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LOYOLA UNIVERSITY CHICAGO

CAREER POSSIBLE SELVES AND THE CONSCIOUS USE OF A
METAPHOR IN AN ADVENTURE RETREAT

A THESIS SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
MASTER OF ARTS

DEPARTMENT OF COUNSELING PSYCHOLOGY

BY
JULIET C. DUERLINGER

CHICAGO, IL

MAY, 1996

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CAREER POSSIBLE SELVES AND AN ADVENTURE RETREAT

Dedicated to Benjamin D. Herington

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ABSTRACT

An adventure retreat was used to explore career possible selves by using a career metaphor in perceived high risk activities to increase the likelihood and number of career possible selves of the participants. The purpose of the retreat was to access the participant's career possible selves and allow them to create more options for themselves while they are in the process of pursuing careers. Using a modified version of the Possible Selves Questionnaire to examine pre and post groups, significant differences were found in one possible self for how likely participants were to pursue this possible self. Significant differences were also found for all possible selves for if the participants had ever thought of that possible self. These results suggest that the participants thought of more possible selves and were more prepared to fulfill possible selves after the adventure retreat.

CHAPTER 1

INTRODUCTION

Markus & Nurius (1986) developed the concept of possible selves as a complement to current conceptions of self-knowledge which are derived from past representations of oneself. Possible selves are defined as cognitive representations of oneself in the future, representing an individual's ideas of what they could become, hope to become, and are afraid to become. While the majority of research done on possible selves has concentrated on issues dealing with delinquency (Oyserman & Markus, 1990), competence and delinquency (Oyserman & Saltz, 1993), optimism and pessimism (Carver, Reynolds, & Scheier, 1994), perceived health in older adults (Hooker, 1992), divorce (Carson, Madison, & Santrock, 1987), adulthood and old age (Ryff, 1991), life span (Cross & Markus, 1991), imagery and performance (Ruvolo & Markus, 1992), and competent performance (Cross & Markus, 1994), there has been very little research on the effect of possible selves on career development (Curry, Trew, Turner & Hunter, 1994). Possible selves are noted to be effective behavior motivators, which is a concept essential to understanding an individual's career aspirations, in turn making career possible selves an important topic to explore.

As an alternate or complement to traditional counseling, experiential education and the adventure programs that commonly accompany the concept have become quite popular (Mason, 1987). There has been roughly 25 years of ongoing research related to adventure programs, however, most authors have concentrated primarily on issues of program development, design and evaluation (Mixdorf and Paugh, 1989; Kaplan, 1974; Berman and Davis-Berman,

1989). Other experiential education research explores psychologically relevant concepts in relation to the adventure experience and make attempts at drawing on specific activities that can account for the change in certain behavior (perceived risk and perceived competence, Priest, 1992; “emptiness” of abused children, Klorer, 1992; marital and family discord, Gillis & Gass, 1993).

The idea of applying a metaphor while in perceived high risk activities during an adventure program was first described by Bacon (1983). The strategy is designed to frame the adventure program with learning objectives that directly relate to the desired outcome, which in the present study would be career possible selves. In an important study, Nord, Connor, Solberg & Scheck (1994) used career metaphors to increase career self-efficacy while engaged in perceived high risk activities during an adventure retreat. The purpose of the retreat was to help students move forward into careers that would prove satisfying for them. Nord et al. (1994) effectively tied together the powerful, positive experiences of perceived high-risk activities with how confident students felt about their career decisions. From the research of Nord et al., the idea of pairing the adventure retreat with possible selves was created. It is believed that the adventure experience will provide a lasting impact on participants due to the metaphor, and will impact the development of or change current possible selves. These possible selves will serve as a motivator for desired behaviors that encourage a person to fulfill that possible self. As a replication of Nord et al., it is hypothesized for the current study that by applying career metaphors in a perceived high risk activity during an adventure retreat the likelihood and number of career possible selves within an individual will increase.

CHAPTER 2

LITERATURE REVIEW

Possible Selves

In order to further explore the relationship between career development and possible selves, it is important to clearly define the concept of possible selves. As introduced by Markus & Nurius (1986), possible selves are representations of what a person might become, would like to become and are afraid of becoming. The concept of possible selves is derived from a cognitive approach to self-concept, using self-schemas as a way of constructing possible selves. Self-schemas are comprised of a person's past experiences, which ultimately shape any expectations the person might have of themselves or a domain in the future. Since what we experience shapes our expectations, this can lead to how confident we feel about our abilities and aptitudes. Possible selves are to be differentiated from Albert Bandura's self-efficacy theory, however (Bandura, 1977). Self-efficacy refers to expectations or beliefs about how one can successfully perform at a given behavior in the present, while possible selves are future-oriented representations of oneself. Oyserman & Markus (1990) state that possible selves are elements of the self-concept, representing fears, goals and motives. They give form, meaning, and direction to these dynamics and are personalized and individualized to give more specific meaning to the motives or goals.

There are three important types of possible selves: expected selves, feared selves and hoped-for selves. For the present study, expected selves, which are selves that one believes one can, or will, realistically become, are the focal point.

As described by Carver et al. (1994), an expected self can be anywhere on a continuum from a very negative self to a very positive self, as each self varies in the nature of their behavioral content. The expected self serves as a concentrated energy that pushes one towards future behaviors and situations, moving a person from the present to the future. The expected self is seen as a realistic goal, instead of a futuristic wish or desire. Possible selves mediate personal functioning and are linked to the dynamic properties of the self-concept, for example, motivation.

Oyserman & Markus' (1990) research was based on the hypothesis that choosing an action depends on the nature of one's possible selves. They stated that possible selves can be viewed as a motivational resource that can provide individuals with control over their own behavior. Even in the most routine behaviors, possible selves are still constructed to carry out these behaviors. For example, a cleaning possible self will encourage someone to engage in behaviors that will fulfill that possible self. It is the desired end-state of this possible self that organizes and energizes the actions related to the expected possible self. Upon considering an image, a sense, or conception of the possible self, a person will either withdraw or continue with the task at hand.

Oyserman & Markus (1990) presented the link between possible selves and motivation as a choice that one makes between competing actions. In their study on possible selves and adolescent delinquency, they sampled 238 youths, ages 13-16, who ranged in their level of delinquency. Each subject was interviewed individually to gather self-reported delinquency data, using an open-ended self-concept measure for possible selves. The open-ended measure consisted of expected, hoped-for and feared selves, and each one was categorized further into more specific-related subscales. A closed-ended self-concept measure was also used in the interviewing process, using a previously used

format of the possible selves questionnaire (Markus & Nurius, 1986) with a 5-point Likert scale. The respondents were asked to rate the extent to which certain self-descriptive statements described them now, described them in the future, and described something they would like to have happen. There were 16 self-descriptors, 8 of which were positive, and the other 8 were negative.

Oyserman & Markus (1990) found that there were similarities between hoped-for possible selves of delinquent and non-delinquent adolescents, but differences in the nature of their expected and feared possible selves. It was concluded that a balance occurs between expected and feared selves when expected fears are offset by feared selves within the same domain. This suggests that for delinquent subjects, their feared and expected selves are not balanced, therefore enhancing their feared selves (being delinquent). They found that nondelinquent subjects did have a balance between their feared and expected selves, thus motivated them to not become engaged in delinquent behavior. This balance provides an outline of the actions and decisions to avoid in order to prevent the feared self (becoming delinquent) from actually forming. A career example of this would be as follows. If someone is afraid that they will not find work and envision an unemployed self but also envision an employed self, they will be motivated to engage in activities that will not result in an unemployed self, thus, resulting in an employed self. Positive possible selves can also be a successful motivator by themselves.

Cross & Markus (1991) examined how individual possible selves vary and change across the life span. It was suggested that individual possible selves are used as psychological resources to motivate and defend the individual. One hundred seventy three respondents who ranged from 18 to 86 in age participated in the study. Each respondent completed a possible selves questionnaire, which included Rosenberg's Self-Esteem Scale. Each respondent listed their own

hoped-for and feared possible selves, and were asked to indicate the two most important hoped-for and feared selves. Finally, they were asked how capable they felt of accomplishing the possible self, and how likely was the possible self to come true (rated on a 7-point scale). The sample was divided into 4 groups, depending on their age (18-24, young adulthood; 25-40 maturity; 40-59, middle age; over 60, old age).

Results of the Cross & Markus (1991) study found significant differences across all age groups in the number of hoped-for and feared selves generated (7.6, 7.2, 6.1, and 5.7 for hoped-for selves; 5.1, 4.1, 3.6, 3.1 for feared selves). Other differences were found among groups in terms of the content of generated selves, whether the possible selves were inclusive of a current self (i.e., stay active) or just a possible self (i.e., to write a publishable article). Differences were also found for the questions of capability and likelihood of generated possible selves among groups. Cross & Markus concluded that their results indicated that the youngest age group felt more capable of accomplishing their possible selves, while believing that their feared possible selves were less likely to come about. Their elders, however, did not share these beliefs. This confidence difference was hypothesized to be due to a lack of realism which is typical of younger adults. Other results found that older respondents described fewer hoped-for and feared possible selves, and the selves they did report fell into more limited categories. Also, older respondents generated hoped-for possible self that reflected doing more of what they were currently doing.

Optimism and pessimism and possible selves were researched by Carver et al. (1994). Using a sample of college students, Carver et al. sorted possible selves into content domains, and rated each one for its positivity and negativity. Similarly to possible selves, optimism and pessimism is related to the concept of motivation, where people strive to reach their positive goals and are able to reach

those goals. Optimism and pessimism are also similar to possible selves in that they are future-oriented. Carver et al. surveyed 81 undergraduate students who completed a measure of optimism, and several weeks later, completed an adapted possible selves questionnaire (including expected, feared and hoped-for possible selves). The results of the study indicated that optimism correlated positively with the positivity of the reported expected selves, but not hoped-for or feared selves. Carver et al. concluded that less optimistic subjects had more diverse possible selves than the optimistic subjects. Carver et al.'s explanation for this conclusion is that less optimistic people react to the threat of a life domain by spreading their psychological investments across several domains.

Ruvolo & Markus (1992) examined performance and possible selves, using the power of imagery to enhance the self. In their three-study article, Ruvolo & Markus used approximately 18 subjects in each section of each of their three studies. In all three of the studies, subjects were asked to imagine being either successful or unsuccessful in the future and were then assigned a task. The imagery manipulation was intended to increase the accessibility of possible selves. Overall, subjects who imagined being more successful performed better on the assigned task. The most revealing results of these studies was that those subjects that imagined themselves as successful, not only performed better, but quickly endorsed a variety of possible, successful possible selves and also rejected any negative, failure-oriented possible selves. Ruvolo & Markus suggested that these results play an important role in representing oneself in the future in performance tasks. Imagining oneself in the future can provide a person with the motivation that can put that future self into motion, while also actively avoiding the negative, undesirable possible self.

As described by the above research, possible selves serve as a blueprint for an individual's personal change and growth in a given domain. This stimulation

of possible selves enables a structure for organizing relevant information of the targeted possible self. As assumed by researchers (Markus & Nurius, 1986; Oyserman & Markus, 1990), possible selves are also seen as behavior motivators and those individuals with more elaborate and specific possible selves have a greater knowledge of what behaviors it will take to create a possible self.

Possible Selves and Careers

While research has focused upon possible selves as encompassing a wide range of selves (e.g., delinquency, life span development), the purpose of this research is to examine career possible selves.

One study was found that evaluated possible selves and careers. Curry et al. (1994) adopted a possible selves framework to explore girls' work orientation and how it affected their life domains. They sampled 240 girls and categorized them as either careerist, or noncareerist, depending on their subject choice in school, attitudes towards career and family, terms of attainment of career, and confidence in traditional and nontraditional occupations. Additionally, the girls were evaluated on variables like self-efficacy, sex-role orientation, person/object orientation, scholastic competence, autonomy and self-worth. The possible selves framework that Curry et al. used was adopted out of the suggestion that women make decisions about employment are made at an early age. It was their intention that by examining the future self-representations of girls, that certain sociocultural and gender biases would emerge from society as the source of women being under-represented and under-paid, especially in scientific and technological fields. The subjects were given a questionnaire that focused on mathematics and gathered information on education, home background, advanced subject choices, future careers and other future plans. Curry et al. found differences in the attitudes, interests, and choices among careerist and

noncareerist girls who have made early decisions regarding their careers.

Differences were also found between careerist and noncareerist girls in who and what influenced their ideas about future careers. Past experiences and influences were taken into account when assessing the differences between the groups and differences in parental influence were found between the careerist and noncareerist groups. Pre-listed gender-traditional and gender-nontraditional careers were also examined. Findings indicated significant differences in t-scores between the two groups in how interested and how confident they were in pre-listed careers. Curry et al. also explains that possible selves are directly concerned with motivation by stating that the concept of possible selves describes how a person's motivations influence their thoughts, feelings and actions. Through this motivation, it is possible for individuals to focus on activities that help achieve certain goals, in this case, career goals. Curry et al. focused on life domains of girls, which included, but was not solely devoted to career development.

Curry et al. (1994) emphasized the importance of possible selves in relation to life domains in young girls, however, it is also important to realize that research is needed in other populations to further explore the different dimensions that contribute to career development and possible selves. Curry et al. had several factors that they measured and accounted for in their analysis of future career decisions of young girls and successfully found differences between groups. The differences Curry et al. found were among self-generated as well as pre-listed occupations. These pre-listed occupations are similar to the career possible selves used in Markus' (1987) Possible Selves Questionnaire. Since Curry et al. found differences in the pre-listed occupations between groups, it is possible that differences could be found in the similar concept of career possible selves.

Experiential Education and Adventure Retreats

The research done that has evaluated possible selves and certain domains have found differences between contrasting groups (e.g., delinquent/ nondelinquent, different age groups). Within all these studies, the subjects remained constant, while the groups were measured in reference to past or current behaviors/situations. One study, Ruvolo & Markus (1992), incorporated an intervention method to their study on possible selves. An imagery exercise was used as the intervention that assumed accountability for differences in a moderately difficult performance task. The outcome measure for this study, a task performance, was not intended to change or impact the subjects' possible selves. Can possible selves be changed or impacted by an intervention method? In the present study, we examined whether an elaborate, experiential adventure retreat could be used as an intervention that would effectively promote career possible selves.

While seemingly a new outlook on counseling and treatment, experiential education, wilderness programs and adventure retreats have been in the field of psychology for several years. Typically, outdoor programs have been considered purely "recreational", however, since the emergence of the Outward Bound program, nature has been seen to encourage and promote physical, social and psychological development. Gillis & Gass (1993) describe the Outward Bound program as a wilderness-based program that teaches self-discipline and teamwork through adventure activities. They continue to describe the activities as a conscious use of physical activities that are combined with group activities to create experiences that encourage a positive self-concept, an internal locus of control, and an increase in problem-solving skills. One problem with programs like Outward Bound is that the focus has been on creating change through the experience of the adventure program itself, not by targeting a specific activity

(aside from typical wilderness/outdoor activities) within the program that could account for the change in the specified domain (Berman & Davis-Berman, 1989; Kaplan, 1974; Mixdorf & Paugh, 1989).

Gillis & Gass (1993) used marriage and family adventure therapy to examine techniques to bring families together. Gillis & Gass' rationale for how the therapy worked included the use of eustress (positive use of stress), unfamiliar environment, action-oriented therapy, and a small group format. The goal of the wilderness program was to promote enrichment in couples and families and other therapeutic issues such as trust, communication and negotiation. The intention of the family and marriage adventure therapy is to provide treatment where traditional "talking" therapy has failed. The adventure therapy concept is essential in the current study; the alternate treatment modality provides a powerful experience that impacts the subjects or clients in a way that is difficult to forget. Past research on adventure therapy indicated that globally measured self-esteem was found to increase after the adventure programming. Other dependent variables, like locus of control, problem solving, and behavioral change have been studied, however, the results have not been as promising.

Other research in experiential education has given attention to particular activities during an adventure retreat in order to bring about change in a specific domain. Kaplan (1974) had 35 high school students participate in an outdoor challenge program and follow-up with self-esteem (Rosenberg Scale of Self-Esteem) and confidence questionnaires. Ten students participated in the outdoor program and completed the questionnaires, while the remaining subjects only completed the questionnaires. Through this procedure, Kaplan attempted to evaluate the outdoor program in terms of its psychological benefits in comparison to a control group. Activities included in the program were rock-climbing, map-reading, ecology, first aid, compass reading, knowledge of woods,

finding food, fire building, setting up camp, and outdoor cooking. Kaplan found immediate differences in psychological benefits following the program (Rosenberg's Self-Esteem measure, $t=2.69$, $p<.02$). Differences were also found between groups on specific camping skills (rock climbing, $t=4.1$, $p<.01$, using a compass, $t=3.27$, $p<.01$). Longer term changes did not replicate the short-term, significant findings.

As introduced by Priest (1992), the Adventure Experience Paradigm is the interaction of risk and competence in a particular domain. When these two factors are balanced, what is known as Peak Adventure is experienced. Priest explains that achieving these Peak Adventures is directly related to how the person perceives the risk involved and their own perceived competence within the domain. Using 233 young adult subjects, Priest used a ropes course to test his theory on risk and competence perception. By giving his participants (pre and post groups) the Dimensions of an Adventure Experience survey, Priest was able to determine how the individual perceived the inherent risk and how they evaluated their own performance. Results of this study did not indicate significant t-test differences between the perceptions of risk and competence for the two groups.

To address the issue of accountability in an adventure program, Bacon (1983) developed the idea of a deliberate use of a metaphor in an experiential education setting. Through stories and metaphors, each adventure activity is directly linked to ideas, concepts, perceived problems and solutions in a specific domain. Focusing on specific learning objectives that are tied to certain tasks, an experience can be amplified and can directly affect the desired outcome, much like the goal of wilderness programs. Nord et al. (1994) used Bacon's idea to create a career metaphor in an adventure retreat in an effort to increase career self-efficacy. Nord et al. had approximately 140 students who were enrolled in a

career development class participate in the adventure retreat. Within the retreat, the perceived high-risk activities were paired with career metaphors to enhance the experience. For example, Nord et al. used the following metaphor that specifically targeted career self-efficacy, called the high wall initiative (a 15-foot wall is in front of the group and they are read the following instructions).

Instructions: We have all met the wall before. This is the wall that represents all the barriers between you and what you want in your career. This is the barrier where you face yourself and realize you can't do this alone (if you think up a way to do this with props, they will be eliminated anyway). This time you have to get help and you will have to give help. There is not another way over. Unless you choose a very low risk career goal, the same will be true in your career. (Nord, et. al, 1994, p.3).

Following the activity, a discussion of the adventure occurs, focusing on specific feelings, perceptions, fears, future tasks and the domain. Nord et al. (1994) used several other perceived risk activities and challenges to encourage efficacious feelings about an individual's career. Examples include a human sized spider's web constructed from cords, a trust fall (emphasizing a "leap into one's future"), and an activity called bridge is out which targeted giving and receiving help during the activity. The discussion and the metaphor experience are used to encourage the individuals to think about their careers and the future goals they hold for themselves. It also provides for processing of the activity of how it relates to an individual's real life career plans. The control group and comparison group either completed the dependent measure before the retreat, or did not attend the retreat, but did complete the dependent measure. The results of the career adventure retreat suggested that three of the four subscales (job search, interview, and personal exploration factors) of the Career Search Efficacy Scale (Solberg, Good & Nord, 1991, 1993, 1994) showed significant differences for

subjects following the retreat when compared to multiple comparison groups. The purpose of this study was to replicate the Nord et al. study using changes in career possible selves as an outcome variable rather than Career Search Self Efficacy.

For the current study, which is replication of Nord et al. (1994), we used possible selves as the dependent measure and how they are impacted after the adventure retreat. It was hypothesized that the conscious use of a career metaphor in an adventure retreat would increase the level of likelihood and number of possible selves of the participants after the retreat.

CHAPTER 3

METHOD

Participants

Sixty-seven students from a medium sized, west coast university who were enrolled in a college career development class participated in the study as a requirement of the course. Of the 67 participants, 44 were Caucasian, 5 were African-American, 10 were Hispanic-American, and 7 were Asian-American. One person did not indicate their ethnicity. Ages of the participants ranged from 18 to 32, with a mean age of 21.01, most of whom were juniors and seniors in college (mean year = 3.46). Each participant was given a number as an identifier on their questionnaires to ensure anonymity.

Instrument

The dependent measure consisted of a modified, closed-ended self-concept questionnaire to assess possible selves, entitled The Possible Selves Questionnaire (Markus, 1987). A list of career possible selves were presented in the questionnaire and each participant was asked two questions of each possible self.

There were 46 career possible selves present in the questionnaire. Sample items included homemaker, psychologist, janitor, lawyer, etc. Each career possible self was rated according to two questions. The first question asked if the item was ever considered as a possible self for the individual and was rated as either "yes" or "no". The second question asked how likely the possible self was

for the individual and was rated on a five-point scale from 1 (extremely unlikely) to 5 (extremely likely).

Previous research (Markus & Nurius, 1986) showed test-retest reliability over a period of one week as .72 for positive possible selves and .89 for negative possible selves. Other research (Oyserman & Markus, 1990) reported one-week test-retest reliability at .79 for positive possible selves. Stability over a three month period is currently being assessed. Carver et al. (1994) found interrater correlations (between two raters) of .86 for hoped-for possible selves, .86 for feared selves, and .92 for expected selves. Validity correlates for the positive possible selves were from .21 to .33 with negative affect on the Derogatis Affect Balance Scale, and .32 and .41 with positive affect for the same scale. Markus & Nurius (1986) compared possible selves to Rosenberg's research on self-esteem and found that positive possible selves the correlates ranged from .34 to .42. The authors of the Possible Selves Questionnaire recognize that more research is needed on convergent and discriminant validity.

Procedure

Adventure retreats took place in the middle of the Fall term and at the beginning of the Winter term. Each retreat lasted two days with approximately 18 hours of adventure experiences and discussions. A quasi-experimental design proposed by Campbell & Stanley (1963) was used to evaluate the effectiveness of the program. The quasi-experimental procedure used was one whereby participants are randomly assigned to either a pretest or posttest evaluation. Differences between the group scores can be attributed to the intervention to the extent that maturation and history factors do not confound the study. Given the short time between pre and post evaluation, it is unlikely that history or maturation would account for changes in ratings following the intervention.

There were twenty students in the Fall retreat, twelve were randomly assigned to the pre-retreat group and 8 in the post-retreat group. Forty students participated in the winter retreat; 25 were randomly assigned to the pre-retreat group and 20 students in the post-retreat group. There were 38 students overall in the pre-retreat group and 29 students overall in the post-retreat group. Group 1, the pre-retreat group, was given the dependent measure immediately before the retreat began and group 2, the post-retreat group, was tested the week after the retreat.

CHAPTER 4

RESULTS

Preliminary Analyses

A planned comparison analysis (independent samples t-test) was used to examine differences between groups and demographic information. No significant differences were found between groups (pre and post retreat) in terms of gender, ethnicity and year in college.

Primary Analyses

To analyze question the question, "How likely is this possible self for you?", a planned comparison analysis (independent samples t-test) was used to determine if expected possible selves increased after the adventure retreat (negative possible selves were removed from the total possible selves). A series of t-tests were used to locate the source of significant differences in possible selves among groups. For the preliminary test, each possible self was subjected to a t-test. No significant differences were found in possible selves among groups.

Mean scores and standard deviations for all possible selves and ATOTAL and BTOTAL are in Tables 1 and 2. An analysis of covariance was conducted to compare the total possible selves means (ATOTAL and BTOTAL) with gender and ethnicity. The results indicated a nonsignificant gender difference for either total, however it did find a significant difference in ethnicity for BTOTAL, $t(62) = 2.288, p < .026$.

Insert Table 1 and 2.

Chi square analysis was used to evaluate responses to the question, "Have you ever thought of this as a possible self for you?" Significant differences were found for all responses to career possible selves for this question ($X^2 = 7.06$, $p < .01$). Results showed that group 1 (pre-retreat) had 54.2% of the respondents answered "no" and 45.8% answered "yes" to question 1, while in group 2 (post-retreat) 49.4% of respondents answered "no" and 50.6% answered "yes" to question 1. Table 3 summarizes these results.

Insert Table 3.

Subsequent chi square analyses were used to evaluate each possible self for question 1 (Have you ever thought of this as a possible self for you?). Significant differences were found in the following possible selves among groups: becoming famous, office worker, and psychologist. The differences found in the possible selves of becoming famous ($X^2=3.99$, $p<.05$) and office worker ($X^2 = 5.11$, $p<.05$) were in the direction that indicated a statistical significance in the number of possible selves. The differences found in the possible self of psychologist ($X^2 = 5.6$, $p<.05$), however, did not indicate statistical significance.

Secondary Analyses

For a post hoc analysis, responses to the question, "How likely is this possible self for you?", were combined only if the respondents answered "yes" for the question, "Have you ever thought of this as a possible self for you?".

Results indicated significant differences between groups only in the psychologist possible self ($t(49) = -2.53, p < .015$).

The result of this t-test suggested that subjects who have already declared majors have preconceptions about their careers. Therefore, a second t-test was performed that grouped the most reported majors (psychology, sociology, business, and communications) from the subjects and compared the pre and post retreat groups with each possible self, however, the results showed no significant differences.

CHAPTER 5

DISCUSSION

The purpose of this study was to explore whether the conscious use of a metaphor in an adventure retreat increased the likelihood and number of possible selves in college students. The likelihood of the subjects' individual, career possible selves did not show significant differences after the adventure retreat, however significant differences in if a person ever thought of the possible self were seen in a few possible selves. These results suggest that participants may have thought of more possible selves as a result of the adventure retreat. More importantly, the results suggest that those participants who had previously thought about a certain possible self showed significant differences among groups in the likelihood of the possible self in one career possible self; psychologist.

Chi square analysis of the responses to question 1 showed significant differences in overall possible selves after the intervention method (retreat). This suggests that participants thought of more possible selves after they attended the retreat. The analysis also showed that two of the possible selves (becoming famous and an office worker) increased after the adventure retreat. The psychologist possible self, however, decreased after the adventure retreat. This finding was in direct opposition to this study's other significant findings which indicated an increase in the likelihood of the psychologist possible self. An explanation for this finding could be that of the 27 psychology and sociology majors (40.3% of the total sample) in the entire sample (N=67), 66% of these psychology/sociology majors were in group 1, the pre-retreat group. As

psychology and sociology majors, it would follow that they had previously thought of becoming a psychologist. Any significant results from the retreat may have been erased by the number of psychology-related majors in the pre-retreat group.

The absence of the current study's significant results determining if the likelihood of the career possible selves would increase should be interpreted with care. The small sample size used ($N=67$), the modified possible selves questionnaire, not taking into account the past history of the participants, and/or the measure not being sensitive enough to measure small changes are reasons enough to produce nonsignificant results.

Previous research on possible selves that revealed changes in possible selves in the specified domain used different varieties for measuring possible selves. Oyserman & Markus (1990) used more than one variety of possible selves measurement to indicate significant changes in delinquent boys, including both open and closed-ended questionnaires. Expected, feared and hoped-for possible selves were also included in their study, and did not use a type of intervention to alter the subject's possible selves. Past behaviors (self-reported delinquency) determined which group the subjects would fall into, not a pre and post intervention group.

Oyserman & Markus (1990) also focused on the balance of feared and expected selves, suggesting that this balance is the motivator of behavior towards a possible self. The present study did not include the balance between these two possible selves. In the present study, it was perhaps unrealistic to expect differences among participants who had such diverse backgrounds (past behaviors and influences) and career interests without taking these differences into account. It also seemed difficult to provide all the participants with a metaphor that could fit with their own, individualized possible selves.

Since each person has different possible selves, it would be necessary to understand these possible selves to adequately target the specific behaviors that are linked to that possible self. It was our hope that by isolating the more popular majors and subjecting them to t-tests, more specific behaviors would be targeted (within individuals with similar career interests) and consequently, more significant results would emerge. Unfortunately, the smaller sample size of the new “major” groups most likely destroyed any significance that might have been found.

The research of Ruvolo & Markus (1992) had a similar design to the present study in that the participants of their study were subjected to an intervention. While the designs were similar, the dependent measure was very different. Ruvolo & Markus used the performance on a moderately difficult task to measure the outcome of the positive or negative imagery, not a possible selves questionnaire designed by its authors (Markus & Nurius, 1986). Thus, it was not the differences in possible selves that Ruvolo & Markus were looking at, but the success rate of a performance task.

Since this study was a replication of Nord et al. (1994), it is important to note the difference between the two studies in order to improve the procedure for the next retreat.

Despite the fact that Nord et al. used the Career Search Efficacy Scale (Solberg et al., 1994) and not possible selves to evaluate the effectiveness of the adventure retreat, there are other differences between the two studies. As noted in the literature review of this study, self-efficacy and possible selves are similar, however possible selves are interpreted as future-oriented representations of oneself, while efficacy is a present feeling of how one feels about their abilities and aptitudes. The original retreat was designed to measure self-efficacy in terms of their career plans, behaviors, and goals. Since the retreat was designed

in this fashion, it is safe to assume that the procedures of the retreat did not change from its original form. It is possible, then, that the retreat still had a “present-oriented” focus, even though future tasks and careers were being addressed. In this present-oriented style, the motivational aspect of possible selves could be over-turned and the impact of the possible selves would be lost.

Nord et al. (1994) found difference in three of their four Career Search Efficacy Subscales. Two of the subscales had to do with concrete tasks of getting a job or starting a career (interviewing techniques, the job search strategies), however, they did not target specific behaviors and requirements that were associated with certain careers. In this version of the retreat, the dependent measures were much more specific (i.e., physician, lawyer), and required that the participants quickly and specifically identify which careers they had previously thought of and how likely it would be for them to end up in that career. If the retreat was not designed or intended to target these future behaviors, then the outcome measure of possible selves would not have been adequately triggered, and thus, would result in nonsignificant results.

This group of participants were all enrolled in a career development class and were not supposed to have an accurate idea about their career futures, however, only four students had undeclared majors. Those individuals who had already declared their major, seemed pretty well set in their ideas about their future careers, while the undeclared individuals may not have had enough information about certain careers (due to inexperience or lack of knowledge) to make quick judgments about future careers. It was our intention to single out those more popular majors to reveal the significant differences, however, the smaller sample size that was created was apparently too small to indicate any changes. It would more appropriate to change the targeted population to

adolescents, who are just at the brink of discovering “what will I become” in their developmental stages.

The differences among retreat participants could also be a factor to be examined. According to the research of Cross & Markus (1991), the number of possible selves generated decrease with age. The likelihood of achieving certain possible selves also decreased with age, indicating that younger individuals think of more possible selves that they believe that the possible selves are more likely to occur. The mean age for the participants of the present study was 21.01, indicating an older sample that may possibly generate fewer possible selves and believe that their possible selves are less likely.

The significant differences that were found in the current study for psychologist, have special significance within this group of participants. As stated in the results section, one of the t-tests run on the sample consisted of responses to the second question, only if the first question was answer “yes”. The only significant finding for this newly created variable was under the possible self of psychologist. This is extremely important because 27 of the 67 participants (40.3%) were psychology or sociology majors, most likely indicating a large portion of the responses to this variable. Although it is not similar to the type of variable used, this finding replicates the findings of Nord et al. (1994) for an increase in variables after the adventure retreat. It is also important to note that there was also significant differences between groups in the responses to the first question in the psychologist possible self, too. This suggests that participants thought of becoming a psychologist more in the post-group than in the pre-group. Both of these findings are consistent with previous research (Ruvolo & Markus, 1992) that indicate a change in possible selves after an intervention.

It would be useful for future research to study possible selves and careers while taking into account the differences between the people who would be participating in the study. From the current study's research, it is evident that possible selves are constructed earlier in life, and while an adventure retreat may be able to modify those possible selves to some degree, many people's past influences and experiences have an overriding effect on the construction of possible selves. If possible, future research should target a younger population, in order to readily access newly formed possible selves.

Future research may also want to explore the differences among the participants of the adventure retreat. Much like Oyserman & Markus (1990) and Carver et al. (1994) did by identifying delinquent adolescents or optimistic or pessimistic persons prior to examining their possible selves. Or, even as the current study attempted to do, single out the most popular majors and examine the most likely possible selves before and after the retreat.

The final suggestion for future research would include the retreat itself. While the metaphor in the retreat may be a powerful and long-lasting effect, it must be directly targeted at specific behaviors in order for the possible self to be activated. This, of course, would be useless if the subjects varied in their conceptualization of possible selves. Since possible selves are so personalized, it is very difficult to apply a metaphor to an entire group of participants.

Although significant differences were found between groups, it is important to examine the findings as likely due to Type I error rates. The probability of finding significant results that are due to chance increase with the number of comparisons made. Therefore, with the number of comparisons made in the present study, it is likely that the significant findings for the three individual possible selves and the psychologist possible self are due to chance. In addition, the significant results for the total responses should also be

interpreted with caution. Statistical significance does not mean that the retreat was effective in increasing possible selves (especially the significant differences found in the individual possible selves). There are other variables that have already been discussed (past or current influences, nature and strength of the metaphor) that may also contribute to the construction of an individual's possible selves. The results found in the present study should not be generalized to populations outside students enrolled in a career development course.

Another consideration of this study would be the power of its statistical test. It is possible that statistical significance may have been found in the individual possible selves if the statistical test was more powerful. For future research, a larger sample size would be recommended. Another way to increase power would be to increase the strength of the adventure retreat, as mentioned above (a more applicable, stronger metaphor or having a future-oriented focus in the retreat).

In terms of implications of possible selves and its link to career development, results to this point suggest that further exploration is needed. The idea behind possible selves is enormous, identifying and exploring the motivations and behaviors behind the goals we strive for. Tapping into this construct has been found to be ground-breaking in terms of understanding why people behave as they do. Further research may expand the applications and interventions applied with this construct by extending its study to different populations, more homogenous groups, diverse interventions, and more direct ways at accessing possible selves.

APPENDIX 1
MEANS AND STANDARD DEVIATIONS FOR
QUESTION 1

Table 1. Means and Standard Deviations in Career Possible Selves
for Question 1

Career Possible Self	Mean	Standard Deviation
Architect	.42	.50
Artist	.46	.49
Author	.49	.40
Bartender	.43	.50
Business executive	.82	.39
Repair cars	.33	.47
Carpenter	.13	.34
Celebrity	.63	.49
Computer programmer	.12	.33
Conservationist	.78	.42
Dentist	.26	.44
Famous	.64	.48
Graduate School	.92	.27
College Graduate	1.00	.00
Grandparent	.93	.26
Hairstylist	.22	.42
Homemaker	.59	.50
Insurance Agent	.19	.40
Janitor	.02	.12
Lawyer	.48	.50
Media Personality	.75	.43
Model	.38	.49
Musician	.30	.46
Nuclear Physicist	.04	.21
Office Worker	.81	.40
Business Owner	.88	.33
Philanthropist	.58	.50
Physician	.51	.50
Policeman	.35	.48
Politician	.28	.45
Priest	.06	.24
Prison Guard	.03	.17
Professor	.58	.50

Table 1. continued

Career Possible Self	Mean	Standard Deviation
Psychologist	.78	.42
Supreme Court Justice	.27	.45
Taxi Driver	.01	.12
Teacher	.89	.31
Truck Driver	.06	.24
Welfare Worker	.37	.49
ATOTAL	.49	.12

APPENDIX 2
MEANS AND STANDARD DEVIATIONS FOR
QUESTION 2

Table 2. Means and Standard Deviations in Career Possible Selves
for Question 2

Career Possible Self	Mean	Standard Deviation
Architect	1.81	1.04
Artist	2.26	1.24
Author	2.13	1.18
Bartender	2.00	1.08
Business executive	3.45	1.26
Repair cars	1.98	1.09
Carpenter	1.27	.58
Celebrity	2.19	1.01
Computer programmer	1.43	.62
Conservationist	2.92	1.01
Dentist	1.58	.91
Famous	2.48	1.00
Graduate School	4.06	1.14
College Graduate	4.92	.32
Grandparent	4.22	1.17
Hairstylist	1.53	1.00
Homemaker	2.59	1.32
Insurance Agent	1.60	.86
Janitor	1.10	.31
Lawyer	2.27	1.18
Media Personality	2.69	1.22
Model	1.94	1.10
Musician	1.67	1.05
Nuclear Physicist	1.12	.42
Office Worker	3.02	1.21
Business Owner	3.32	1.13
Philanthropist	2.71	1.34
Physician	2.15	1.30
Policeman	1.53	.81
Politician	1.73	.97
Priest	1.09	.34
Prison Guard	1.29	.64
Professor	2.47	1.15

Table 2. continued

Career Possible Self	Mean	Standard Deviation
Psychologist	2.98	1.28
Supreme Court Justice	1.66	1.09
Taxi Driver	1.15	.45
Teacher	3.54	1.17
Truck Driver	1.17	.50
Welfare Worker	.213	1.32
BTOTAL	2.47	.47

APPENDIX 3
TOTAL RESPONSE TO QUESTION 1

Table 3. Total Responses to Question 1 by Group

	Response	
	No	Yes
Group 1 Pre-retreat	54.2%	45.8%
Group 2 Post-retreat	49.4%	50.6%

Significance: chi square = 7.06, d.f. = 1, $p < .01$

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March 19, 1996

Julie Duerlinger
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Dear Ms. Duerlinger:

This letter is to convey permission for your use of the possible selves questionnaire and related information in your graduate studies and dissertation.

Sincerely,



Hazel Rose Markus
Professor

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VITA

The author of this manuscript completed her undergraduate work at the University of Wisconsin-Madison in 1992. During her undergraduate work the author participated in many research projects which provided her with practical research experience. After graduating with a Bachelor of Arts in Psychology, the author gained work experience within the field of psychology. She was a research assistant for a university professor, worked at a day program for behaviorally disordered children, and worked in a locked facility for adolescents at a psychiatric hospital. The author entered graduate school, full-time at Loyola University in the Fall of 1994, where she plans to graduate in May, 1996. The author's professional goal is to provide short-term counseling services to individuals who are experiencing emotional, familial, or adjustment difficulties using psychotherapy, play/recreational therapy, and experiential activities/education.

THESIS APPROVAL SHEET

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The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the committee with reference to content and form.

The thesis is, therefore, accepted in partial fulfillment of the requirements for the degree of Master of Arts in Community Counseling.

3/29/96
Date



Director's Signature