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The Relationship between Creativity and Identity Formation of Late Adolescents

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《 Abstract 》

There are mixed results concerning the relationship between creativity and identity formation. To reassess the possible relations between creativity and identity formation, 82 college and university students were surveyed. The Real-World Divergent Thinking Tasks for fluency and content analyses was used to assess creativity, and the Washington University Sentence Completion Test was used to assign subjects to four different statuses of identity formation. The results revealed no significant relationship between identity statues and creativity scores; however, male participants demonstrated a significant correlation on the dimensions of problem-finding and post-conformist status. In addition, no statistically significant correlation was observed between content analyses on creativity and ego development.

Research in the area of creativity and identity formation is very limited. The relationship between creativity and identity formation is still a controversial discussion with no clear answer. Many researchers discuss the influence of age on both creativity and identity formation separately (Anna, 1958; Archer, 1982; Archer & Waterman, 1983; Csikszentmihalyi & Robinson, 1986; Jones & Streitmatter, 1987). Some have also indicated the importance of both factors in late adolescents (Ebersole, 1994; Workman & Stillion, 1974). However, none have looked at the relationship of creativity and identity in this age group. Knowing the relationship between creativity and identity formation among this group of age may help to create more effective educational strategies as well as expanding our understanding of the development of creativity.

Guilford (1967) explains creativity as the fluency and flexibility of thinking as well as originality, sensitivity to problems, redefinition and elaboration. Tannenbaum (1983) defines creativity as a construct of formidable complexity and emotional power, driving theorists to language that is grandiloquent and occasionally so florid that it borders on hyperbole. Okuda, Runco and Berger (1991), Marz and Runco (1994) give a recent explanation on creativity. They suggested that real-world problems are more predictive of creative accomplishments than problems in divergent thinking tasks.

To date, the most reliable theory-based definition of ego identity is given by Erikson (1959, 1968). He defines identity in a general level as an invigorating sameness and continuity. More importantly, Erikson considers identity as an age-related factor in his psychosocial development theory. Later on, Loevinger (1976) suggested that the scheme of ego, or character structure, grows by stages that occur in an invariant order. The concept of ego development postulates a more or less organized unity of impulse-control and character, style of interpersonal relations, and self-conception. Loevinger (1976, 1981, and 1996) elaborated Ego development in seven stages and in three transitional phases. These are the pre-social/symbolic (I-1, it is preverbal, so inaccessible to study as sentence completion test); impulsive (E2, I-2); self-protective (E3, Delta); conformist (E4, I-3); self-aware (E5, I-3/4); conscientious (E6, I-4); individualistic (E7, I-4/5); autonomous (E8, I-5); integrated (E9, I-6). Loevinger's stages have often been categorized into four groupings: pre-conformist, conformist, transitional, and post-conformist. This can be understood as Marcia's four identity statuses (1966): identity diffusion, foreclosure, moratorium and identity achievement.

Many researchers have reported some degrees of relationship between creativity and identity formation. Erickson (1968) asserts that trained minds of geniuses have a special identity and special identity problems often leading to a protracted crisis at the onset of their careers. Furthermore, he suggests that moratorium may last longer or reoccur more frequently in creative individuals. Csikszentmihalyi and Robinson (1986) pointed to the critical nature of the adolescent period for

giftedness. They mentioned that both the emergence of formal operational ability and identity formation occur during adolescence.

Gruber (1989) looked at identity and its relation to occupations. He mentions that creative people are those who actively pursue creative work, "To be oneself, one must do these things. To do these things, one must be oneself" (p. 13). Stainer (1985) found in highly creative individuals a heightened need to explore; a need strongly tied to identity. Storr (1986) hypothesized that the motive for creativity may be a quest for identity. He explains that creative people spend their lives trying to discover and consolidate their own sense of identity, and this provides the motivating force for their creative endeavors. He also suggests that each new creative act is a rebellion from the past. In fact, as he mentions, the creativity with each new project is re-enacting the essential adolescent rebellion against the patent that constitutes part of the identity formation process.

Other researchers have been more specific in relation to creativity and identity formation. Some indicated that identity achievement and moratorium subjects are more reflective and stronger in creativity performance (Bourne, 1978; Marcia, 1966, 1980). Some others believed that the same group is more internalized and has more depth at formal operational thought (Bourne, 1978; Marcia, 1980).

Waterman and colleagues (1977, 1979) indicated that identity achievement and self-reported expressive writing are statistically related. The study indicated that poets are more advanced in identity formation than journal writers. It was also found that people in the foreclosure status demonstrate significantly higher degrees of authoritarianism (Bourne, 1978; Marcia, 1966, 1980). Vaillant and McCullough (1982), using longitudinal data from male college sophomores, studied defensive styles and determined that mature ego development (as measured by the Washington University Sentence Completion Test) was significantly associated with creativity. Workman and Stillion (1974) also looked at creativity and ego development, and they found them to be positively correlated using the Loevinger's SCT and the Torrance Test of Creative Thinking with female undergraduates.

However, not many researchers agreed on the relation between creativity and identity formation. In contrast to the findings of some other studies, Valette (1988) found no relation between creativity and identity formation when he studied actors and actresses. Watanabe (1985) also studied the relation between creativity and self-concept in first-grade students. The results indicated no statistically significant difference between the two levels of outcome.

Embersole (1994) studied the relationship between creativity and identity formation in gifted seventh-grade students. Subjects were assigned to four different statues based on their ego identity. The results did not show any statistically significant difference in the creativity of the groups. Later

on, Hanson (1997) explored the relationship between creativity, ego development and parental attachment in early adolescents. The results proved of no relationship between creativity and ego development. However, when they separated women and men, the results partially supported the relationship between creativity and ego development for only male participants. The latter is in agreement with the results from the study of Valliant and McCullough (1982). Surprisingly, the result of Hanson's study (1997) indicates that females are significantly higher than males on the creativity factors of elaboration fluidity and flexibility. Variation of age among subjects of this study and strong changes of creativity and ego identity development between early and late adolescents may cause uncertainty of the results. After his results were released, Ebersole (1994) mentioned that the late adolescents are at the age of greatest variations of identity, which might be found in all four statuses.

The main purpose of this study is to identify the relationship between creativity and identity formation among late adolescents. This is pursued in the interest of meeting the educational needs of late adolescents. If their cognition and specific development on creativity are directly related to identity development, it may be of vital importance for researchers to design educational programs that may help late adolescents to gain better personal success.

Method

Participants

Eighty-six students from John Abbott College and McGill University in Montreal, Canada, took part in this study. Participants were randomly selected from a sample of 200 college or university students in late adolescence. They were all between 17 to 25 (mean age, 20.29), who were registered as a college/ university student at the time of this study. Participants whose first language was not English were excluded from the study. Four participants were diagnosed as outliners and removed from the analysis, rendering the total sample size of 82. The male participants were 45 (30 college students, 15 university students), and the female participants were 37 (15 college student, 22 university student).

Measures

Measures of creativity: a slightly modified version of the scale "the real world divergent

thinking tasks," adapted from Marz and Runco (1994), was adapted in this study. The questionnaire included two problem-solving and two problem-finding tasks (also see Okuda, Runco & Berger, 1991). The present study was designed to re-examine the view of divergent thinking. These included problems about school and home. One of the problem-solving tasks is as follows:

> Sunday is a great day for skiing and your buddy, Frank, asks you to go up North with him for the day. Unfortunately, you have a major assignment due Monday, and it will take you all day Sunday to complete it. You would rather go skiing. What are you going to do? Think of as many ideas as you can.

An example of the problem-finding tasks is:

> Now, list problems that might arise at home. You may write problems about your roommates, parents, brothers and sisters, doing dishes, cleaning, or whatever. Be specific, and keep in your mind that the more ideas, the better.

Divergent-thinking tasks are typically scored for fluency, originality, and flexibility (Hocevar, 1980; Hocevar & Michael, 1979; Runco, 1991). However, in this study, the real world divergent-thinking tasks were scored only for fluency. Previous studies have indicated that the scores in the different task parameters are highly correlated. It is suggested that both flexibility and originality are a function of fluency rather than separate dimensions (Hocevar, 1980; Hocevar & Michael, 1979; Zarnegar, Hocevar & Michael, 1988). According to Baer (1993), fluency scores are highly correlated that the use of a more easily scoreable fluency index would be justified. In the current study, fluency criterion was considered as the number of ideas produced by participant and was used to maximize idea generation. In addition, the answers on creativity were divided according to interpersonal, intra-personal, time, physical environment, resources, and conscience domain.

Measure of ego identity formation: In order to measure identity formation, the Washington University Sentence Completion Test (WUSCT-form 81), also known as Loevinger's SCT (Loevinger, 1981), was used. The 18-items protocol that was used in this study has been previously shown to be valid and reliable (Hy, Bobbitt & Loevinger, 1998). Each sentence stem of protocol is assigned a score from which a total rating score (TPR) was calculated. The scores for the individual sentence stems usually vary. The scores for the individual items are then tallied, and the cumulative frequency distribution is matched with either the automatic or the borderline Ogive score.

Loevinger's ego stages have been categorized into four groupings as well as total ego development score: pre-conformist, conformist, transitional and post-conformist. Early stages are marked by conceptual oversimplification, impulsivity, egocentricity, and opportunism; middle stages by conformity and stereotyped views; higher stages by conceptual complexity, introspection, and

responsibility based on self-evaluated standards (Hy & Loevinger, 1996).

Procedure

All participants were asked to sign a consent form prior to study. The self-administered questionnaires were distributed to the participants in two packets. Students were informed about the study through their teachers and investigators. The investigators first read general instructions and explicitly informed the participants that they could withdraw from the study for any reason, at any time during the study.

The first packet (containing the ego identity development questionnaire) was then distributed, and participants were asked to complete the questionnaire. After completing it, the second packet (containing the creativity questionnaire) was distributed. No strict time limitation was imposed for the ego development questionnaire, whereas participants could use 5 min on each divergent-thinking task. Being timed by the experimenter, they began each task at the same time and did not return to previous tasks after completion of each task. Testing required approximately 1 hr.

The results of creativity and ego identity scores were compared using the Pearson Correlation Coefficient. Due to the results of the correlation, further analysis was performed based on gender of participants. The participants were divided into two groups of male and female, and correlation between creativity and ego identity was calculated for each group separately.

Results

The distribution breakdown for participants by problem solving and problem finding, and Pre-conformist, Conformist, Transitional, Post-conformist ego level is shown in Table 1. In addition, minimum, maximum, means and standard deviations of scores for participants are presented.

Pearson Correlation Coefficients between different domains of creativity and identity formation from the total sample are computed and shown in Table 2. In addition, Correlation Coefficients are computed between the two creativity scores and the four SCT subscale scores, and they are presented in the same table. As indicated in this table, within creativity, domains are strongly related. In addition, within identity, it was observed that domains are also strongly related as predicted.

However, when comparing creativity and identity formation, no statistically significant correlation

was observed. It was hypothesized that results are affected due to the mixture of male and female participants. In order to prevent that, the results of male and female were correlated separately, and the results are reported in table 2. As indicated, creativity and identity were not related for both genders. However, male participants showed a statistically important correlation only between problem finding and post-conformist status ($F = .307$, $p < .05$).

To determine whether the content areas on creativity would have a relationship on ego development, content analyses were done. We divided the content areas on creativity with interpersonal, intra-personal, time, physical environment, resources and conscience in relation to each answer. The descriptive statistics showed the following mean and standard deviation: interpersonal ($M = 16.58$, $SD = 6.91$), intra-personal ($M = 3.02$, $SD = 3.36$), time ($M = 3.60$, $SD = 2.11$), physical environment ($M = 4.29$, $SD = 3.58$), Resources ($M = 3.08$, $SD = 2.60$), conscience ($M = 2.45$, $SD = 1.79$), and ego development ($M = 84.51$, $SD = 6.90$).

Pearson Correlation Coefficients between different domains of creativity and ego identity development of the total sample are computed and shown in Table 3. When comparing content areas on creativity and ego development, no statistically significant correlation was observed. In addition, the results of male and female were correlated separately, and the results are reported in table 3. As indicated, content areas on creativity and ego development were not related for both genders.

Discussion

The results of this study indicate that ego identity formation is not related significantly to the creativity domains. The findings of this study are compared with some other studies in table 4. As indicated, the results of this study support the findings of Ebersole (1994), Hanson (1997), Valette (1988) and Watanave (1985). However, it does not agree with the findings of Waterman, Kohutis, and Pulone (1977) and some other studies (Vaillant & McCullough, 1982; Waterman & Archer, 1979; Workman & Stillion, 1974).

There are a number of limitations in the current and previous studies that one should consider in order to explain the reasons of different findings. One factor that may cause different findings is the use of different measurement tools. For instance, Waterman et al. (1977, 1979) used Ego Identity Interview (Marcia, 1966) to measure ego identity. However, other studies used a self-administered questionnaire. Historically, the Marcia Interview (1966) has offered more accuracy

than some other measurement tools (e.g., OMEIS, Ebersole, 1994). On the other side, a self-administered pencil and paper test is highly dependent on the understanding and judgment of participants from the question.

Creativity measurement in this study was a controlled test with a time limitation of five min for each question. However, Ebersole (1994) found that time controlled creativity measurement decreases creativity level. Also, Akinboye (1982) showed that the relaxed time condition elicited a significantly more creative performance from the participants. He suggests that time pressure may tend to act as blocks to fluency. Although level of creativity may not necessarily influence the correlation between creativity and identity, this might also be a source of bias that may influence the results.

High correlations within the groups of creativity and ego identity statuses are expected since they are measuring the same construct. However, transitional and post conformist status of ego identity in this study had low correlation. Since either of the statuses has strong correlation with other statuses in the same construct, the results might be considered acceptable. Correlation between similar domains in other studies was not available for comparison.

Another factor that may influence the results of studies is the selection of study groups. For instance, the results of many studies indicate that both creativity and ego identity are age-related factors (Ebersole, 1994; Workman & Stillion, 1974). This led us to the importance of age factor on the relation between creativity and identity formation. Anna (1958) suggested that there would never be a more creative time in the life of an individual than during adolescence. In fact, most of the studies that look at the relationship between creativity and identity formation do not classify subjects in different age groups. This may explain the variation in the results of some studies on creativity and ego identity relationship. Secondly, the subjects of some studies were in the beginning stages of identity formation. For example, Archer (1982), Archer and Weatherman (1983), Jones and Streitmatter (1987), Ebersole (1994), Hanson (1997), and Watanave (1985) who studied early adolescents came to a similar conclusion. When looking at data based on gender, correlation was found between post-conformist and problem-finding among male participants. This supports the results of Hanson (1997) who found a higher relationship between creativity and ego development among male participants.

As the finding of this study indicates, creativity and identity formation are not related in late adolescents. However, the results may not be generalized to all late adolescents. The sample of the current study limited the variability on both scales; That is, there are all students who have opted for academic studies. Education, environmental and cultural differences between the participants of this study and target population may influence generalization of the study. Furthermore, the small

size of the sample would also be another factor that warrants further study on this issue. Further study with a larger sample size, including persons outside the academic studies, is needed to clarify this issue.

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CERTIFICATE OF ETHICAL ACCEPTABILITY FOR RESEARCH INVOLVING HUMAN SUBJECTS

A review committee consisting of **three** of the following members:

1. Prof. Evelyn Lusthaus
Department of Educational and Counselling Psychology

2. Prof. John Leide
Graduate School of Library and Information Studies

3. Prof. Margaret Downey
Department of Physical Education

4. Prof. Lise Winer
Department of Second Language Education

5. Prof. Claudia Mitchell
Department of Educational Studies

6. Prof. Kevin McDonough
Department of Culture and Values in Education

has examined the application for certification of the ethical acceptability of the project entitled:
The Relationship between Creativity and the Identity Formation of Late Adolescents

as proposed by:

Applicant's Name KyungHye Lee, Gillan Rejskind, and Hamid Bateni

Applicant's Signature _____

Degree Program _____Granting Agency _____

The review committee considers the research procedures as explained by the applicant in this application, to be acceptable on ethical grounds.

(Signatures)

a) _____Date_____

b) _____Date _____

c) _____Date _____

Associate Dean (Academic)_____Date _____

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STATEMENT OF ETHICS OF PROPOSED RESEARCH

It is assumed that the responses to the questions below reflect the author's (or authors') familiarity with the ethical guidelines for research with human subjects that have been adopted by the Faculty of Education.

1. Informed Consent of Subjects

Explain how you propose to seek informed consent from each of your subjects (or should they be minors, from their parents or guardian). Informed consent includes comprehension of the nature, procedures, purposes, risks, and benefits of the research in which subjects are participating. Please append to this statement a copy of the consent form that you intend to use.

The study will briefly explained to the students by the person administering the tests to participant. Those who are willing to participate in the study will be given a copy of the consent form (attached). They will be requested to read the consent form carefully and ask any questions if needed. Only after they sign the consent form, they will participate in the study.

2. Subject Recruitment

2.1 Are the subjects a "captive population" (e.g., residents of a rehabilitation center, students in a class, inmates in a penal establishment)?

Yes. students in CEGEP/university. However, participation in the program is voluntary. Those who choose to participate in the program will be expected to spend time and fill out the questionnaires.

2.2 Explain how institutional or social pressures will not be applied to encourage participation.

Participants will be told that they can participate in the study only if they want to, and if they refuse, it will not influence on their status at the school in any aspect.

2.3 What is the nature of the inducement you intend to present to prospective subjects to persuade them to participate in your study?

Altruism. Participants who wish will be sent a summary of results.

2.4 How will you help prospective participants understand that they may freely withdraw from the study at their own discretion and for any reason?

They will be told so, both at the information session and in the consent letter.

3. Subject Risk and Well-being

What assurance can you provide this committee (as well as the subjects) that the risks, physical and/or psychological, that are inherent to this study are either minimal or fully justifiable given the benefits that these same subjects can reasonably expect to receive?

There are no foreseeable risks.

4. Deception of Subjects

4.1 Will the research design necessitate any deception to the subjects?

No.

4.2 If so, what assurance can you provide this committee that no alternative methodology is adequate?

4.3 If deception is used, how do you intend to nullify any negative consequences of the deception?

5. Privacy of Subjects

How will this study respect the subjects' right to privacy, that is, their right to refuse you access to any information which falls within the private domain?

They will be told that they can refuse to answer any questions. Also they may omit information that they wish to keep private.

6. Confidentiality/Anonymity

6.1 How will this study ensure that (a) the identity of the subjects will be concealed and (b) the confidentiality of the information which they will furnish to the researchers or their surrogates will be safeguarded?

Each subject will be assigned a code. Names of the subject will be kept separate from the data. They will be available only on a need-to-know basis.

6.2 Further, will the data be aggregated in such a way that even should the identity of the participants become known, no reasonable inference could be made about the performance, competence, or character of any one of these participants?

Yes.

Signature of
researcher:

Date: / /

SUBJECT STATEMENT AND SIGNATURE SECTION

I have read and understood the consent form for this study. I have had the purposes, procedures and technical language of this study explained to me. I have been given sufficient time to consider the above information and to seek advice if I choose to do so. I have had the opportunity to ask questions which have been answered to my satisfaction. I am voluntarily signing this form. I will receive a copy of this consent form for my information.

If, at any time I have further questions, I will contact:

Dr. Gillian Rejskind at (514) 398 4240 Ext. 3436

or

Dr. KyungHye Lee at (514) 398 4253

By signing this consent form I am indicating that I agree to participate in this study.

_____ _____

Signature of Subject Date

If you would like to receive a report of the results, please print your name and permanent address below.

_____

_____

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