

Locus Of Control And Decision Making Among College Students

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I. INTRODUCTION AND REVIEW OF LITERATURE

In personality psychology, locus of control refers to the extent to which individuals believe that they can control events that affect them. Understanding of the concept was developed by Julian B. Rotter in 1954, and has since become an aspect of personality studies. A person's "locus" (Latin for "place" or "location") is conceptualized as either internal (the person believes they can control their life) or external (they believe that their decisions and life are controlled by environmental factors which they cannot influence). Individuals with a high internal locus of control believe that events in their life derive primarily from their own actions: for example, when receiving test results, people with an internal locus of control would tend to praise or blame themselves and their abilities, whereas people with an external locus of control would tend to praise or blame an external factor such as the teacher or the test.

Locus of control has generated much research in a variety of areas in psychology. Debate continues about whether specific or more global measures of locus of control will prove to be more useful in practical application. Careful distinctions should also be made between locus of control (a concept linked with expectancies about the future) and attribution style (a concept linked with explanations for past outcomes), or between locus of control and concepts such as self-efficacy. Locus of control is one of the four dimensions of core self-evaluations – one's fundamental appraisal of oneself – along with neuroticism, self-efficacy, and self-esteem. In a follow-up study, Judge, Locke and Durham (2002) argued the concepts of locus of control, neuroticism, self-efficacy and self-esteem measured the same, single factor. The concept of core self-evaluations was first examined by Judge et al. (1997), and since has proven to have the ability to predict several work outcomes and performances.

Personality Orientation from Locus of Control

Rotter (1975) cautioned that internality and externality represent two ends of a continuum, not an either/or typology. *Internals* tend to attribute outcomes of events to their own control. People who have internal locus of control believe that the outcomes of their actions are results of their own abilities. Internals believe that their hard work would lead them to obtain positive outcomes. They also believe that every action has its consequence, which makes them accept the fact that things happen and it depends on them if they want to have control over it or not. *Externals* attribute outcomes of events to external circumstances. People that have external locus of control believe that many things that happen in their lives are out of their control. They believe that their own actions are a result of external factors that are beyond their control. Rotter in his study suggested that people that have external locus of control have four types of beliefs which include the following: powerful others such as doctors, nurses, fate, luck and a belief that the world is too complex to predict its outcomes. People that have external locus of control tend to blame others for the outcomes rather than themselves. It should not be thought, however, that internality is linked exclusively with attribution to effort and externality with attribution to luck (as Weiner's work -see below—makes clear). This has obvious implications for differences between internals and externals in terms of their achievement motivation, suggesting that internal locus is linked with higher levels of need for achievement. Due to their locating control outside themselves,

externals tend to feel they have less control over their fate. People with an external locus of control tend to be more stressed and prone to clinical depression.

Internals were believed by Rotter (1966) to exhibit two essential characteristics: high achievement motivation and low outer-directedness. This was the basis of the locus-of-control scale proposed by Rotter in 1966, although it was based on Rotter's belief that locus of control is a single construct. Since 1970, Rotter's assumption of uni-dimensionality has been challenged, with Levenson (for example) arguing that different dimensions of locus of control (such as beliefs that events in one's life are self-determined, or organized by powerful others and are chance-based) must be separated. Weiner's early work in the 1970s suggested that orthogonal to the internality-externality dimension, differences should be considered between those who attribute to stable and those who attribute to unstable causes.

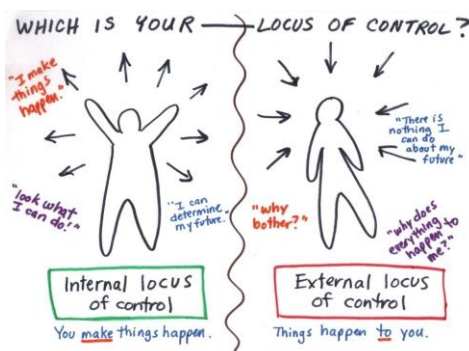
This new, dimensional theory meant that one could now attribute outcomes to ability (an internal stable cause), effort (an internal unstable cause), task difficulty (an external stable cause) or luck (an external, unstable cause). Although this was how Weiner originally saw these four causes, he has been challenged as to whether people see luck (for example) as an external cause, whether ability is always perceived as stable, and whether effort is always seen as changing. Indeed, in more recent publications (e.g. Weiner, 2006) he uses different terms for these four causes (such as "objective task characteristics" instead of "task difficulty" and "chance" instead of "luck"). Psychologists since Weiner have distinguished between stable and unstable effort, knowing that in some circumstances effort could be seen as a stable cause (especially given the presence of words such as "industrious" in English).

Regarding locus of control, there is another type of control that entails a mix among the internal and external types. People that have the combination of the two types of locus of control are often referred to as Bi-locals. People that have Bi-local characteristics are known to handle stress and cope with their lives more efficiently by having the mixture of internal and external locus of control. People that have this mix of loci of control can take personal responsibility for their actions and the consequences thereof while remaining capable of relying upon and having faith in outside resources; these characteristics correspond to the internal and external loci of control, respectively. An example of this mixed system would be an alcoholic who will accept the fact that he brought the fact upon himself while remaining open to treatment and/or acknowledging that there are people, mainly doctors and therapists, that are trying to cure his/her addiction, and on whom, he should rely.

Attribution Styles in Locus of Control

Attributional style (or explanatory style) is a concept introduced by Seligman (1995) has edited a book-length review of the topic. This concept goes a stage further than Weiner, stating that in addition to the concepts of internality-externality and stability a dimension of globality-specificity is also needed. Abramson *et al.* believed that how people explained successes and failures in their lives related to whether they attributed these to internal or external factors, short-term or long-term factors, and factors that affected all situations.

The topic of attribution theory (introduced to psychology by Fritz Heider) has had an influence on locus-of-control theory, but differences exist between the histories of these two models. Attribution theorists have been, largely speaking, social psychologists concerned with the general processes characterizing how and why people make the attributions they do, whereas locus-of-control theorists have been more concerned with individual differences. Significant to the history of both approaches were the contributions made by Bernard Weiner in the 1970s. Before this time, attribution theorists and locus-of-control theorists had been largely concerned with divisions into external and internal loci of causality. Weiner added the dimension of stability-instability (and later controllability), indicating how a cause could be perceived as having been internal to a person yet still beyond the person's control. The stability dimension added to the understanding of why people succeed or fail after such outcomes. Although not part of Weiner's model, a further dimension of attribution was added by Abramson, Seligman and Teasdale (globality-specificity).



Age and Locus of Control

It is sometimes assumed that as people age they will become less internal and more external, but provided data have been ambiguous. Longitudinal data collected by Gatz and Karel (2004) imply that internality may increase until middle age, decreasing thereafter. Noting the ambiguity of data in this area, Aldwin and Gilmer (2004) cite Lachman's claim that locus of control is ambiguous. Indeed, there is evidence that changes in locus of control in later life relate more visibly to increased externality (rather than reduced internality) if the two concepts are taken to be orthogonal. Evidence cited by Schultz and Schultz (2005) suggests that locus of control increases in internality until middle age. The authors also note that attempts to control the environment become more pronounced between ages eight and fourteen. Age-correlated differences in locus of control (LOC) orientation were examined for 306 persons age 13 to 90 in three areas of activity: intellectual, social, and physical. On the scales measuring LOC for both physical and social situations, persons over 60 scored more external than adults in the 35–50 age range. No age differences were observed in the intellectual domain. Findings seem consistent with the realities regarding changes in ability and opportunity for reinforcement which characterize the elderly. Results appear particularly important given that LOC is strongly related to life adjustment for this age group (Bradley & Webb, 2006).

Gender difference in Locus of control

As Schultz and Schultz (2005) point out, significant gender differences in locus of control have not been found for adults. However, these authors also note that there may be specific sex-based differences for specific categories of items to assess locus of control; for example, they cite evidence that men may have a greater internal locus for questions related to academic achievement. A study made by Takaki and colleagues (2006), focused on the gender differences with relationship to internal locus of control and self-efficacy. This study showed that females that had high internal locus of control were less compliant in regards to their health and medical advices compared to the men that participated in this study. Compliance is known to be the degree in which a person's behavior has a relationship with the advice. For example, a person that is compliant will correctly follow his/her doctor's advice.

In Adrian's (2005) article a synthesis of research in the last two decades was made that has explored the relationship of gender to locus of control measures. In the main, this research suggests that both males and females are becoming more external as they age. Females, however, tend to be more external than males on most locus of control measures. There are also gender differences in perceptions of control across behavioral domains. Factor analyses of locus of control measures indicate that males and females are relatively similar in primary factors but may differ substantially in some secondary factors. Two areas in which males and females appear to differ are perception of control over interpersonal relationships and perception of control over essentially uncontrollable life events. Gender differences also emerge in how locus of control relates to comparison variables. Internality, for example, appears to be more related to achievement for males than females and a better predictor of social adaptation for females than for males.

Cross-cultural Differences in Locus of Control

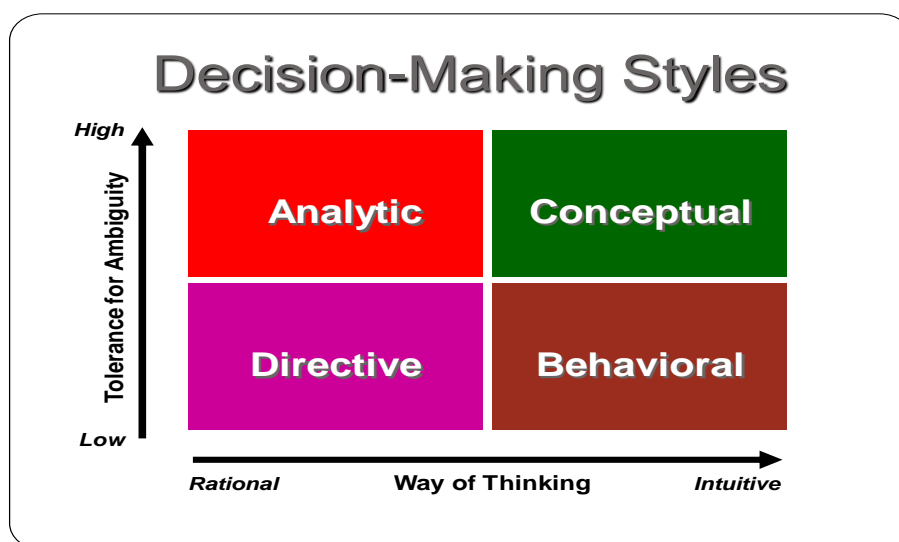
The question of whether people from different cultures vary in locus of control has long been of interest to social psychologists. Japanese people tend to be more external in locus-of-control orientation than people in the U.S.; however, differences in locus of control between different countries within Europe (and between the U.S. and Europe) tend to be small. As Berry *et al.* pointed out in 1992, ethnic groups within the United States have been compared on locus of control; African Americans in the U.S. are more external than whites, even when socioeconomic status is controlled. Berry *et al.* also pointed out in 1992 how research on other ethnic minorities in the U.S. (such as Hispanics) has been ambiguous. More on cross-cultural variations in locus of control can be found in Shiraev and Levy (2004). Research in this area indicates that locus of control has been a useful concept for researchers in cross-cultural psychology.

On a less broad scale, Sims and Baumann explained how regions in the United States cope with natural disasters differently. The example they used was tornados. They "applied Rotter's theory to explain why more people have died in tornados in Alabama than in Illinois". They explain that after giving surveys to residents of four counties in both Alabama and Illinois, Alabama residents were shown to be more external in their way of thinking about events that occur in their lives. Illinois residents, however, were more internal. Because Alabama residents had a more external way of processing information, they took fewer precautions prior to the appearance of a tornado. Those in Illinois, however, were more prepared, thus leading to fewer casualties.

Decision Making Style

It refers to the patterns of information processing and mental process we commonly use when faced with decision making. There are many different ways to classify decision making styles. Most of those styles are described by some elements of logic and intuition. One such classification refers to analytic, conceptual,

directive and behavioral. **Analytic decision** makers have high tolerance for ambiguity; gather as many facts as possible before leading to a decision, develop several complex solutions, and enjoy situations which demand challenging solutions. **Conceptual decision** makers have also high tolerance for ambiguity, and they also gather broad range of information before leading to a decision. However, they use more intuitive and interpersonal considerations while carrying out a decision. They tend toward a participative decision making compromising with the stand of rationality. **Directive decision** makers have low tolerance for ambiguity. They are technical in nature, very systematic, and they like to have decisions largely based on facts. They tend to be autocratic as they use little information and consider few alternatives but tending towards the control. In uncritical situations, they go with simple and clear-cut decisions in which they are efficient as they very much rely on formal rules. They are actually opposite to conceptual decision makers. In the end, **Behavioral Decision** makers have low tolerance for ambiguity. They take low data input to make decisions and focus on people. They enjoy cognitive simplicity while conducting their decision making and have always deep concern for people in their decisions. They are actually opposite to analytic decision makers.



Locus of Control and Decision Making

A descriptive study (Kalhan, 2007) was undertaken to investigate the relationship between locus of control and decision-making in students. Locus of control was measured using Rotter's "Internal-External Locus of Control Scale." Decision-making was measured through use of a tool entitled "Medication Administration Questionnaire" designed by the investigator. Both tools were administered to senior nursing students in a diploma and baccalaureate school of nursing. A statistically significant relationship was found between an internal locus of control and independent decision-making. The results suggest that locus of control may be an important factor in the degree of independence exercised in decision-making by students. These results also suggest that individuals with expectancy for external control may be significantly compromised in their ability to be professional and accountable in their nursing practice. Implications for nursing education and replication of the study are discussed.

In another study, altogether 44 managers working at Skanska (a Swedish multinational construction company) participated in the study. They were asked to complete a booklet including a locus of control test and a couple of decision tasks. The latter were based on case scenarios reflecting strategic issues relevant for consultative/participative decision-making. The results revealed that managers with low external locus of control used group consultative decision-making more frequently than those with high external locus of control. There was also a tendency showing that high externals more frequently used participative decision-making than low externals. This was in line with the general trend, indicating that managers on the whole predominantly used participative decision-making.

Arising from the above discussions, it is evident to note that locus of control has specific influence on the style of decision making of the people. The present study seeks examine the gender differences in locus of control, and decision making styles.

II. OBJECTIVES AND HYPOTHESES

This chapter presents a rationale for the study, its major objectives, and finally the hypotheses related to this piece of research.

The Rationale

The locus of control is said to be a significant determiner of the individual’s adjustment and coping. Studies have reported that gender and age significantly influence the locus of control of people and decision making of a person is largely influenced by his locus of control. As examined in different studies, adolescents are more likely to be internals and adolescent boys are more internal than adolescent girls. The present study attempts to examine this fact from a random sample of adolescent college students including both boys and girls from the Balugaon College and thereby to examine the relationship between locus of control and decision making. Further concern of the study is also to find out the nature of decision making of the adolescents and also the nature of gender differences in decision making.

Objectives

The objectives of the present study were:

1. To examine the nature of locus of control in adolescent male and female college students.
2. To examine the decision making styles of male and female college student
3. To examine the relationship between locus of control and decision making styles for college students.

Hypotheses

In the light of the above discussions of relevant literature, the following hypotheses are formulated for the present study:

Hypothesis 1. People are more internal during adolescence; Adolescent males are relatively more internals than adolescent females.

Hypothesis 2. Both adolescent boys and girls will largely use directive and behavioral decision making styles.

Hypothesis 3. Both boys and girls will be deficient in analytic decision making and also in conceptual decision making styles.

Hypothesis 4. There will be some demonstrative relationship between locus of control and decision making styles.

III. METHOD OF STUDY

This chapter presents a brief outline of the social settings from which the subjects were selected. The tests used in the present study along with the data collection procedure are also described.

Sample

The sample consisted of 72 subjects; 36 subjects belonging to each of the gender groups. The subjects were randomly selected from among the students of Sunakhala College, Sunakhala in the District of Khurdha. Sunakhala is a rural college where about 1500 students are reading of whom more than 700 are girls. The subjects were all educated and they have reasonable understanding of the English language. They were all socially sensitive and responsible students. All the subjects were from middle class rural socioeconomic background. All of them cooperated with the investigators during the process of data collection. The questionnaires were individually administered on each of the subjects.

Tests

Responses were obtained from all the subjects on the adapted version (Dash, et. al.) of locus of control questionnaire developed by Rotter (1975) and ‘What is Your Decision-Making Style?’ questionnaire developed by Robbins (1998). The nature of the questionnaires, their administration, and scoring procedures are described below.

‘What is Your Locus of Control?’ Questionnaire- The questionnaire has 10 items, each having two choices marked A or B. The subject’s task is to mark A or B as his choice of agreement. He gets a point for each of his choice as per the scoring key. The maximum points a subject can earn is 10. His locus of control is determined as per the following table.

Total Score	1-2	3-4	5-6	7-8	9-10
<i>Locus of control</i>	<i>High External</i>	<i>Moderate External</i>	<i>Mixed</i>	<i>Moderate Internal</i>	<i>High Internal</i>

‘What is Your Decision Making Style?’ Questionnaire- The questionnaire consists of 16 items in two parts. In the first part, there are 9 statements and each statement has two alternative responses ‘a’ and ‘b’. The subject is required to choose one of those two responses. For the other seven items, there are two word pairs of which the subject is required to choose one. On the basis of the subject’s responses, his score on each of the four decision making styles will be determined. Eight items determine the subject’s scores on analytic vs. behavioral decision making style and other 8 items determine his scores on conceptual Vs. directive decision making styles.

Procedure

The questionnaires were individually administered to each subject. The investigator personally approached and sought their cooperation. She requested the subjects to go through the questionnaires carefully and seek clarifications in case of doubt. Once the subjects properly understood the instructions, the investigators left the questionnaires with them. They had all agreed to return the duly filled in questionnaires in about two days. The investigators collected the questionnaires from them in time, and thanked them for their cooperation. All the subjects were educated, and belonged to middle class families.

IV. RESULTS AND DISCUSSION

In this chapter, results are arranged in terms of the type of skills investigated in the present study. The tasks used in the present study were to find out the locus of control of the subjects and their decision making styles. The data were organized in a 2 (Sex: male/female) x 2 (Locus of control: External / Internal). The results are described by means and standard deviations, graphs, and correlations.

Descriptive Analysis

Table 1 presents the means and standard deviations for locus of control (internal) in respect of both the male and the female group. The means of the male group are 7.36 while that of the female group is 3.87. The corresponding standard deviations are 1.62 and 1.45. The means and standard deviations place the male group as high internal and the female group as moderately external. Observation of individual data shows that most of the male subjects (20) are high internals, 7 of them are moderate internals, two of them are mixed, and only one of them is external. The mean score for females place them as external with respect to locus of control. Observation of individual data shows that 18 subjects belonged to the mixed category of locus of control; 3 to internal locus of control, and 9 as external locus of control. The means are also graphically plotted in the Figure 1. It is observed in the figure that adolescent females are moderate while on the other hand, the males are high internals.

In Table 2, the mean scores and SDs for the decision making styles of both male and female groups are reported. The mean scores are analytic vs. Behavioral and directive vs. conceptual. The data are also presented in Figure 2. Both adolescent males and females are high in behavioral and directive decision making styles. While males nearly same in both these styles, females are better in directive decision making styles. On the other hand both male and female adolescents are poor in analytic decision making, males lagging behind the females. Similarly, both are poor in conceptual decision making but males are a little better.

The results signify that adolescents' decision making is more influenced by intuition than by logic and reasoning. In their decision making, adolescents are less tolerant about ambiguity. Females are better in directive and analytic decision making compared to their male counterparts suggest that adolescent females use more information base and are less interpersonal in their decisions. They are relatively more critical in their decision making compared to adolescent boys. In other words, adolescent boys are likely to be at more risk compared to girls as they take decisions on the basis of interpersonal relationship without verifying the factual details behind their decisions. However, both males and females are at risk as analytic decision making low in both of them. It appears from the results that even boys are high in internal locus of control; they are poor in decision making skills. It may be suggested that due to over-confidence, adolescent boys' decision making skills put them into more troubles compared to their girl's counterparts.

Table 1. Gender-wise Means and Standard Deviations for Locus of Control

<i>Dimension</i>		<i>Age Group</i>	
		<i>15-18</i>	
		<i>Male</i>	<i>Female</i>
<i>Locus of Control</i>	Mean	7.36 (High internal)	3.87 (Moderate external)
	SD	1.62	1.45

Table 2. Gender-wise means and Standard Deviations for Decision Making Styles

Decision Making Styles								
Gender	Male				Female			
Style	Analytic	Behavioral	Directive	Conceptual	Analytic	Behavioral	Directive	Conceptual
Mean	2.13	5.87	5.75	2.25	3.16	4.84	6.61	1.39
SD	0.27	0.56	0.45	0.38	0.36	0.55	0.72	0.22

Internal Vs. External Locus of Control of Male and Female students

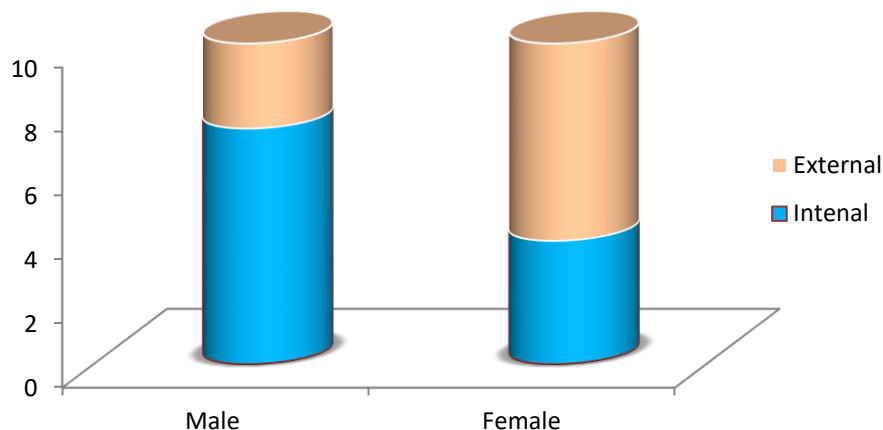


Figure 1. Gender-wise position on locus of control

Comparison of Decision Making Style in Males and Females

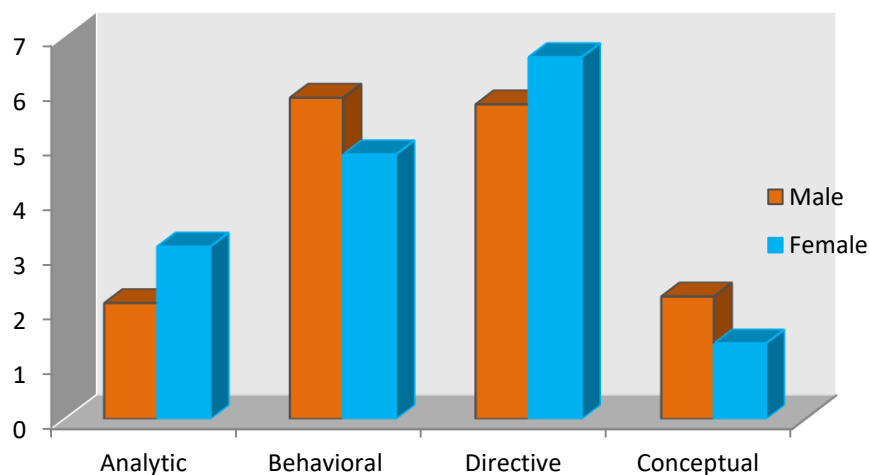


Figure 2. Showing the decision making styles of male and female subjects

Observational Analysis

Each investigator was assigned to give an observation report on each of the subjects relating to their behavioral dimensions. The responses of the subjects were coded and the major themes are discussed below.

1. Most of the boys attributed their success to their own efforts, and failures to the systems. They pressed a need for change in the existing system of education, politics, and administration.
2. Many girls attributed their success to parents, or God, and blamed themselves for their failures.
3. Both boys and girls took responsibility for their actions but boys were observed more genuine than girls.
4. Boys in general were found to take more interest in others, where most of the girls were found to be interested in small groups.
5. Girls were found to be more motivated and persistent, where boys were found to be high performing and problem solving.
6. Girls were found to be more serious about their work and career than boys.
7. Almost all the subjects were found to be physically and mentally healthy.
8. Girls have better problem-focused coping skills than boys, while boys have better emotion-focused coping.
9. Boys were more aggressively involved in their activities than girls, and they prefer to do a number of things simultaneously.
10. Boys were found to be more impatient than girls, but at the same time they were more fun-loving.

The above points of observational analysis explain the fact that during adolescence, particularly in our social context, both boys and girls do not completely adhere to any particular locus of control or decision making styles. Although, they show a trend for internal locus of control and behavioral and directive decision making styles, the findings are not as conclusive as those were for adolescents in western culture (Case, 2001; Weitan, 1991). It may be concluded that the child rearing practices, and the orthodox nature of our society and culture somewhat make our adolescents into a mixed type of locus of control and decision makers. However, boys are relatively more distinct than girls with respect to their decision making and locus of control.

References

- [1]. April, K. A., Dharani, B. & Peters, K. (2012). Impact Of Locus Of Control Expectancy On Level Of Well-Being. *Review Of European Studies*, 4 (2), 138-149.
- [2]. Benassi, V. A., Sweeney, P. D., & Dufour, C. L. (1988). Is There A Relation Between Locus Of Control Orientation And Depression?. *Journal Of Abnormal Psychology*, 97(3), 357.
- [3]. Carlson, N.R., Et Al. (2007). *Psychology: The Science Of Behavior - 4th Canadian Ed.*. Toronto, On: Pearson Education Canada.
- [4]. Dormann, C., Fay, D., Zapf, D. & Frese, M. (2006). A State-Trait Analysis Of Job Satisfaction: On The Effect Of Core Self-Evaluations. *Applied Psychology: An International Review* 55 (1): 27–51.
- [5]. Herbert, M. & Lefcourt, R. (1982). *Locus Of Control: Current Trends In Theory And Research*. Psychology Press.
- [6]. Hock, P. & Roger, R. (2013). *Personality*. In: C. Campanella, J. Mosher, S. Frail, M. Schricker (Eds.), *Forty Studies That Changed Psychology*. Pearson Education, Inc. Upper Saddle River, Nj.
- [7]. Jacobs-Lawson, J. M., Waddell, E. L. & Webb, A. K. (2011). Predictors Of Health Locus Of Control In Older Adults". *Current Psychology* 30 (2): 173–183.
- [8]. Judge, T. A., Locke, E. A. & Durham, C. C. (1997). The Dispositional Causes Of Job Satisfaction: A Core Evaluations Approach". *Research In Organizational Behavior* 19: 151–188.
- [9]. Judge, Timothy A., Erez, Amir, Bono, Joyce E., & Thoresen, Carl J. (2002). Are Measures Of Self-Esteem, Neuroticism, Locus Of Control, And Generalized Self-Efficacy Indicators Of A Common Core Construct?". *Journal Of Personality And Social Psychology* 83 (3), 344-359
- [10]. Man Chung, C., Preveza, E., Papandreou, K., & Prevezas, N. (2006). Spinal Cord Injury, Posttraumatic Stress, And Locus Of Control Among The Elderly. *Psychiatry: Interpersonal & Biological Processes*, 69 (1), 69–80.
- [11]. Martin Brett A. S., Veer Ekant, P. & Simon J. (2007). Self-Referencing And Consumer Evaluations Of Larger-Sized Female Models: A Weight Locus Of Control Perspective" (Pdf). *Marketing Letters* 18 (3), 197–209.
- [12]. Roddenberry, A. & Renk, K. (2006). Locus Of Control And Self-Efficacy: Potential Mediators Of Stress, Illness, And Utilization Of Health Services In College Students. *Child Psychiatry & Human Development* 41 (4), 353–370.
- [13]. Schultz, T. & Schultz, R. (2012). *Social Learning Theory Of Julian B. Rotter*. Archived From The Original, 114-124.
- [14]. Sims, J. & Baumann, D. (1972). The Tornado Threat: Coping Styles In The North And South. *Science* 176, 1386-1392
- [15]. Tkaki, J. & Yano, E. (2016). Possible Gender Differences In The Relationships Of Self-Efficacy And The Internal Locus Of Control With Compliance In Hemodialysis Patients. *Behavioral Medicine* 32 (1), 5–11.
- [16]. Whyte, C. "Effective Counseling Methods For High-Risk College Freshmen (1978). *Measurement And Evaluation In Guidance*. 6, (4). 198-200.
- [17]. Whyte, C. (1986). *An Integrated Counseling And Learning Assistance Center*. New Directions Sourcebook-Learning Assistance Centers. Jossey-Bass, Inc.
- [18]. Whyte, C. B. (1977). High-Risk College Freshman And Locus Of Control. *The Humanist Educator*, 16(1), 2-5.