

The Effects of Parenting and Identity on Decision-Making Styles

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THE EFFECTS OF PARENTING AND IDENTITY ON DECISION-MAKING
STYLES

by

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A thesis submitted in partial fulfillment of the requirements
for the Honors in the Major Program in Psychology
in the College of the Sciences
and in the Burnett Honors College
at the University of Central Florida
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Thesis Chair: Dr. Steven Berman, Ph.D.

ABSTRACT

This paper explores the influences of parenting and identity on decision-making style. Although links have been found between certain aspects of (1) parenting and identity, (2) identity and decision-making, and (3) parenting and decision-making, no study prior to this one, has examined all three variables together. In a college sample (N = 136), parental psychological control was found to be associated with ruminative identity exploration and identity distress. In regard to decision-making, Rational Decision-Making style was found to be related to identity exploration and identity commitment, while Spontaneous Decision-Making was associated with parental Psychological Control. A hypothesis that identity would mediate the relationship between parenting and decision-making was tested, and while none of the variables met criteria, the one that came closest was Ruminative Identity Exploration and Identity Distress potentially mediating the relationship between parental Psychological Control and Avoidant Decision-Making. Future studies may want to replicate and explore this possibility further.

Acknowledgement

I would like to acknowledge everyone in my life who has given me a tremendous amount of support during this time of my life. Thank you all for believing in me and reminding me that I am capable of greatness if I so choose to pursue it. I would also like to thank my Thesis Chair, Dr. Steven Berman, who has been so patient and understanding and a phenomenal advisor and mentor and who, without his help, this Thesis would not have been possible. I would also like to thank Dr. Matthew Chin for generously agreeing to give of his time and serve on my committee.

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INTRODUCTION

Identity Development

Following in the footsteps of Erik Erikson (1959), James Marcia (1966) operationalized identity in a way that it could be measured. He divided this new measurement of identity into two continuums: Exploration and Commitment. Identity exploration involves asking oneself questions such as “what are the roles, goals, and values that I want to define me?” This involves exploring career opportunities, friendships and romantic relationships, religious beliefs, etc. Identity commitment refers to ultimately deciding on choices you presented to yourself during the Identity Exploration phase. Choosing a career, choosing your group of friends, choosing your romantic partner, etc. People go through exploration and commitment to various degrees. Marcia describes these as four different identity statuses: diffusion, foreclosure, moratorium and achievement. People who have not explored any options to help them identify who they are and have also not committed to anything are considered to be in the diffusion status. People who have not explored any options but have committed to something are considered to be in the foreclosure status. An example would be young people with authoritarian parents who tell them what and who they should be. The Moratorium status categorizes people who have explored a number of options, but are not yet ready to commit, and lastly, there is the achievement status which refers to the situation when all options have been explored and certain commitments have been made.

Luyckx and colleagues (2008) expanded on Marcia’s model of identity statuses. Their model suggests three distinct types of exploration and two types of commitment. These are exploration in depth, exploration in breadth, and ruminative exploration, as well as commitment

making and identification with commitment. Exploration in breadth is most similar to Marcia's concept of identity exploration, whereas exploration in depth is more focused on reconsidering one's commitments. Ruminative exploration is an unproductive search strategy whereby someone obsesses over exploring their options, being overwhelmed by the options and/or consequences of making a decision and is therefore stuck in an unending moratorium that does not lead to commitment. Commitment making is much the same as Marcia's commitment dimension. Identification with commitment is a higher level of connection and identification with one's choices and commitments, i.e., they see themselves in their commitments.

Parenting

Maccoby and Martin (1983) developed a model of parenting style based on two dimensions: responsiveness and control. Responsiveness refers to the degree to which parents show love and care for their children, and concern for their children's needs. Control refers to the degree to which parents monitor their children's behavior and attempt to make it conform to their expectations. Control can be further broken down into two types: behavioral control and psychological control. Behavioral control typically involves having explicit rules, along with certain rewards and/or punishments for following or violating those rules. Psychological control typically relies on emotional and sometimes manipulative appeals to guilt or love withdrawal. (Barber, 1996). Soenens and colleagues (2007) suggested that autonomy support is a fourth dimension of parenting. Autonomy support refers to the degree to which parents foster and encourage the development of independence and self-sufficiency in their children.

Decision-Making

After close examination of a number of definitions of decision-making, Scott and Bruce (1995) concluded that there are four decision making styles: rational decision-making, intuitive decision-making, dependent decision-making, and avoidant decision making. During validation

of their measure, a fifth style was discovered; Spontaneous. Rational decision-making is a process whereby someone conducts a thorough search of possible alternatives and evaluates them on logical grounds. Intuitive decision-making relies more on hunches and internal feelings about the correctness of the possible choices. Dependent decision-making involves seeking out advice and suggestions from other people in order to make the choices. Avoidant decision-making is characterized by trying to not make a decision. Finally, the spontaneous decision-making style is typified by attempting to make decisions quickly and impulsively without long deliberation.

Parenting and Identity

Koepke and Denissen (2012) suggested that identity development and separation–individuation in parent–child relationships are related tasks of psychosocial maturation. They hypothesize that parent–child transactions in the transitions between childhood and adolescence and between adolescence and emerging adulthood can explain and predict interpersonal differences in young people’s autonomy, separateness, attachment, and identity.

Ragelienė and Justickis (2016) examined parenting styles in relation to adolescent identity development among 804 adolescents, from 14 to 18 years old. They found that the democratic parenting style positively predicted differentiation of self in boys, while authoritarian parenting style negatively predicted differentiation of self for both boys and girls. Furthermore, they found that the authoritarian parenting style was related to identity diffusion.

In a two-wave longitudinal study of first and second year of post-secondary education students in Belgium (N = 639), Beyers and Goossens (2008) examined short-term changes in parenting and identity formation during late adolescence. They found that parenting predicted the explorative phases of identity formation (i.e., exploration in breadth and commitment making),

while evaluative phases of identity formation (i.e., exploration in depth and commitment identification) predicted more supportive parenting.

Identity and Decision-Making

Pellerone, Passanisi, and Bellomo (2015) looked at identity development and decision making among Italian adolescents in Sicily (N = 417), aged 16-19, in their fourth or fifth year of senior secondary school. High-school performance was found to be positively associated with the rational decision-making style and identity diffusion predicted use of the avoidant style.

Parenting and Decision-Making

Kimmes and Heckman (2017) studied parental influences on the higher education decision-making process of young adults, using data from the National Longitudinal Survey of Youth (1997). Sponsored by the Bureau of Labor Statistics, a sample of 8984 youths in the United States born between 1980 and 1984 were interviewed annually from 1997 until 2011 and then biannually thereafter. Path analysis revealed that parenting styles were indirectly associated with college enrollment. They concluded that parenting style affects the child's beliefs, expectations, and attitudes, which eventually influence the decision of whether to go to college.

Parenting, Identity, and Decision-Making

Although links have been found between certain aspects of (1) parenting and identity, (2) identity and decision-making, and (3) parenting and decision-making, no study has examined all three variables together. It is hypothesized here that parenting influences identity, and that identity influences decision-making. More specifically, an attempt will be made to replicate the previously reported relationships, as well as testing a novel theory of mediation between the three concepts. Thus, four hypotheses will be tested:

H1: Perceived parenting will be significantly related to identity

H2: Identity will be significantly related to decision-making style

H3: Perceived parenting will be significantly related to decision-making style

H4: The effects of perceived parenting on decision-making will be mediated by identity (see

Figure 1).

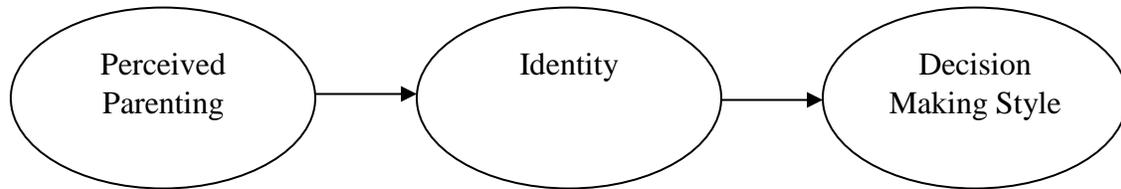


Figure 1 Identity Mediates the Relationship between Perceived Parenting and Decision-Making

METHODS

Participants

This study included 136 participants, of which, 53.7% were male. Grade distribution included 55.9% first year students, 19.9% second year students, 15.4% third years, and 8.7% fourth year students and above. Ethnic/racial distribution was 47.8% White, non-Hispanic; 22.1% Hispanic; 12.5% Black, non-Hispanic; 8.8% Asian, and 8.8% identified as mixed or other. The ages of the participants ranged from 18 to 35 years with a mean of 19.68 and standard deviation of 2.60.

Measures

Demographic Questionnaire. A demographic questionnaire was utilized to obtain information of each participant regarding their race/ethnicity, age, gender, and year in college.

The Leuven Adolescent Perceived Parenting Scale (LAPPS; Soenens et al., 2004) The LAPPS has 28 items to measure parenting style on four dimensions: Responsiveness, Behavioral Control, Psychological Control, and Autonomy Support. A series of statements were rated on a 5-point Likert scale ranging from 1 (completely disagree) to 5 (completely agree). Examples of statements within each dimension are as follows, “My mother/father smile at me very often” (Responsiveness), “My mother/father is very strict with me” (Behavioral Control), “My mother/father is always trying to change me” (Psychological Control), and finally “My mother/father allows me to decide things for myself” (Autonomy support). Internal consistency reliability (Cronbach’s alpha) for this measure has been reported to range from .81 to .83 (Beyers & Goosens, 2008). In the current study, the alpha was .92 for Responsiveness, .85 for Behavioral Control, .89 for Psychological Control, and .79 for Autonomy Support.

Dimension of Identity Development Scale. (DIDS; Luyckx et al., 2008) assesses identity processes with respect to future plans and possible life paths. This model is broken up into five dimensions. Participants were presented with a series of statements which they rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Examples of statements within each dimension are as follows, “I think about different goals I might pursue” (Exploration in Breadth), “I think about whether my future plans match what I really want” (Exploration in Depth), “I worry about what I want to do with my future” (Ruminative Exploration), “I have decided on the direction I am going to follow in my life” (Commitment Making), and finally “I am sure that my plans for the future are the right ones for me” (Identification with commitment). Across different samples, Cronbach’s alpha ranged between .83 and .93 for the commitment scales and .76 and .87 for the exploration scales (Luyckx et al., 2008). In the current study, the alpha was .94 for Commitment Making, .90 for Exploration in Breadth, .86 for Ruminative Exploration, .88 for Identification with Commitment, and .66 for Exploration in Depth.

Identity Distress Survey (IDS). The Identity Distress Survey (Berman, Montgomery, & Kurtines, 2004) is a 10-item measure used to assess overall identity discomfort. The Identity Distress Scale measures discomfort in terms of the time frame experienced, severity, and interference in daily functioning in regards to the following domains: religion, sexual orientation, goals, career choices, values, group affiliation, and friendships. Participants were asked to rank their discomfort on a 5-point Likert scale ranging from 1 (not at all) to 5 (very severely) on the aforementioned domains. Reported internal consistency of the Identity Distress Scale has been measured at .84, and test–retest reliability at .82. In the current study, the alpha was .81.

General Decision Making Scale (GDMS). The General Decision Making Scale (Scott & Bruce, 1995) is a 25 item measure that assesses five decision-making styles: Rational, Intuitive,

Dependent, Avoidant, and Spontaneous. Participants ranked their resonance to a series of statements on a 5 point Lykert type scale ranging from strongly disagree to strongly agree. Examples of statements within each dimension are as follows, “I make decisions in a logical and systematic way” (Rational), “I generally make decisions that feel right to me” (Intuitive), “I use the advice of other people in making my important decisions” (Dependent), “I postpone decision making whenever possible” (Avoidant), and finally “I make quick decisions” (Spontaneous). The five styles measured by this scale were confirmed by factor analyses, and the pattern of correlations among the various styles suggest conceptual independence among the five styles. In the current study, the alpha was .70 for Rational, .64 for Intuitive, .77 for Dependent, .89 for Avoidant, and .58 for Spontaneous.

Procedure

Participants were recruited through the UCF Psychology Participant Recruitment System (aka, SONA). The SONA system is designed to accommodate students who are looking to serve as participants in a psychology study, either for course credit or as a course requirement. Following approval by the University of Central Florida’s Institutional Review Board (IRB) this project was submitted to the SONA System Coordinator for approval. Participants enrolled in courses requiring research participation received credit for completing the survey. The amount of credits was determined by SONA guidelines. Those that wanted to receive the credit but did not want to participate in research were offered alternative assignments. Perspective participants accessed the survey through the SONA system. Following acquisition of informed consent, participants were directed to the survey. Those declining consent were directed to the end of the survey and no data were collected. Anyone who took the survey in under 5 minutes (10.5%) was deleted from the data set, resulting in 136 remaining participants

RESULTS

Preliminary and Descriptive Analyses

The maximum and minimum scores along with the mean and standard deviation for all the scales are presented in Table 1. All measures were assessed for differences based on demographic variables. Based on t-test analyses, the only gender differences were found on specific scales of identity and decision-making. With regard to identity development, measured by the Dimensions of Identity Development Scale, females scored significantly higher on Exploration in Depth, ($t_{(134)} = 2.54, p = .012$). In regard to decision-making, as measured by the General Decision-Making Scale, females scored significantly higher in Intuitive Decision-Making ($t_{(134)} = 2.57, p = .011$).

A one-way Analysis of Variances (ANOVA) was conducted for ethnic differences, and the only significant difference found was on the Behavioral Control subscale of the Perceived Parenting Scale ($F_{(4, 131)} = 5.80, p < .001$). A Scheffe post-hoc analysis showed participants who identified as White scored significantly lower than those who identified as Hispanic ($p = .010$) or Asian ($p = .008$).

None of the measures were correlated with age, however, further one-way ANOVAs were conducted for education/year in school. The ANOVAs showed a significant difference on several of the Identity Development subscales. In regard to Ruminative Exploration ($F_{(3,132)} = 4.65, p < .004$) a Scheffe posthoc analysis found that third year students scored significantly lower than first year students ($p = .022$) and fourth year and above students ($p = .012$). Fourth year and above students scored significantly higher than first year- ($p = .012$), second year ($p =$

.025), and third year students ($p = .002$) in regard to Exploration in Depth ($F_{(3,132)} = 5.35, p < .002$).

On the decision-making measure, there was a significant difference on the Intuition ($F_{(3,132)} = 5.67, p = .001$) and Dependence subscales ($F_{(3,132)} = 3.10, p < .029$). For Intuition, third year students scored significantly lower than first year ($p = .010$) and fourth year and above students ($p = .004$). Although there was an overall significance for the Dependence subscale, when a Scheffe post-hoc test was conducted, no significant differences between grades were found at the $p < .05$ level.

Main Analyses

Hypothesis 1

To determine if perceived parenting was significantly related to identity, a correlational analysis was conducted (see Table 2). The test revealed that Identity Distress was significantly related to all four perceived parenting scales. It was positively correlated with Behavioral control ($r = .19, p = .031$) and Psychological Control ($r = .32, p < .001$) and negatively correlated with Responsiveness ($r = -.24, p = .005$) and Autonomy Support ($r = .19, p = .024$). Psychological control was also significantly and positively correlated with Ruminative Exploration ($r = .22, p = .011$), and Autonomy Support was significantly correlated with Exploration in Breadth ($r = .19, p = .031$).

Hypothesis 2

Another correlational analysis was conducted to determine if identity was significantly related to decision-making (See Table 3). All decision-making styles were related to certain aspects of identity formation. Rational Decision-Making was significantly and positively

correlated with Commitment Making ($r = .39, p = .01$), Exploration in Breadth ($r = .28, p = .01$), Identification with Commitment ($r = .37, p < .001$), and Exploration in Depth ($r = .41, p < .001$). Intuitive Decision-Making was significantly correlated with Exploration in Breadth ($r = .24, p = .006$), Ruminative Exploration ($r = .23, p = .006$), and Exploration in Depth ($r = .29, p = .001$). Dependent Decision-Making was significantly correlated with Ruminative Exploration ($r = .21, p = .014$), Exploration in Depth ($r = .32, p < .001$), and Identity Distress ($r = .22, p = .010$). Avoidant Decision-Making was significantly and negatively related to Commitment Making ($r = -.35, p < .001$) and Identification with Commitment ($r = -.42, p < .001$). In addition, it was significantly and positively related to Ruminative Exploration ($r = .33, p < .001$) and Identity Distress ($r = .32, p < .001$). Finally, Spontaneous Decision-Making was only correlated with Identity Distress ($r = .21, p = .016$).

Hypothesis 3

To determine if perceived parenting was significantly related to decision-making, an additional correlational analysis was conducted (See Table 4). The test revealed that Psychological Control was significantly and positively correlated with Avoidant Decision-Making ($r = .17, p = .046$) and Spontaneous decision-making ($r = .30, p < .001$). Responsiveness was significantly and positively correlated with Intuitive Decision-Making, while Autonomy Support was significantly but negatively correlated with Avoidant Decision-Making ($r = -.21, p = .014$).

Hypothesis 4

This hypothesis predicted that the relationship between perceived parenting and decision-making would be mediated by identity. To test this hypothesis, a series of multiple regression

analyses were conducted. As proposed by Holmbeck (1997), two significant relationships must be proven before determining mediation. Variable A (perceived parenting) must predict Variable B (identity) and Variable A must also predict Variable C (decision-making). Finally, Variables A and B must be tested together to predict Variable C. However, Variable A's relationship with Variable C should no longer be significant, when controlling for Variable B. This means that perceived parenting should have a direct effect on identity and an indirect effect on decision-making through identity.

The first condition for mediation is that Variable A (perceived parenting) must predict Variable B (identity). To establish this, regression analyses were run separately to predict each identity subscale. Age and Gender were entered on Step One and the parenting variables were entered on Step Two. The equation was significant for predicting Ruminative Exploration ($R^2 = .11$, Adjusted $R^2 = .07$, $F_{(6, 129)} = 2.78$, $p = .014$) with standardized beta coefficients reaching significance for Age ($\beta = -.17$, $t = -2.02$, $p = .046$) and Psychological Control ($\beta = .29$, $t = 2.85$, $p = .005$). The equation was also significant for predicting Identity Distress ($R^2 = .13$, Adjusted $R^2 = .09$, $F_{(6, 129)} = 3.16$, $p = .006$) with standardized beta coefficients reaching significance for Psychological Control ($\beta = .26$, $t = 2.59$, $p = .011$).

The second condition for mediation is that Variable A (perceived parenting) must predict Variable C (decision-making). This condition was only tested for Psychological Control, as that was the only parenting scale that met the first condition. To establish this, regression analyses were run separately to predict each decision-making subscale. Age and Gender were entered on Step One and Psychological Control was entered on Step Two. The equation was significant only for predicting Spontaneous Decision-Making ($R^2 = .09$, Adjusted $R^2 = .07$, $F_{(3, 132)} = 4.55$, p

= .005) with standardized beta coefficients reaching significance for Psychological Control ($\beta = .30, t = 3.62, p < .001$).

The third and final condition for mediation is that Variable A (perceived parenting) and Variable B (identity) must be tested together to predict Variable C (decision-making). However, Variable A's relationship with Variable C should no longer be significant, when controlling for Variable B. Using only the variables that passed the first two conditions, a regression analysis was run to predict Spontaneous Decision-Making. Age and Gender were entered on Step One, Psychological Control on Step Two, with Ruminative Exploration and Identity Distress entered on Step Three. The equation was significant ($R^2 = .11, \text{Adjusted } R^2 = .08, F_{(5, 130)} = 3.24, p = .009$) with standardized beta coefficients reaching significance for Psychological Control ($\beta = .25, t = 2.88, p = .005$). The identity variables were no longer significant predictors. To prove mediation, Psychological Control should have been no longer significant while the identity variables remained significant, thus mediation was not proved.

Interestingly, although the equation for predicting Avoidant Decision-Making was not significant in the second condition ($R^2 = .05, \text{Adjusted } R^2 = .03, F_{(3, 132)} = 2.39, p = .071$) with standardized beta coefficients reaching significance for Psychological Control ($\beta = .18, t = 2.11, p = .037$). Because it was close to reaching significance, the third condition was tested for exploratory purposes. The equation was significant for predicting Avoidant Decision-Making ($R^2 = .21, \text{Adjusted } R^2 = .14, F_{(5, 130)} = 5.41, p < .001$) with standardized beta coefficients reaching significance for both Ruminative Exploration ($\beta = .21, t = 2.25, p < .026$) and Identity Distress ($\beta = .23, t = 2.51, p < .013$). Psychological Control was no longer significant which meets the third

condition. Mediation would have been established if Condition Two had been met, but although it was close, it was not significant ($p = .07$).

DISCUSSION

The purpose of this study was to take a closer look at the relationship between parenting and how it affects decision-making through identity status in college students. When examining parenting and identity, it was found that parental Psychological Control was associated with Ruminative Identity Exploration and Identity Distress, while Autonomy Support was associated with Exploration in Breadth, as well as inversely associated with Identity Distress. Identity Distress was significantly associated with all four parenting styles, directly with Behavioral and Psychological Control, and inversely with Responsiveness and Autonomy Support. Previous studies (Koepke & Denissen, 2012; Rageliene & Justickis, 2016) have looked at parenting and identity, but through the lens of separation/individualization rather than using the Marcia (1966) model of identity formation to examine parenting and identity. Beyers and Goossens (2008), on the other hand, did use the Marcia model of identity formation in their study of parenting style and identity. Although they found links between supportive parenting and identity exploration and identity commitment, they collapsed the four parenting styles identified by Soenens and colleagues (2004) into one variable (supportive parenting). This study maintained the four parenting variables (responsiveness, behavioral control, psychological control, and autonomy support) to examine their separate effects, yielding a more detailed examination of the factors that may enhance or deter healthy identity formation. In doing so, it was uncovered that identity distress was related to all four styles. Behavioral and Psychological Control were associated with greater Identity Distress, while the healthier styles of Responsiveness and Autonomy Support were related to less Identity Distress. Thus, this study builds and expands upon the previous work of Beyers and Goossens. The idea that Autonomy Support would correlate with

Exploration in Breadth appears to be consistent with Erikson's theory that Trust, Autonomy, Initiative, and Industry provide the child with the skills and confidence necessary to separate from parent and go forth to find their own path in the world. Parental reliance on Psychological Control, to the contrary, may interfere with the fostering of healthy exploration, and instead leaving the child in a state of unproductive rumination over how to resolve identity issues. The two (presumably) healthier parenting styles of Autonomy Support and Responsiveness appear to perform as a protective factor for identity distress, while the two (presumably) less healthy parenting styles of Behavioral Control and Psychological Control appear to promote identity distress. It seems plausible that these healthier styles instill a sense of self-confidence in a young person's ability to make important life decisions that form the basis of identity formation, while overly controlling styles of parenting decrease a child's confidence in their own ability to make such choices. However, this is all speculative and based on correlational data, so future studies might want to explore and test these ideas more thoroughly.

Pellerone and colleagues (2015) explored links between identity and decision-making, and they found that the identity status of diffusion (low identity exploration and low identity commitment) predicted the Avoidant Decision-Making style. In the current study we found similar, but more detailed results, suggesting that the Avoidant Decision-Making style is associated with unhealthy (ruminative) identity exploration and identity distress, and a lack of identity commitment. In addition, all the other decision-making styles were found to be associated with various aspects of identity. The results were generally in line with what one might expect. Rational and Intuitive, the healthier decision-making styles, were associated with healthy aspects of identity formation, while Dependent and Avoidant, the less healthy decision-making styles, were associated with less healthy identity formation processes. The Spontaneous

Decision-Making style was only associated with Identity Distress. Thus, this study adds to what was previously known about decision-making and identity. It is probably not surprising to anyone that the four positive identity processes were associated with Rational Decision-Making, although they had no relationship, and thus did not serve as a buffer, to the negative ones of Ruminative Exploration and Identity Distress. The links between Avoidant Decision-Making on the one hand, and Rumination with lack of Identity Commitments on the other, also seems logical. Presumably, intervention aimed at decreasing rumination and encouraging more healthy and productive styles of identity exploration might help to combat avoidance, which would foster greater commitment. This is an idea that seems worthy of further research. Interestingly, the Intuitive style of Decision-Making was associated with all 3 types of exploration, both healthy and unhealthy. This is a somewhat contradictory finding, which suggests the need for replication and further investigation. Finally, Identity Distress was associated with all 3 of the less healthy decision-making styles, suggesting that Rational and Intuitive styles might be encouraged, and Dependent, Avoidant, and Spontaneous discouraged in prevention and intervention programs aimed at fostering healthy identity formation and decreasing Identity Distress. However, given the correlational nature of the data, it is also quite possible that Identity Distress encourages the less healthy types of decision-making, rather than causality going in the opposite direction. Future research aimed at manipulating one to see its effect on the other might help yield some answers to the question of directionality.

In reference to parenting style and decision-making, while previous studies have looked at the effects of parenting on making decisions such as whether to go to college (Kimmes & Heckman, 2017), this is the first study to investigate the links between parenting style and offspring decision-making style. In this study, parental Responsiveness was associated with

greater Intuitive Decision-Making, parental Autonomy Support was associated with less Avoidant Decision-Making, and parental Psychological Control was associated with both greater Avoidant Decision-Making and greater Spontaneous Decision-Making. Somewhat surprising was the lack of findings for parental Behavioral Control with any of the Decision-Making styles and the lack of findings for Rational and Dependent Decision-Making with any of the parental styles. The associations that were found seem consistent with theoretical expectation. One might expect that Autonomy Support and Responsive parenting with less reliance on behavioral and psychological control might foster Rational and Intuitive Decision-Making styles while inhibiting Dependent, Avoidant, and Spontaneous styles via instilling self-confidence in their children's ability to make their own decisions. All of the significant findings were consistent with this idea, but not all the associations were statistically significant. Perhaps additional studies with larger samples might pick up some of these theoretical links that were neither affirmed nor disconfirmed in this study.

In regard to the theoretical hypothesis that identity variables might mediate the relationship between perceived parenting styles and decision-making styles, none of the identity variables passed the statistical test of mediation. The relationship that came closest was that of Ruminative Exploration mediating the relationship between parental Psychological Control and the Avoidant Decision-Making style, which suggests that Psychological control might promote rumination and self-doubt, which in turn, could contribute to the avoidance of making decisions for fear of making a wrong or bad decision. Future studies might want to replicate this study with a larger sample to see if more and stronger evidence for this relationship could be found.

Limitations of the Study and Future Research

As with all research and studies, the limitations of this study should not go unnoticed. The survey was administered in an online platform to 136 participants for course credit. Ten percent of a larger sample was eliminated for taking the survey in under 5 minutes which did not seem feasible given its length. Being an online survey with no validity scales, the accuracy of the data set cannot be fully verified. Future studies might want to replicate this study in a variety of formats (in person survey, interview format, not for credit) and add validity scales to improve accuracy of responses. In addition, the limitations of self-report could be minimized by supplementing these with collateral reports (parents, teachers, friends) that could give a fuller and perhaps more accurate assessment of the study variables. It would also be helpful to have a larger and more diverse pool of participants. The order of the survey is another issue that could be re-considered. It is possible that the order in which the surveys were presented may have swayed the participants to answer in a particular manner. Multiple order of presentation and counterbalancing the order could control for such effects. Finally, it should be kept in mind that all analyses were correlational in nature so no causal explanations should be assumed. To determine the direction of influence between variables, longitudinal studies would be extremely helpful and informative.

Despite these limitations, this study has added to our knowledge base on the associations between parenting, identity, and decision-making. Further study is clearly needed to flesh out these preliminary findings. The result of such studies could help in developing prevention and intervention programs aimed at enhancing positive youth development.

Appendix A: Descriptive Statistics

Table 1: Descriptive Statistics

		Minimum	Maximum	Mean	Standard Deviation
Identity Variables	Exploration in Breadth	1.00	5.00	3.77	.81
	Exploration in depth	1.00	5.00	3.63	.64
	Ruminative Exploration	1.00	5.00	3.18	.92
	Commitment Making	1.00	5.00	3.67	.89
	Identification with commitment	1.00	5.00	3.73	.76
	Identity Distress	1.00	4.57	2.28	.79
Parenting Variables	Responsiveness	1.00	4.93	3.83	.76
	Behavioral Control	1.21	4.79	2.93	.68
	Psychological Control	1.00	4.93	2.58	.72
	Autonomy Support	1.00	4.64	3.56	5.36
Decision-Making Variables	Rational	2.25	5.00	3.93	.56
	Intuitive	2.00	5.00	3.64	.55
	Dependent	1.40	5.00	3.66	.65
	Avoidant	1.00	5.00	2.99	.95
	Spontaneous	1.25	4.50	3.06	.66

Appendix B: Correlational Testing

Table 2: Correlation between Perceived Parenting and Identity

Identity Variables ↓	Parenting Variables →	Responsiveness	Behavioral Control	Psychological Control	Autonomy Support
Exploration in Breadth		.11	-.04	.01	.19*
Exploration in Depth		.08	-.01	-.02	.11
Ruminative Exploration		.00	.13	.22*	-.03
Commitment Making		.03	-.01	-.09	.06
Identification with commitment		.15	-.04	-.12	.12
Identity Distress		-.24**	.19*	.32**	-.19*

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 3: Correlation between Decision-Making and Identity

Identity Variables ↓	Decision Making Variables →	Rational	Intuitive	Dependent	Avoidant	Spontaneous
Exploration in Breadth		.28**	.24**	.07	-.01	.12
Exploration in Depth		.41***	.29**	.32**	-.01	.02
Ruminative Exploration		-.00	.23**	.21*	.33***	.16
Commitment Making		.39***	.11	-.06	-.35***	-.01
Identification with commitment		.37***	.10	-.11	-.42***	-.04
Identity Distress		-.12	.07	.22*	.32***	.21*

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4: Correlation between Parenting and Decision-Making

Parenting Variables ↓	Decision Making Variables →	Rational	Intuitive	Dependent	Avoidant	Spontaneous
Responsiveness		.01	.18*	.07	-.14	-.01
Behavioral Control		.02	-.03	.07	.13	.13
Psychological Control		-.05	-.07	-.00	.17*	.30***
Autonomy Support		.12	.15	-.01	-.21*	-.02

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Appendix C: Survey

Survey

Demographic Information:

SEX: Indicate your gender

- Male
- Female
- Transgender
- Other (explain)

AGE: Type your age

EDUCATION: Indicate year in school

- Freshman
- Sophomore
- Junior
- Senior
- Non-degree Seeking
- Graduate Student
- Other

ETHNICITY: Select the ethnic/racial identifier that best describes you:

- White, non-Hispanic
- Black, non-Hispanic
- Hispanic or Latino/a
- Asian or Pacific Islander
- Native American or Alaskan Native
- Mixed ethnicity or Other (Specify):_____

What is your current GPA?

What was your high school GPA?

LAPPS – The following statements deal with the way in which your parents behave towards you. Indicate to which degree you agree with these statements by encircling one of the numbers.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree, nor Disagree	Agree	Strongly Agree

Respond to following statements in regard to your **Mother** or **Mother-figure/Primary Caretaker**.

1. My mother makes me feel better after talking over my worries with him.
2. My mother often tells me that I must think about my life myself.
3. My mother believes in having a lot of rules and sticking with them.
4. My mother smiles at me very often.
5. My mother won't let me do things with her when I do something she doesn't like.
6. My mother, whenever possible, allows me to choose what to do.
7. My mother insists that I must do exactly as I am told.
8. My mother is able to make me feel better when I am upset.
9. My mother encourages me to be independent from her.
10. My mother is very strict with me.
11. My mother enjoys doing things with me.
12. My mother allows me to decide things for myself.
13. My mother cheers me up when I am sad.
14. My mother insists upon my doing things her way.
15. My mother make my life miserable when I get a poor grade at school.
16. My mother gives me a lot of care and attention.
17. My mother is always trying to change me.
18. My mother helps me to choose my own direction.
19. My mother gives me as much freedom as I want.
20. My mother believes in showing her love for me.
21. My mother is less friendly with me, if I do not see things her way.
22. My mother acts cold and unfriendly if I do something she doesn't like.
23. My mother lets me go any place I please without asking.
24. My mother will avoid looking at me when I have disappointed her.
25. My mother lets me make my own plans for things I want to do.
26. My mother lets me go out any evening I want.
27. If I have hurt her feelings, my mother stops talking to me until I please her again.
28. My mother lets me do anything I like to do.

Respond to following statements in regard to your **Father** or **Father-figure/Secondary Caretaker**.

1 Strongly Disagree	2 Disagree	3 Neither Agree, nor Disagree	4 Agree	5 Strongly Agree
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- 29. My father makes me feel better after talking over my worries with him.
- 30. My father often tells me that I must think about my life myself.
- 31. My father believes in having a lot of rules and sticking with them.
- 32. My father smiles at me very often.
- 33. My father won't let me do things with him when I do something he doesn't like.
- 34. My father, whenever possible, allows me to choose what to do.
- 35. My father insists that I must do exactly as I am told.
- 36. My father is able to make me feel better when I am upset.
- 37. My father encourages me to be independent from him.
- 38. My father is very strict with me.
- 39. My father enjoys doing things with me.
- 40. My father allows me to decide things for myself.
- 41. My father cheers me up when I am sad.
- 42. My father insists upon my doing things his way.
- 43. My father makes my life miserable when I get a poor grade at school.
- 44. My father gives me a lot of care and attention.
- 45. My father is always trying to change me.
- 46. My father helps me to choose my own direction.
- 47. My father gives me as much freedom as I want.
- 48. My father believes in showing his love for me.
- 49. My father is less friendly with me if I do not see things his way.
- 50. My father acts cold and unfriendly if I do something he doesn't like.
- 51. My father lets me go any place I please without asking.
- 52. My father will avoid looking at me when I have disappointed him.
- 53. My father lets me make my own plans for things I want to do.
- 54. My father lets me go out any evening I want.
- 55. If I have hurt his feelings, my father stops talking to me until I please him again.
- 56. My father lets me do anything I like to do.

IDS – Using the following scale, please select to what degree you have recently been upset, distressed, or worried over any of the following issues in your life.

1 None At All	2 Mildly	3 Moderately	4 Severely	5 Very Severely
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- 57. Long term goals? (e.g., finding a good job, being in a romantic relationship, etc.)
- 58. Career choice? (e.g., deciding on a trade or profession, etc.)

- 59. Friendships? (e.g., experiencing a loss of friends, change in friends, etc.)
- 60. Sexual orientation and behavior? (e.g., feeling confused about sexual preferences, intensity of sexual needs, etc.)
- 61. Religion? (e.g., stopped believing, changed your belief in God/religion, etc.)
- 62. Values or beliefs? (e.g., feeling confused about what is right or wrong, etc.)
- 63. Group loyalties? (e.g., belonging to a club, school group, gang, etc.)
- 64. Please rate your overall level of discomfort (how bad they made you feel) about all the above issues as a whole.
- 65. Please rate how much uncertainty over these issues as a whole has interfered with your life (for example, stopped you from doing things you wanted to do, or being happy)
- 66. How long (if at all) have you felt upset, distressed, or worried over these issues as a whole? (Use rating scale below)

Never or less than a month	1 to 3 months	3 to 6 months	6 to 12 months	More than 12 months
1	2	3	4	5

DIDS - The following is a list of statements that many people use to describe themselves. Using the following scale, please rate the degree to which you agree or disagree with these statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree, nor Disagree	Agree	Strongly Agree

- 67. I have decided on the direction I am going to follow in my life.
- 68. I have plans for what I am going to do in the future.
- 69. I know which direction I am going to follow in my life.
- 70. I have an image about what I am going to do in the future.
- 71. I have made a choice on what I am going to do with my life.
- 72. I think actively about different directions I might take in my life.
- 73. I think about different things I might do in the future.
- 74. I am considering a number of different lifestyles that might suit me.
- 75. I think about different goals that I might pursue.
- 76. I am thinking about different lifestyles that might be good for me.
- 77. I am doubtful about what I really want to achieve in life.
- 78. I worry about what I want to do with my future.
- 79. I keep looking for the direction I want to take in my life.
- 80. I keep wondering which direction my life has to take.
- 81. It is hard for me to stop thinking about the direction I want to follow in my life.
- 82. My plans for the future match my true interests and values.
- 83. My future plans give me self-confidence.
- 84. Because of my future plans, I feel certain about myself.
- 85. I sense that the direction I want to take in my life will really suit me.
- 86. I am sure that my plans for the future are the right ones for me.
- 87. I think about the future plans I already made.

- 88. I talk with other people about my plans for the future.
- 89. I think about whether the aims I already have for life really suit me.
- 90. I try to find out what other people think about the specific direction I decided to take in my life.
- 91. I think about whether my future plans match what I really want.

GDMS – Please indicate the degree to which you agree or disagree with the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree, nor Disagree	Agree	Strongly Agree

- 92. I avoid making important decisions until the pressure is on.
- 93. I generally make snap decisions.
- 94. When making decisions, I rely upon my instincts.
- 95. I double-check my information sources to be sure I have the right facts before making decisions.
- 96. I often need the assistance of other people when making important decisions.
- 97. I postpone decision making whenever possible.
- 98. I often make decisions on the spur of the moment.
- 99. When I make decisions, I tend to rely on my intuition.
- 100. I make decisions in a logical and systematic way.
- 101. I rarely make important decisions without consulting other people.
- 102. I often procrastinate when it comes to making important decisions.
- 103. I make quick decisions.
- 104. I generally make decisions that feel right to me.
- 105. My decision making requires careful thought.
- 106. If I have the support of others, it is easier for me to make important decisions.
- 107. I generally make important decisions at the last minute.
- 108. I often make impulsive decisions.
- 109. When I make a decision, it is more important for me to feel the decision is right than to have a rational reason for it.
- 110. When making a decision, I consider various options in terms of a specific goal.
- 111. I like to have someone to steer me in the right direction when I am faced with important decisions.
- 112. I put off making many decisions because thinking about them makes me uneasy.
- 113. When making decisions, I do what seems natural at the moment.
- 114. When I make a decision, I trust my inner feelings and reactions.
- 115. I use the advice of other people in making my important decisions.

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