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Dualistic, Multiplistic, and Relativistic
Thinking as it Relates to a Psychology Major

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Running head: THINKING RELATED TO A PSYCHOLOGY MAJOR

Abstract

The present study examined differences in reflective judgment between graduate students in Behavior Modification and Clinical/Counseling Psychology. Differences in reflective judgment were examined with respect to three factors: dualism, multiplism, and relativism. Each subject was given the Epistemological Cognition's Scale. This 48 point questionnaire was administered to 28 subjects, 14 from each department. This scale uses questions developed from Perry's scheme and Kitchner and King's 1981 model to determine the different levels of reflective judgment for each program. The results indicate that there was a difference between programs on the factor of dualism, but no differences on multiplism, or relativism. Issues regarding education and the basis of each program are raised, and implications for further study are suggested.

Dualistic, Multiplistic, and Relativistic

Thinking as it Relates to a Psychology Major

Certain epistemological assumptions have been examined as far back as Plato and Aristotle (Williams, 1908) whose philosophical ideas have stemmed toward a massive inclination to find knowledge. Epistemology can be defined as the study or theory of the origin, nature, methods, and limits of knowledge. This basic idea essentially asks the question "How do we know?" (Vaillancourt, 1989). Because each individual holds a certain theory about knowledge, it seems plausible that one can research and study this assumption within the context of their field. Cognitive psychology looks at this realm of epistemology and tries to answer some of the questions that surround it.

One way psychologists research certain epistemological assumptions is by developing tests to measure this characteristic of knowledge in humans. One of the first researchers who pioneered the study of intellectual development was William Perry. Perry (1970) developed a scheme of adult intellectual development and gave way to the idea of looking at epistemological positions. In a classic study of Harvard students in 1970, he proposed that development consists of nine positions, which can be broken down into

three basic epistemological stances: (1) dualism, (2) multiplism, and (3) relativism. The three concepts are discussed below.

Dualism, as felt by Perry (1970), was considered to be "the simplest assumption with which a person may hold on epistemological....matters and still said to be any assumption at all." Within this theoretical orientation, one tends to consider the world to be dichotomous. It is only black and white, good and bad, right and wrong. Knowledge is quantitative. Many dualistic people feel that the only way to get things in this world is by hard work and adherence to authority.

Multiplism is the next hierarchical stage of development. Someone in this stage may feel uncertain about decisions that they make. They also feel that everyone "has a right to his or her own opinion." Multiplicity in itself suggests that people feel that there are many different choices or answers. People at this stage often feel that authority figures are not the only ones with answers.

Relativism is the third position. Within this realm, Perry (1970) believed that considerable change had taken place in the individual. Knowledge became qualitative and complex. As a person gains more information on a subject, their outlook on that subject may give them a new perspective.

This also lent itself to the notion that something is not good or bad, but rather one answer is better or worse than another answer. Metacognition (thinking about thinking) also seemed to be present in this stage.

Perry's (1970) research was the result of a four year study of college students to see if they moved through his positions or scheme. The way he collected his data was by giving open-ended interviews about certain topics to see how the students would answer. Perry indicated that first year students tended to be more dualistic, while Senior students tended to be more relativistic. He also found that students moved to a higher position developmentally, concluding that the individual makes the change not the environment. Perry felt that as one was challenged by changing ideas, the opportunity for developmental growth increased.

Another advancement in the study of cognitive processes was the development of the Reflective Judgment Model produced by Kitchner and King in 1981. This model tried to limit the scope of Perry's scheme to a more refined epistemological assumption. This model consisted of seven stages which tried to rate knowledge or assumptions about knowledge. The formation of complex or comprehensive processes of thought increased as the higher levels increased. This model was used as an interview technique to rate

reflective judgment in individuals. The subject was asked or read certain dilemmas and was encouraged to respond, making sure the interviewer had as little input as possible. One example of a dilemma is as follows:

There have been frequent reports about the relationship between chemicals that are added to food and the safety of those foods. Some studies indicate that such chemicals can cause cancer, making these foods unsafe to eat. Other studies, however, show that chemical additives are not harmful, and actually make the foods containing them more safe to eat.

After each dilemma, a set of probe questions were used to elicit subjects' rationale and to find their points of view on the issue (Kitchner and King, 1981). The answers were then scaled using Kitchner and Kings (1985) scoring rules. Consistent agreement of Kitchner and King's reliability was noted with other researchers (Brabeck, 1980; Mines, 1980).

Both Perry, and Kitchner and King felt that education played a role in developing reflective judgment. Since reflective judgment is a reasoning style for the justification of beliefs, one way to expand those beliefs is by expanding education of the individual. Education could be used as a tool for developing a broader image of other idea's that could exist while moving one toward a higher level of reflective judgment.

One should note that an individual does not always find relativism to be the best choice when thinking about a problem. As noted earlier, relativism is the highest form of reflective judgment. Many problems that are faced by an individual could be looked at from a dualistic point of view. For example, if one is faced with a glass of water dosed with poison, it would be ludicrous to contemplate the notion that perhaps not drinking the water would be the best answer, but that maybe drinking the poison should not be ruled out. Dualism is definitely the best choice in this situation, one should respond that there is no way they are going to drink that water.

Another situation that could take a dualistic, if not a multiplistic, attitude is the notion of religion. Religion has been one of the most argued about topics since the beginning of creation. Who is right? Who is wrong? The point of view that most people have about religion seems to be that their religion is right and everybody else's religion is wrong. Perhaps one could take the view that they feel their religion better fits their style of life and their outlook on the whole epistemological scheme.

One study that used the Reflective Judgment Interview was by Pape and Kelly (1991). They studied the reflective judgment of undergraduate education majors. Results

indicated that perhaps education can influence reflectivity in subjects, although there was no significant effects found in the study. Perhaps another factor that may affect the emergence of reflectivity as discussed by Pape and Kelly (1991) is personal experience. The content of a person's life could determine the effect to which one may possess better reflective judgment skills.

One of the problems faced by research using the Reflective Judgment Model is the amount of training that is required of the interviewer. Most training takes at least a year, possibly two. As a result, it often becomes very time consuming to find people qualified enough to conduct the research. Another major problem is cost. It tends to be very expensive to hire trained interviewers to conduct the research. Especially since it takes around two hours of their time for each subject. A more cost-efficient, time saving instrument should be used for the measurement of reflective judgment.

Annette Vaillancourt (1989) developed the Epistemological Cognition's Scale. This 48 point questionnaire was developed using Perry's scheme and the Reflective Judgment Interview developed by Kitchner and King. This scale was unable to capture the nine positions of Perry's scheme, but rather condensed the information into three general assumptions as shown earlier in the studies of Perry, and

Kitchner and King: dualism, multiplism, and relativism. This scale tends to be much easier to administer, as it requires less time to finish. Also, this scale can be administered by any researcher who wishes to use it. No specified training is needed. The cost factor is also much smaller with this scale. Since no experience is needed, there is no need to pay for the time of an interviewer. One of the potential limitations of the scale was that it could not discriminate between a dualist and a multiplist. There were not enough dualistic subjects to be recorded in Vaillancourt's pilot study.

The present study examines dualistic, multiplistic, and relativistic thinking as it relates to a Psychology major. This study uses Vaillancourt's scale to test the differences in reflective judgment between graduate studies in Behavior Modification and Clinical/Counseling programs.

Formal training in a Behavior Modification program appears to encourage future professionals to adopt an approach of a pre-relativistic or perhaps a 19th century view when it comes to studying individuals. Most Behavior Modification programs can use algorithms to solve the problems they are faced with. The basic formation of the program could show that a reward or punishment can be given to a subject contingent upon the behavior of that subject. There is a feeling of being concrete when it comes to behavior. The

individual in this major may look at things with a more dualistic attitude.

Based on their training experiences and focus, Clinical and Counseling programs may be much different. For the majority of clients requesting help, especially with college students and/or adults, who may be more insight oriented, a program such as Clinical or Counseling, who uses cognitive therapy, would be a good approach. These programs tend to look at ill-defined problems where there is no right or wrong answer. The individual in this program must look at things in a more relativistic point of view, simply because of the uncertainty of what they are faced with.

This study was designed to test the notion that Behavior Modification programs will tend to be more dualistic, while the Clinical/Counseling programs will tend to be more relativistic.

Method

Subjects

Students were chosen from a large, mid-western university. The pool consisted of 28 graduate students; 14 subjects from a Behavior Modification program, and 14 subjects from a Clinical/Counseling program. There were 10 females and 4 males in the Behavior program, with an average age of 28. There were 11 females and 3 males in the

Clinical/Counseling program, with an average age of 27.

Subjects were treated according to the American Psychological Association ethical guidelines (American Psychological Association Publication Manual, 1983).

Permission was received from the Human Subjects Committee at Southern Illinois University to conduct the research.

Materials

The Epistemological Cognition's Scale was administered. This instrument consisted of 48 questions that were chosen to elicit a general assumption about the subject's epistemology.

The psychometric properties of the scale tend to be fairly stable. The three subscales, based on Cronbach's alpha, maintained moderate to high internal consistency upon administration to subjects in the pilot study (Vaillancourt, 1989). Reliability of the three subscales was found to be, .79, .84, and .89, respectively.

Design and Procedure

Each subject received the Epistemological Cognition's Scale in their graduate classrooms, along with a cover letter, and a returned envelope. They were then asked to drop the envelope into a campus mailbox. Complete anonymity was used with the subjects.

The Epistemological Cognition's Scale was based on a complex, hierarchical stage model (Vaillancourt, 1989). There

Reflective Judgment

12

were three levels that the subject could be scored: (1) Dualism, (2) Multiplism, and (3) Relativism. Subjects were expected to choose from seven answers as shown below:

- 1 = strongly disagree
- 2 = disagree
- 3 = mildly disagree
- 4 = neither disagree nor agree
- 5 = mildly agree
- 6 = agree
- 7 = strongly agree

Thus, answers ranged from a strong agreement with a preferred stage, to a moderate agreement with a lower stage, to the least agreement with the least preferred stage.

Results

Table 1 presents the mean scores of the ECS found in both the Behavioral and Clinical/Counseling programs within the three sub-groups of dualism, multiplism, and relativism. This mean score represents the possible score achieved upon completion of the likhert scale. This scale was shown that a subject or group of subjects could receive any score from a 1 through 7. The 1 representing the strongly disagree category, through 7, which represents the strongly agree category.

Insert Table 1 about here

A between-subjects ANOVA was calculated for the two groups to see if there was any significant differences between the dualism, multiplism, and relativism factors. The ANOVA found that there was a significant difference at the .005 level ($p < .005$) on the dualism factor. There was no significant difference between the groups on multiplism and relativism factors.

Discussion

One part of the hypothesis seemed to be found by the data presented. This hypothesis was that the Behavior program would tend to be more dualistic than the Clinical/Counseling program. The other part of the hypothesis concluded that Clinical/Counseling programs would simultaneously be more relativistic than the Behavior program. This hypothesis was found not to be significant.

Pape and Kelly (1991) proposed that perhaps education could influence reflectivity in subjects. It seems highly unlikely that, since both programs are affiliated with the university, there could be a wide enough educational gap between the two programs to warrant the superiority of one program over the other. This conclusion of a superior program

would not only lead to an inferior or superior attitude of one program over the other, it would also waste useless time quaraling over which program was best.

A role that tends to look at both programs with different ideals in mind would tend to be better. Since each program has it's differences, one cannot be better or worse than the other. Each program should be looked at in the prospective of what it is out to achieve. Perhaps the Behavior program is more dualistic because of the focus of the program, to help bring about change in an individual using such techniques as classical conditioning, or perhaps positive reinforcement. It would seem natural that the program would take on a more dualistic attitude, simply because of the basics of the Behavioristic approach. The Clinical/Counseling programs look at more ill-defined problems where there is no right or wrong answers, everything is more relative to the situation that they are dealing with.

It seems plausible, however to agree with Kitchner and King (1981) who believed that education plays a role in the development of reflective judgment. This is shown by the results that both programs had a high level of reflective judgment. Since both programs are at the graduate level, it seems plausible to assume that reflective judgment would be present in both programs. The mean scores of the dualistic

factor show that there is a low agreement with this level in both programs and that both programs had a high agreement in the relativistic factor. This also lends to the notion that reflective judgment is present in both programs.

One limitation of the study as noted by Vaillancourt (1989), could be due to the subject sample. The subject sample in the present study and the study conducted by Vaillancourt included only advanced college or graduate students. The level of education in both programs could have misread the degree of dualism that both programs obtained. Neither program was very dualistic, but both programs were very relativistic. Another study should be conducted that include perhaps high school and undergraduate students in order to validate the proposed scoring system for the ECS.

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Table 1

Epistemological Cognitions Scale: Means
For Each Program at Each Factor

Program	Dualism	Multipism	Relativism
Behaviorism	2.93	4.05	5.47
Clinical/Counseling	2.15	4.48	5.65