly from Piaget's early theories of moral development. It is not surprising that Vygotsky's theories also make direct links between cooperation and a child's ability to obtain a deep understanding of morality; in fact Vygotsky takes it a step further and asserts that moral education must be a socio-cultural activity (Tappan, 1998). Where Piaget focus's almost exclusively on the relationship and symmetric cooperation of students with teachers (Korthals, 1992), Vygotsky also recognizes the value of cooperative interdependences with all adults and with peers in the process of developing morally (Tappan, 1998) (Crawford, 2001). Although not clear from the work that later was based on Piaget's work, such as Kohlberg's moral development theory, his actual theories on moral development and moral education seem to be in closer to Vygotsky's notion of social cultural cooperation (Korthals, 1992) (Tappan, 1998). The discussion of Piaget and Vygotsky open the door to a clear theoretical framework for seeing cooperative learning as a critical path to moral development in schools.

There have been some empirical studies that have looked at cooperative learning or at least cooperation as a means to developing specific aspects of moral development. Etxebarria (et al., 1994) looked at cooperative learning as a means to promote prosocial and altruistic behaviors in students, using a pre-test/post-test model. In this particular study cooperation was coupled with empathy training, perspective taking, and conceptualization of other people in a fifteen-week training program. Due to the multivariate nature of this study it is

difficult to conclude that their final results were a result of the use of cooperative learning; they did have significant positive results in measures of prosocial and altruism in their treatment subjects compared to their control group (Etxebarria, et al., 1994). Research more explicitly examining cooperative learning's influence on prosocial behavior (Blaney, et al., 1977) found that children in cooperative learning conditions are significantly more likely to exhibit prosocial behaviors, then children in non-cooperative control groups. A more comprehensive cooperative learning system called the Small Group Teaching project or SGT (Hertz-Lazarowitz & Sharan, 1984) had very positive effects on the development and maintenance of prosocial behavior in treatment subjects compared to those in the control group. These studies all build a solid foundation for further research on the positive impact of cooperative learning on overall moral development in students, especially since it has been shown to positively enhance prosocial behaviors in students.

Vygotsky and his form of social constructivism is a theoretical bridge between the broader realm of moral development and cooperative learning. The theoretical model that I plan to use for this research is a merging of social constructivism as framed by Vygotsky, social interdependence theory as framed by Deutsch, Johnson, & Johnson, and traditional moral development as framed by Kohlberg & Rest. Since Kohlberg and Rest's moral psychology model is based on Piaget's constructivist view of development, the merging is of two forms of constructivism and social interdependence theory. Perhaps it could be called

the theory of Social interdependence constructivism; this will become more fluid with empirical research to bridge these theoretical models.

Deutsch (1962) discusses the values inherent in cooperation and outlines the ways social interdependence can be used to enhance core human values in people. The fact that Deutsch was outlining the values that are potentially enhanced by social cooperation and social interdependence in society suggests a philosophical basis for connecting moral values with social interdependence theory. Further examination of the research and philosophical writings on social interdependence theory reveal a history of examining skills that are now a part of the moral development literature. Johnson (1972) discusses a study relating social interdependence to positive attitudes to diversity; this is a potential starting point for multicultural sensitivity and moral development related to diversity issues. Johnson (2002) explores the research that has been done to relate social interdependence theory to other potential moral skills including: reduction of prejudices, reduction of anti-social behaviors, and an increase in prosocial behaviors. The research that has been done relating social interdependence theory to some key skills and components of moral development further support the need to do empirical research to examine the relationship between social interdependence and moral development. Based on the studies in the social interdependence literature on specific aspects of moral development, the outcomes of the empirical research into the relationship between the two is likely to have positive outcomes. There is every reason to

believe that social interdependence will have a positive impact on students moral development.

Constructive Controversy

Constructive controversy has been defined by Johnson et al. (2000) as the existence of differing ideas, opinions, and information in a group of students who are seeking to come to a mutual agreement and understanding on a specific issue. The use of constructive controversy differs from debate in a couple key characteristics; most notably in the fact that in constructive controversy the goal is a win-win situation, rather than in debate where the outcome is a win-lose situation (Johnson and Johnson, 1985). Constructive controversy is very compatible with the goals of cooperative learning and the notion of creating a classroom environment that promotes the notion that everyone either sinks or swims together. In fact constructive controversy is a combination of formal structured intellectual conflict and cooperative learning techniques, thus being a natural compliment to any cooperative or humanistic classroom. The two dominant models are the Johnson and Johnson model (1985), which has large-scale applications, and the simpler model of Barbara Watters (1993), which is a more skeletal model of this technique.

Constructive controversy has been used in a variety of classroom settings (Herreid, Clyde F., 1996) (Johnson, Johnson, Smith. 2000) from early elementary classrooms through graduate school seminars. One common theme throughout the constructive controversy research is the increase in student

engagement in the learning process when they are involved in this constructive controversy as opposed to debate or one-sided discussion of an issue. Browne and Keeley-Vasudeya (1992) contend that constructive controversy is a valuable alternative to the traditional model of students as vessels of teacher knowledge or as they put it the “sponge model” of education; constructive controversy allows students to become very actively involved in what ever they are learning.

Church (1997) discusses the value of involving students in relevant controversies that are going on related to the books they are allowed to read and why certain books are considered controversial choices for people of their age. Church (1997) validates the idea that constructive controversy can be a valuable way to teach both language arts and social awareness in students through thoughtful discussion of controversial issues. Hines (2001) illustrates the strong positive benefits of using constructive controversy in the teaching of science to students of all ages in order to increase critical thinking skills and perspective taking skills in the realm of sciences. Hines (2001) expands the constructive controversy discussion by suggesting that it is a valuable way to create more thoughtful researchers across age and ability level; she also suggest controversy as a means to engage previously disinterested students in the science classroom. These are all studies that illustrate the academic value of constructive controversy across subject and across grade level.

Moral Dilemma Discussions

Moral dilemma discussion in its simplest form is the discussion of any moral issue in the context of a small group or a classroom, with the purpose of heightening the moral thinking processes of the involved students. Kohlberg & Mayer (1972) discuss the value of discussing moral issues in classroom settings in order to help students to improve their core understandings of morality and the manner in which they think about moral and ethical issues. Kohlberg's now famous moral development interviews are based in large part on the theoretical premise that talking about moral dilemmas is one of the best ways to understand how a person morally reasons.

Many of the recent moral education programs have been based on Kohlberg's conception of moral dilemmas as a central form of fostering moral development. Narvaez and company developed a neo-Kohlbergian approach to moral education based on core skills of morality, included in this model is the extensive use of moral dilemma discussions to improve moral reasoning and sensitivity (Narvaez, et.al, 2000). Noddings (2002) discusses the value of discussing ethical and moral issues through out education to foster moral development, critical thinking, and general cognitive skills of discourse. Discourse as a fundamental means to the development of intellectual understanding is at the heart of Noddings' conception of discussion as central to educating moral people. Oser (et.al, 2002) present a clear summary of the use and development of moral dilemma discussions as a successful and impactful method of stimulating moral growth. Oser (et.al, 2002) present a validation of

moral dilemma discussions as a cornerstone of moral education across age, country, and social structure; it has been shown to work as a means of improving moral development across the world.

Piaget's idea of moral equilibration (1980) suggests that children need to find and discuss contradictory positions in order to seek out their own understanding of the world around them. Lazzaro and Gallagher (2002) suggest that based on Piaget's conception of equilibration it is important if not essential for teachers and parents to create opportunities for morally contradictory experience in order for students to construct a personal morality. The further suggestion that moral dilemma discussions are a means to creating classroom discussions around contradictory ideas related to a given discussion. The theory of equilibration opens the door to a further theoretical support of moral dilemmas as a proactive means to helping students create a personal morality. Lazzaro and Gallagher (2002) specifically suggest that in addition to discussion of predetermined moral dilemmas that natural moral dilemmas occurring in the context of the classroom should be taken up as innate opportunities to have moral dilemma discussions.

The proposal for creating a new model

The aim of this paper was to present a comparison between moral development and social interdependence theory in order to lay the foundation for a theoretical model to bridge these two bodies of literature. The two theoretical models compared throughout this paper are the foundation on which future

research on the social interdependence of moral development. The bridges that are proposed in this paper between these theories are hypothetical, until the empirical research examining the links can be carried out in the field. This being said the preliminary philosophical comparison seems to support the further investigation of this topic through extensive empirical research.

An additional aim of this paper has been the presentation of a proposed new model that combines constructive controversy and moral dilemma discussion into a cohesive model for cooperative moral development using constructive controversy. The new model is based on the solid foundation of empirical data on both constructive controversy and moral dilemma discussion as successful intellectual models. This new model will be based on the assumption that very little if anything will be lost in the synthesis of these two very intellectually useful models into a new model. The idea is to present moral dilemmas to students using the format of a constructive controversy, as opposed to the more traditional open discussion or teacher directed discussion of moral dilemmas.

This new model will also stray from traditional constructive controversies in that the perspectives on the issue will be presented in a more holistic fashion, rather than the more typical two sides of a coin model. The need to include more than two positions for moral dilemmas stems from the complexity of how people process and reason about moral issues. As an example if the moral dilemma our class will be discussing is whether or not it is ever ok to tease a peer. The traditional discussion model would ask this as an open ended question that

would be talked about with direction from the teacher who might add probing questions to get at core elements of the dilemma. The constructive controversy model would have information on the yes and the no position that would be the basis of a dialogue that would end in a new alternative solution, usually done in small groups divided into sides of the issue. The new model would have students in cooperative groups with information on the multiple perspectives on the issue of teasing, students would be assigned to various positions on the issue and would share all sides and seek a mutually agreed upon response in the end. This new model will be fundamentally based on the bridging of Kohlberg and Mayer (1972) moral dilemma model with the Johnson and Johnson (1985) model of constructive controversy into a cohesive integrated model for moral dilemma use in classrooms.

Outline of Primary Pilot Study:

The following is an outline and report on the primary pilot that has been carried out to begin establishing the relationship between social interdependence theory and moral development in elementary school students. The research design was a simple two condition experiment done in a classroom in a cooperative school. Half of the students in this combined age, third through fifth grade, classroom was assigned to a competitive condition and the other half was placed into four cooperative groups. All the students took a pre-test that included basic demographic data, and a classroom climate questionnaire. On the day of the study they solved the same moral dilemmas either individually under competitive conditions or in their cooperative group. Two days after the experiment the students were asked to complete a tolerance survey and an individual moral dilemma.

Key Questions:

1. Does a cooperative classroom have an influence on students moral development and if so in what ways?
2. In what ways can cooperative learning be applied to education to optimize its influence on students moral development?
3. Based on Rest's Four-Component model which components of moral development are most influenced by a cooperative learning environment?

Key Theories and Hypothesis:

1. The key theorist in moral development (including: Kohlberg, Piaget, Rest, Gilligan, etc.) all mention social cooperation through out their theories, yet little research has been done to evaluate the connections between social cooperation and moral development. The primary hypothesis of this study is that the social cooperation found in a cooperative school will foster more rapid and fluid moral development in its students the competition and individualism found in the majority of schools.
2. A secondary hypothesis of this study is that the positive interdependence found at a cooperative school can be predicted to help increase moral sensitivity and moral motivation of the students in the school.
3. The final hypothesis is that the group processing and social skills training that are integrated into a cooperative school are likely to increase moral sensitivity, moral motivation, and even the moral actions of the students.

Methodologies:

The location selected for this research study is Highlands elementary school in Edina Minnesota. This is a primary school with grades kindergarten through fifth grade in an upper middle class suburb of Minneapolis Minnesota. This school has five hundred students evenly distributed from kindergarten through fifth grade; the student body is predominately (over ninety percent) Caucasian and from well-educated families. Highlands elementary school is a completely cooperative school; the school has fully implemented the Johnson

and Johnson model of cooperative learning and peacemaking/conflict resolution. Highlands elementary school was selected as the location for this pilot study based on a previously established relationship and the flexibility to easily access classrooms for experimental research. The classroom that was selected was a multiple grade classroom with third through fifth graders who are team-taught by their main teacher and a teacher of the adjacent first through third grade classroom. This model of team teaching is also based on the principles of a cooperative school; where students are placed in a heterogeneous classroom by grade and given the consistency of a team of teachers who stay with them from first through fifth grade.

The students were informed at the beginning of their school week that they would be participating in a University of Minnesota research study, but they were not told what the subject of the study was or what was going to occur the day of the study. The research study was set up as an experiment using only one class in one school. The research study uses the researchers as participant observers, acting as the teachers of the two conditions. The classroom teacher and a graduate student volunteer acted as the observers for this study. A non-biased, objective outsider was selected to score the moral dilemma forms from the study. On the day of the study, there were twenty-four students in the selected classroom. The researchers introduced themselves to the class and then had the students counted off by two in order to randomly assign the students to the cooperative or competitive condition. Once the students were divided into the two conditions, the cooperative group was randomly divided into

four cooperative groups using a count off by four. The students in the cooperative condition were reminded of the key guidelines for cooperative work: assigning roles and responsibility, positive social skills, social support, constructive controversy, and sharing of individual resources. The students in the competitive condition are instructed to not share any ideas with their peers, that they are competing against one another for prizes and that there are only enough prizes for the top three students. With the guidelines for the two conditions established the students were given a moral dilemma to solve, with a set of six questions that followed that probe into their reasoning and sensitivity to the story. There was a time limit of fifteen minutes set on the task of solving the moral dilemma; this was particularly emphasized with the competitive group.

While the students were working on the dilemmas, the two observers were observing each group of students, depending on the condition they were both observing a formal cooperative group or a seated competitive group, for two minutes each and then moving on to the next group. The two researcher/instructors were reinforcing the guidelines for the condition and addressing questions regarding the task. As students completed the first task, they handed in their sheets to the researcher/instructors and silently did work at their seats, observation of students continued outside the formal task setting. The top three students in the competitive group were given their option of candy prizes; this was done through a random selection process to reinforce the competitive condition. The cooperative group was told to celebrate through high-fives and other internal reinforcement techniques. The two researcher/instructors

swapped groups at this point, in order to reduce teacher effect on the results of this study. The conditions were reviewed and the students followed the same procedure for the second dilemma task. As the cooperative groups finished, they were given a selection of candy prizes as a team in order to celebrate their successful completion of the task. The top three of the second round of the competitive condition were given a choice of what candy they wanted as their prize. Finally after the whole class finished with the study, they were debriefed about the study including an explanation of the two conditions and everyone who had not yet been rewarded was given candy as a thank you gift.

The whole class will be given another moral dilemma as a post-test/follow-up on the Monday following the study by their classroom teacher; this will be an individual accountability test of moral reasoning. They will also be given a brief likert scale questionnaire about moral behavior in their classroom. The moral dilemmas from the actual study will be combined with the post-test dilemma and the moral behavior questionnaire to capture the broadest snapshot of the moral reasoning and behavior of the students in this classroom. This was clearly a pilot study that will be used as a learning tool to create an experiment that will more accurately evaluate the influence of cooperative learning on moral development.

The following are the measurement tools used in this study.

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INTERCULTURAL DILEMMAS

Also see *Cross-Cultural Dialogues: 74 Brief Encounters with Cultural Difference* by Craig Storti, and *Developing Intercultural Awareness: A Cross-Cultural Training Handbook, Second Edition* Robert L Kohls & John M. Knight,

The Concert

Erin is a 14-year-old American high school student spending a month in Mexico as part of an exchange program. She lives with a Mexican family and has become good friends with their 13-year-old daughter, Rosa. She has also gotten to know Rosa's other friends. Erin likes all the new things about life in Mexico but feels frustrated that there are more rules. She misses freedoms from home like playing outside and shopping at the corner store whenever she wants to. Her new friends prefer to just stay home or at each other's houses. Whenever Erin suggests to her friends that they do something new, the others seem very quiet and don't want to talk about it. She was very excited when she heard that one of her favorite music groups was going to be coming to town so she suggested to Rosa and her friends that they should all go. Although the girls admitted they would like to go, they looked very nervous and said they didn't think they could. Erin kept trying to bring it up over the next few days, but someone always changed the subject.

Missing the Newspaper Meeting

Mariko was a new exchange student from Japan at a middle school in Minnesota. She was a little nervous at first, but she found herself becoming familiar with the routines and lifestyle. She had also become friends with a girl named Linda, who sometimes gave her a ride to school. One morning, on the way to school, Linda asked Mariko if she would like to help out with the school newspaper, for which Linda was a junior editor. Mariko replied hesitantly that she didn't think her English was good enough and that it would be better to ask someone else. Linda told Mariko that her English skills would be just fine and that she'd look for her after school to show her where the newspaper staff meets. That afternoon, Mariko didn't show up, even though Linda looked for her for at least an hour. The next time she saw Mariko, Linda asked what had happened to her. Mariko apologized and said she'd had to study for an exam and she didn't really feel she was capable of doing the work. Linda was exasperated. "Well, why didn't you just say so?" she demanded of Mariko. Mariko just looked down and said nothing.

Special

Activities

INTERPERSONAL DILEMMAS

The Ridiculous Hat

You're eating and hanging out with some of your friends at the tables outside a fast food restaurant. This guy walks up and you recognize him as a new student who is playing on your soccer team. As he comes closer, you all notice that he is wearing a strange cap on his head. When you realize that you and all of your friends are staring at him, you try to break the tension by calling out, "Hey! Nice hat." Everyone in your group laughs, and you smile at him, expecting him to smile back. Instead, he looks very embarrassed and rushes inside the restaurant. When he comes back out, he doesn't even look up. He walks off without saying anything, still looking a bit embarrassed.

Cutting the Line

You have been waiting in the movie ticket line with a friend for about 10 minutes out in the cold and the line seems to be moving slowly. You start to wonder if the show you wanted to see might sell out. As you lean forward to check what time the movie starts, two girls run up to the lady in front of you and hug her excitedly. The three start chattering away and laughing and several people behind you seem annoyed that they've cut into the line.

A Person Without a Home

You decide to take a weekend job volunteering at the public library.

After you have been working there a few weeks, you notice a woman who comes in almost every day and sits down with a stack of books. She doesn't leave until the library closes in the evening. One day your boss jokes with her about how she "lives at the library," and is surprised to find out that she is actually homeless. The whole library staff is surprised because she is not what you would expect a homeless person to be.

The Boy at the Bus Stop

You are waiting at the bus stop early in the morning. You have a lot on your mind because you have a busy day ahead of you. Out of the corner of your eye, you see a boy, several years younger than you, looking around anxiously. He looks like he's in a hurry and he can't decide where to go. He glances in your direction for a moment and looks like he is about to say something. He opens his mouth to speak but stops suddenly just as he gets close enough to say something. He leaves quickly.

Special

Activities

TOLERANCE SURVEY

~ Please circle the number that shows how fairly you think the teacher treats the following people:

Very fair Fair enough Not fair at all

boys 1 2 3

girls 1 2 3

students of a different race 1 2 3

students from another culture 1 2 3

students with disabilities 1 2 3

students with a different religion 1 2 3

students who are overweight 1 2 3

students who look different 1 2 3

~ Please circle the number that shows how fairly you think students in our class treat the following people:

Very fair Fair enough Not fair at all

boys 1 2 3

girls 1 2 3

students of a different race 1 2 3

students from another culture 1 2 3

students with disabilities 1 2 3

students with a different religion 1 2 3

students who are overweight 1 2 3

students who look different 1 2 3

~ Do you think you've ever been embarrassed or treated unfairly for being different? ____yes ____no

If you said yes, look at the following list of ways that people can be different and then check the ones that you feel have made others treat you unfairly.

I have been embarrassed or treated unfairly because I am _____.

____a girl ____a different race

____a boy ____from a different culture

____a person with a disability ____different in physical appearance (weight, acne, height)

____a particular religion ____other_____

~ Sometimes people are unfair to others by bullying or teasing, but other times they hurt them just as much by ignoring them.

Please check which types of people have been ignored or teased in our class.

Ignoring Bullying/Teasing

_____ students from other cultures

_____ students of a different race

_____ students with a different religion

_____ students with disabilities

_____ students who look different (including clothing or acne)

_____ students who are overweight

_____ students who are very short or tall

In your opinion, what are the worst social problems in our class?

What would you do to improve social problems in our class?

~ Circle which one you are: Girl Boy

Research results and Data analysis:

The Ridiculous Hat (Moral Dilemma #1)

Competition

Cooperation

Subject 1: 13

Group 1: 7

Subject 2: 12

Group 2: 24

Subject 3: 11

Group 3: 30

Subject 4: 15

Group 4: 16

Subject 5: 15

Average For Story 1: 19.25

Subject 6: 19

Subject 7: 7

Subject 8: 16

Subject 9: 12

Subject 10: 9

Average for Story 1: 12.9

Cutting the Line (Moral Dilemma #2)

1: 12	Group 1: 8
2: 10	Group 2: 29
3: 13	Group 3: 27
4:16	Group 4: 13
5:13	Average for Story 2: 19.25
6:22	
7: 11	
8:16	
9: 10	
10:8	

Average for Story 2: 13.1

Total Moral Dilemma Scores by the two conditions:

Competition	Cooperation
1: 25	Group 1: 15
2: 22	Group 2: 53
3: 24	Group 3: 57
4: 31	Group 4: 29
5: 28	Average total Moral development score:
38.5	
6: 41	
7: 18	
8: 32	

9: 22

10: 17

Average total Moral development score: 26

Summary of Findings:

Based on the above scores we can clearly see, even without extensive statistical analysis, that there is a difference between the moral development scores of those in the cooperative group and those in the competitive group. Just based on these raw scores we can state that cooperative learning seems to have a positive influence on the moral reasoning and moral sensitivity skills of those students in these groups. The moral dilemmas that were used for this study measure moral reasoning and moral sensitivity skills, so those are the two moral skills we can discuss here. The scores on these dilemmas also indicate that cooperative groups tend to be more comprehensive in their discussions than those individuals who were competing against one another.

Concluding thoughts and the Proposed Future Study

The creation of a model of cooperative moral development through constructive controversy has its roots solidly in the dynamic empirical world of both moral dilemma discussions and constructive controversy. These two models stem from the broader arenas of cooperative learning/social interdependence theory and moral development/moral education theories. The time has come to bridge these two parallel paradigms into a more solidified model for the education of students to be the keys to a better more thoughtful society. The key next step

is to carry out a full-scale experimental research study testing out this new model in comparison to the two well-established models that this new model is based upon. The experiment will expand upon the previously run pilot study that examined the impact of cooperation on moral development, compared to students in a competitive condition. The full-scale experimental study will randomly assign students to the three conditions; Moral dilemma discussion, constructive controversy, and the new moral dilemma controversy. These three conditions will be carried out by teachers who have been well trained in their assigned condition, as well as being skilled in cooperative learning and moral education in general. All three conditions will use the same basic moral issue, simply presented in a condition specific manner. After the treatment each student will complete a moral development test independently, as well as a survey of reactions to the learning experience. The results of these measures will be used to assess the viability of this new model of cooperative moral education using constructive controversy. The expectation would be that this new model would be at least as effective as the two already validated models that it is being based upon.

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