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A Longitudinal Study of Adolescent Identity Development and Harmful Alcohol Use within a Racially/Ethnically Diverse Sample

Cover Page Footnote

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A LONGITUDINAL STUDY OF ADOLESCENT IDENTITY DEVELOPMENT AND HARMFUL ALCOHOL USE WITHIN A RACIALLY/ETHNICALLY DIVERSE SAMPLE

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INTRODUCTION

Among American youth, alcohol is the most widely used and abused drug, with an estimated 623,000 adolescents (ages 12–17) being diagnosed with alcohol use disorder in the past year, yet only 5.2 percent of them receiving treatment (National Association on Alcohol Abuse and Alcoholism; NIAAA, 2015). It is therefore not surprising that alcohol consumption has become a leading public health concern as serious drinking problems normally seen in middle age (e.g., alcoholism) are beginning to appear during adolescence and young adulthood and interfere with normal adolescent brain development (NIAAA, 2006). To better predict drinking behaviors, both theory and research have demonstrated the importance of the development of cognitive variables (Merrill, Wardell, & Read, 2009), beginning most critically with adolescent identity development when individuals begin to "find their own way" (Schwartz, Zamboanga, Wang, & Olthuis, 2009_a).

The development of a coherent sense of self and identity is a key developmental task of adolescence (Côté & Levine, 2014; Erikson, 1968), since the identities formed therein serve not only as a social compass, but provide purpose, direction, and stability (Lee, Corte, & Stein, 2018). Identity development is achieved through the onset of formal operational thought and the subsequent construction of goals, values, and beliefs that cohesively answer the question, "Who am I?" (Oshri et al., 2014). Individuals who struggle with the establishment of a personal identity may increase their propensity for substance use (Meca et al., 2015; Arnett, 2004; Ritchie et al., 2013). Alcohol-outcome expectancies have been shown to act as crucial factors in the drinking initiation process (Copeland et al., 2014). Moreover, one alcohol expectancy-tension reduction—coincides with the hypothesis that identity development may prove to be a stressful developmental process, and thereby, may be a motivator for adolescents to drink when a belief exists that stress can be reduced through alcohol use (Oshri et al., 2014). As such, the present study sought to establish whether the presence of a confused identity would lead to tension reduction expectancies and valuations and ultimately act as a predictor of harmful alcohol use. In other words, an adolescent with a strong, personal identity are less likely to value alcohol as a means to reduce stress, and thereby reduce their risk for harmful alcohol use. On the other hand, individuals who struggle with identity development and the stress associated with this phase of life are more likely to value alcohol as a stress reliever, and in turn, become more prone to harmful alcohol use. Resultantly, this study aims to assess a longitudinal model of three adolescent cohorts through measures evaluating identity development, alcohol expectancies, and alcohol use.

IDENTITY DEVELOPMENT

Since Erikson's (1950) seminal book, *Childhood and Society*, identity has been the subject of theoretical and empirical analysis. Erikson (1968) conceptualized identity development as a dynamic play between identity synthesis and identity confusion. Erikson proposed that *identity synthesis* represents a reworking of childhood and contemporary identifications into a larger, self-determined set of self-identified ideals, whereas *identity*

confusion represents an inability to develop a workable set of ideals on which to base an adult identity (Schwartz, Mason, Pantin, & Szapocznik, 2009_b).

Because identity synthesis embodies a clear and comprehensible illustration that is emulated to both oneself and to the external world, when attained, it can predict one's decisions and actions in the context of any particular situation; conversely, the more disjointed and incomplete one's picture, the more likely ego identity confusion will manifest (Schwartz, 2001). Indeed, normative, successive identity developments are key in the promotion of effective adaptation to new environments and challenges (Roisman, Masten, Coatsworth, & Tellegen, 2004). Thus, the presence of non-normative identity confusion may disrupt successful identity development, potentially increasing the probability of cognitive vulnerability to health risk behaviors (Cicchetti & Valentino, 2006). Recent studies have found that synthesis is positively related with well-being, while confusion is positively related to alcohol use (e.g., Grigsby et al., 2018; Oshri et al., 2014). It is also important to note that the task of identity development in emerging adulthood consists both of creating a positive overall sense of self and of balancing identity synthesis with identity confusion.

THE TENSION-REDUCTION HYPOTHESIS

Typically, while studies conclude that identity is related to psychopathology, it is not completely understood why identity development is related to problematic alcohol use (Klimstra & Denissen, 2017); some scholars have proposed the tension reduction hypothesis as a potential explanation for this link (Oshri et al., 2014). Essentially, the tension reduction hypothesis posits that youth will use alcohol as a way to ameliorate negative effects of stress associated with identity development (Oshri et al., 2014). Consistently, studies have shown that the transition to

3

adulthood has become more psychologically tasking in recent years, causing many young people to experience considerable distress (Berman, Montgomery, Kurtines, 2004). However, in some individuals, the distress becomes so overwhelming that the normal course of development is disrupted, causing dysfunction instead (Berman et al., 2014). When stress is chronic over time during adolescence, it can disrupt the successful negotiation of normative developmental tasks, potentially increasing the probability of cognitive vulnerability to risky behaviors (Oshri et al., 2014).

Confirming this hypothesis, Oshri and colleagues (2014) found that in response to the stress associated with identity confusion and personal identity integration efforts, recent Hispanic immigrants were more likely to endorse tension reduction drinking expectancies [i.e., beliefs concerning the expected outcomes of drinking (Ham et al., 2017)], which in turn, mediated the effects of identity on alcohol use. Oshri and colleagues looked at alcohol expectancies as preliminary evidence in support of this tension-reduction hypothesis (2014). However, according to expectancy value theory, the effects of value and tension reduction expectancy are interrelated, and the isolated effects of either variable do not fully predict alcohol consumption (Nicolai, Moshagen, & Demmel, 2017).

CURRENT STUDY

Extending previous studies, and informed by identity theory, the purpose of the current study is to address the gaps in literature and examine whether tension-reduction expectancies and valuations mediate the relationship between identity formation and problematic drinking. Specifically, the present study, which utilizes a longitudinal design for establishing mediation, drew upon the 2011 report by NIAAA to prevent alcohol abuse and alcoholism and examined the mediational effects between identity synthesis and confusion and later alcohol risk. The current study postulates the following hypotheses (*see Figure 1*):

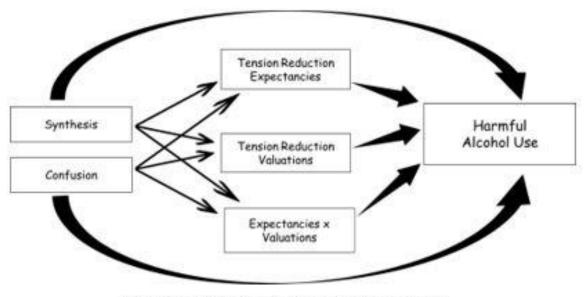


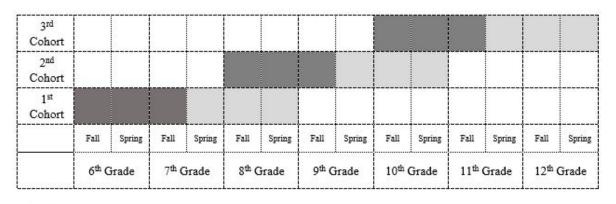
Figure 1. Hypothesized Conceptual Model

- Identity synthesis at Time 1 (T1) will negatively predict tension reduction expectancies and tension reduction valuations at Time 2 (T2).
- 2. Identity confusion at T1 will positively predict tension reduction expectancies and tension reduction valuations at T2.
- 3. Identity synthesis at T1 will negatively predict harmful alcohol use at Time 3 (T3).
- 4. Identity confusion at T1 will positively predict harmful alcohol use at T3.
- 5. Tension reduction expectancies and tension reduction valuations at T2 will mediate the effects between identity synthesis and identity confusion at T1 and harmful alcohol use at T3.

Method

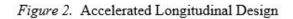
PARTICIPANTS

Our sample consisted of data collected as part of an accelerated longitudinal school-based study of underage alcohol use (Meca et al., 2017). The participants were 756 adolescents (53% girls; M_{age} =13.7 years; SD=1.6 years, 41.4% Hispanic, 39.6% non-Hispanic Black, 8.7% non-Hispanic White, 5.2% Asian, and 5.2% Other) from Miami-Dade County, FL (56%) and Prince George's County, MD (44%). The initial baseline sample consisted of 756 adolescents (53% girls; Mage = 13.7 years; SD = 1.6 years, range = 11 to 18 years) from Miami-Dade County, FL (56%) and Prince George's County, MD (44%). In terms of race/ethnicity, 41.4% of participants were Hispanic, 39.6% were non-Hispanic Black, 8.7% were non-Hispanic White, 5.2% were Asian, and 5.2% were from other racial/ethnic groups. The project utilized data collected as part of the "Multisite School-Based Evaluation of a Brief Screener for Underage Drinking" (R01



Time Points Used

Time Points Collected but not utilized in present study



AA021888-02S2), an accelerated longitudinal school-based study of underage alcohol use (Meca et al., 2017). For this project, three cohorts (6th graders, 8th graders, and 10th graders) were recruited in the Miami-Dade County, FL and Prince George's County, MD. As part of the longitudinal design, the sixth-grade cohort was followed through the first semester of ninth grade, the eighth-grade cohort was followed through the first semester of eleventh grade, and the tenth-grade cohort was followed through the first semester of eleventh grade, and the study collected six-time points on each cohort (in the fall and spring of each year), the present study only utilized the first three time points of each cohort (*see Figure 2*).

PROCEDURE

Randomly selected participants were recruited from public middle and high schools in Prince George's County, Maryland (n = 6 schools) and Miami-Dade, Florida (n = 8 schools). Parental consent was obtained for all students under the age of 18 years. The survey, offered in both English and Spanish, was conducted via tablet computers in either group or individual settings during school hours. The survey consisted of measures of individual and peer alcohol use, alcohol expectancies and valuations, and identity development. As compensation for participation at each time point, students received a \$25 gift card.

MEASURES

DEMOGRAPHICS. Respondents were asked to self-report their gender, age, race, grade in school, and overall academic grades (*see Appendix C*).

PERSONAL IDENTITY. The Erikson Psychosocial Stage Inventory (EPSI; Rosenthal, Gurney, & Moore, 1981) contains subscales assessing several of Erikson's (1950, 1968) stages including identity. Adolescent identity coherence and confusion was measured using the 12-item identity subscale from the EPSI (Rosenthal et al., 1981), which measures the extent to which participants have a clear sense of who they are and what they believe in. Six items are worded in a "positive" direction (toward identity synthesis; e.g., "*I know what kind of person I am*"), and six items are worded in a "negative" direction (toward identity confusion; e.g., "*I feel mixed up*"). The response scale used for the EPSI ranges from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*), and possible scores range from 12 to 60.

ALCOHOL EXPECTANCIES AND VALUATIONS. The Brief Comprehensive Effects of Alcohol Test (B-CEOA; Ham, Stewart, Norton, & Hope, 2005) includes a subset of items assessing expectancies and valuations extracted from the original Comprehensive Effects of Alcohol test (CEOA; Fromme et al., 1993). The 15-item B-CEOA scale measures positive (e.g., "*I would be courageous*") and negative (e.g., "*I would be clumsy*") alcohol expectancies and valuations. Students indicated their level of agreement to each statement using a 4-point scale (1 = disagree to 4 = agree), and their valuations of these outcomes using a 5-point scale (1 = bad to 5 = good).

ALCOHOL USE. The National Institute on Alcohol Abuse and Alcoholism / American Academy of Pediatrics Brief Alcohol Use Screener (NIAAA/AAP Brief Screener; NIAAA, 2011) consists of two items, asking about (a) adolescents' alcohol use and (b) peers' alcohol use during the last year. Peer-Risk is categorized into "*No Peer-Risk*" (no alcohol-using friends) versus "*Heightened Concern*" (one or more alcohol-using friends). Adolescents' reports of their own alcohol use to classify youth into no-risk, low-risk, moderate-risk, and high-risk groups based on alcohol use patterns and age. The NIAAA/AAP is developmentally appropriate for early, middle, and late adolescence and is an empirically derived tool for identifying youth at risk for alcohol-related problems (NIAAA, 2011; Meca et al., 2017).

ANALYTIC PLAN

Descriptive statistics were calculated for demographic variables and measures using IBM SPSS Statistics version 25. Main analyses were conducted in Mplus v8.0 (Muthén & Muthén, 1998-2012) utilizing a Robust Maximum Likelihood Estimator. To be able to draw directional conclusions, our analyses controlled for baseline levels of identity coherence and confusion, age, and gender. To evaluate the non-normality (where absolute values greater than 2.0 represent non-normally distribution), univariate indices of skewness and kurtosis were used. A bootstrap approach was implemented in the instance that non-normality presented itself to be a cause for concern. Leverage indices for each individual were examined to indicate multivariate outliers (indicated by a score four times greater than the mean).

EVALUATING THE SPECIFIED MODEL

Per recommendations by Bollen and Long (1993), model fit was evaluated using a variety of indices. These include the χ^2 test of model fit (which should be statistically non-significant, *p* > .05), the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI); and the standardized root mean square residual (SRMR). According to values suggested by Little (2013), *good* model fit is represented as CFI \geq .95, RMSEA \leq .05, and SRMR \leq .05 while *acceptable* fit is represented as CFI = .90 - .95, and RMSEA = .05 - .08, and

SRMR = .05 - .08. We report, but did not use, the χ^2 value in interpreting results because it tests a null hypothesis of perfect fit, which is rarely plausible in large samples or complex models (Davey & Savla, 2010).

RESULTS

DESCRIPTIVE STATISTICS AND PRELIMINARY RESULTS

Descriptive statistics for the current study are reported in *Table 1*.

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Descriptive Statistics

VARIABLES	Mean (SD)	Skewness	Kurtosis	
TRE_2	0.000 (0.916)	0.786	-0.706	
TRV_2	0.00 (1.879)	0.186	-1.151	
ALCRSK_1	1.395 (0.581)	1.749	1.796	
CONF_1	1.441 (0.651)	0.244	-0.339	
SYN_1	2.835 (0.732)	-1.021	1.309	
TRE_1	0.000 (0.901)	0.878	-0.482	
TRV_1	0.000 (1.773)	0.288	-1.121	

MAIN RESULTS

The specified model provided a good fit to the data: $[\chi^2(2) = 1.114, p=.573; CFI=1.000;$ RMSEA<.001; SRMR = .004]. Standardized path estimates and confidence intervals are reported in *Table 2*. Findings revealed that identity synthesis at Time 1 negatively predicted tension reduction valuations at Time 2 ($\beta = -.161$, p = .027, 95% CI = -.304 to -.019).

Table 2

Outcome Predictor Estimate p-Value 95% C.I. T.R. Expectancies Synthesis -0.038 0.425 -0.131 to 0.055 Confusion 0.063 0.227 -0.039 to 0.166 -0.304 to -0.019 T. R. Valuations Synthesis -0.161 0.027 Confusion 0.034 0.012 to 0.303 0.157. 0.019 to 0.205 Alcohol Risk Level T. R. Expectancies 0.112 0.018 T. R. Valuations 0.000 0.997 -0.062 to 0.062 T. R. Expectancy x Value -0.041 to 0.082 0.020 0.513 -0.130 to 0.008 Synthesis -0.061 0.082 Confusion 0.025 0.506 -0.048 to 0.097

Unstandardized Estimates of the Mediational Path Model

Notes. T.R. = Tension Reduction

*p < .05

Additionally, identity confusion at Time 1 positively predicted tension reduction valuations at Time 2 ($\beta = .157$, p = .034, 95% CI = .012 to .303). Neither identity synthesis nor confusion significantly predicted tension reduction expectancies. Results indicated that tension reduction expectancies at Time 2 positively predicted alcohol risk levels at Time 3 ($\beta = .112$, p = .018, 95% CI = .019 to .205). Finally, although only marginally significant, results did indicate that the effect of identity synthesis at Time 1 on alcohol risk levels at Time 3 ($\beta = ..061$, p = .082, 95% CI = ..130 to .008) was approaching significance. The final model is depicted in *Figure 3*.

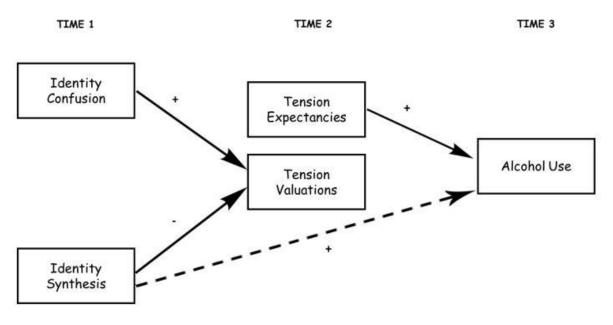


Figure 3. Final Results Model

DISCUSSION

The development of a clear sense of identity is a key developmental task in adolescence which Erikson (1968) conceptualized as a dynamic play between identity synthesis and identity confusion. Recent studies have found that identity synthesis and confusion are associated negatively and positively, respectively, to alcohol use (Grigsby et al., 2018). Furthermore, scholars have argued that identity confusion can lead to the development of cognitive vulnerabilities to risky behavior, such as alcohol misuse (Masten et al., 2008). In this study, we adopted a developmental perspective (Schwartz et al., 2017) to examine the tension reduction hypothesis concerning adolescent drinking in a racially and ethnically diverse sample. Consistent with the tension-reduction hypothesis (Oshri et al., 2014), we hypothesized that identity confusion and synthesis predicted tension reduction expectancies and valuations, in turn, predicting alcohol risk. In other words, we hypothesized that an adolescent who fails to develop a coherent identity is more likely to drink alcohol to reduce stress, leading to a greater expectancy that using alcohol will result in tension reduction; and vice versa, that an adolescent who develops a coherent identity is less likely to drink to reduce stress and also places less of a value on the outcomes (positive or negative) associated with drinking.

This study's findings revealed that identity synthesis at Time 1 negatively predicted tension reduction valuations at Time 2. These findings potentially indicate that individuals with more coherent identities value other, more "adaptive" means to alleviate stress, possibly because they are involved in activities that are related to their self-selected identity commitments (e.g., college aspirations, athletic activities, etc.) (Barber, Eccles, & Stone, 1999). Existing research suggests that holding commitments, possessing a synthesized and internally consistent sense of self, and being invested in one's future creates a protective barrier against engagement in behaviors that may be pleasurable in the short run but may compromise one's future (Schwartz et al., 2013). Additionally, it is consistently documented that extracurricular activities play a significant role in identity synthesis by helping to structure one's peer group, and establish internal consistency among one's roles and commitments, a set of personal goals, a reasonably predictable future, and a sense of personal control over one's life (Ivaniushina & Zapletina, 2015; Schwartz et al., 2013).

Our second finding showed that identity confusion at Time 1 positively predicted tension reduction valuations at Time 2, which seems to align with the current literature. When youth experience overwhelmingly stressful effects caused by the psychologically tasking challenges of identity development (Berman et al., 2014), and are increasingly forced to make decisions with regard to future direction, this presence of confusion can lead to alcohol use as a means of reducing or negating any associated tension (Oshri et al., 2014). Furthermore, in response to the

stress associated with identity confusion and personal identity integration efforts among Hispanic adolescents, identity confusion was predictive of delinquent behavior, cigarette smoking, alcohol use, early sex initiation, and unprotected sex (Schwartz et al., 2009_b).

Surprisingly, and in contrast to findings conducted by Oshri et al. (2014), neither identity synthesis nor confusion predicted tension reduction expectancies. These null findings may be explained through the existing literature on expectancy-value theory which shows that expectancies and valuations are not isolated ideas but are instead interrelated (Nicolai et al., 2017). Moreover, alcohol cognitions and beliefs are thought to develop before direct use of alcohol and are then modified with direct experience with the substance (Copeland et al., 2014). As such, the students surveyed may not have yet had clear delineations between expectancies and valuations. Indeed, as we note in our limitations, about a third of the sample responded "*I don't know*" when asked about their expectations of the effects of alcohol use.

Finally, results indicated that tension reduction expectancies at Time 2 positively predicted alcohol risk levels at Time 3. This finding is in line with current literature demonstrating that children have beliefs about alcohol and primarily endorse negative expectancies; however, alcohol expectancies are believed to change throughout early childhood and adolescence (independent of substance use), and by age 13, most will come to endorse positive expectancies (Copeland et al., 2014). Adolescents who possess greater positive expectancies are more likely to report future intentions to drink and higher levels of consumption than those with lower positive expectancies (Copeland et al., 2014; Jester et al., 2013).

LIMITATIONS & FUTURE RESEARCH

The findings from this study should be interpreted in light of several limitations. Although the first tentative steps in identity development occur during adolescence, the most intensive identity exploration often takes place during emerging adulthood, the transitional period between adolescence and adulthood (Arnett, 2007). Future studies should investigate whether tension reduction expectancies mediate the effects of synthesis and confusion on alcohol use in early adulthood. Moreover, the ages of our participants from the three time points evaluated were relatively young ($M_{age} = 13.7$) and may not have reached peak levels of alcohol use (which generally occurs between ages 18–20, late adolescence and emerging adulthood; Johnston et al., 2011; Schulenberg and Maggs, 2002). While the study uses longitudinal data, we only looked at three of the six-time points available for each cohort. Including data from the entire span of six-time points in our analyses would have allowed us to make more conclusive statements regarding effects of identity synthesis, identity confusion, and tension reduction expectancies on problematic alcohol use. Third, when measuring alcohol expectancies and valuations, this study included "I don't know" as a possible response, which could have skewed median responses that would have otherwise been either positive or negative. Future studies should limit the response selections to a scale inclusive of certain values only. Moreover, as previously noted, the ages of this study's participants typically preclude the onset age of alcohol use disorders. The measures used in this study were directed at detecting harmful or problematic alcohol use. Future studies with this age group should include items that address alcohol use or other substance use in general. Lastly, in 2009_a, Schwartz and colleagues evaluated models of identity development in an attempt to operationalize and measure identity directly from an Eriksonian perspective. In doing so, they sought to clarify whether identity synthesis and identity confusion are indeed opposite ends of the same spectrum, as Erikson (1950, 1968)

15

postulated, or if conversely, synthesis and confusion are corequisites for a normative, healthy identity, wherein the continued identity process relies upon the presence of some confusion. This debate over a one-factor model of identity versus a bi-factor model of identity remains unsettled; however, Schwartz and colleagues did determine that within the bi-factor model, if an individual has a positive sense of self, the presence of both coherence and confusion is adaptive in nature, leaving "room for improvement" and the opportunity to learn more about oneself (2009_a). In light of this implication, it is possible that repeating this study using a bi-factor inventory to assess identity may provide more conclusive results.

CONCLUSION

Despite these limitations, the present study uniquely contributed to identity literature through its longitudinal examination of both alcohol expectancies and valuations and harmful alcohol use among a sample of racially and ethnically diverse adolescents. With American youths continuing to exhibit signs of harmful alcohol use as a means of development-related tension-reduction, it is our hope that future studies investigate this link further, as it may be important in future prevention/intervention efforts, particularly among diverse populations.

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APPENDIX A

Figure 1

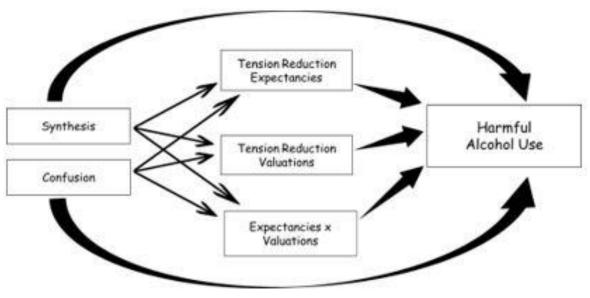


Figure 1. Hypothesized Conceptual Model

Figure 2

	6 th C	irade	7th C	irade	8 th C	Grade	9 th C	irade	10 th (Grade	11 th (Grade	12 th (Grade
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
1 st Cohort														
2 nd Cohort														
3 rd Cohort														

Time Points Used

Time Points Collected but not utilized in present study

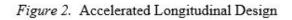


Figure 3

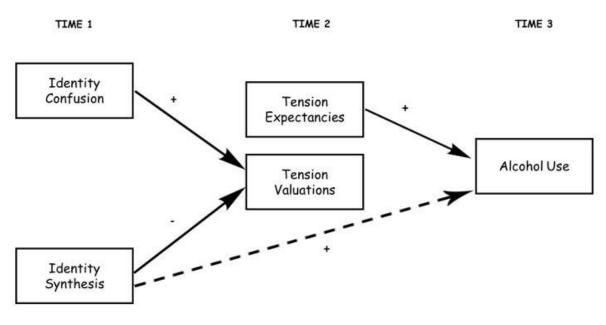


Figure 3. Final Results Model

APPENDIX B

Table 1									
Descriptive Statistics									
VARIABLES	Mean (SD)	Skewness	Kurtosis						
TRE_2	0.000 (0.916)	0.786	-0.706						
TRV_2	0.00 (1.879)	0.186	-1.151						
ALCRSK_1	1.395 (0.581)	1.749	1.796						
CONF_1	1.441 (0.651)	0.244	-0.339						
SYN_1	2.835 (0.732)	-1.021	1.309						
TRE_1	0.000 (0.901)	0.878	-0.482						
TRV_1	0.000 (1.773)	0.288	-1.121						

Table 2

Unstandardized Estimates of the Mediational Path Model

Outcome	Predictor	Estimate	p-Value	95% C.I.
T.R. Expectancies	Synthesis	-0.038	0.425	-0.131 to 0.055
	Confusion	0.063	0.227	-0.039 to 0.166
T. R. Valuations	Synthesis	-0.161	0.027	-0.304 to -0.019
	Confusion	0.157.	0.034	0.012 to 0.303
Alcohol Risk Level	T. R. Expectancies	0.112	0.018	0.019 to 0.205
	T. R. Valuations	0.000	0.997	-0.062 to 0.062
	T. R. Expectancy x Value	0.020	0.513	-0.041 to 0.082
	Synthesis	-0.061	0.082	-0.130 to 0.008
	Confusion	0.025	0.506	-0.048 to 0.097

Notes. T.R. = Tension Reduction

*p < .05

APPENDIX C

DEMOGRAPHICS

The following questions ask about your life and various behaviors you may have experienced. Please remember that the information you give me is completely confidential. It is important that you be as honest as possible when answering these questions.

DEM001	What is your gender?	1	Male
	50	2	Female
DEM002	How old are you?	0	Younger than 10 years old
		1	11 years old
		2	12 years old
		3	13 years old
		4	14 years old
		5	15 years old
		6	16 years old
		7	17 years old
		8	18 years old
DEM003	How would you describe your racial	0	White
	background?	1	Black/African-American
	7. Q	2 3	Native American
		3	Hispanie
		4	Asian/Pacific Islander
		5	Multi-racial
		6	Other
DEM004	What grade are you currently?	0;	6th
		1;	7th
			8th
		2; 3; 4; 5;	9th
		4;	10th
		5;	llth
		6;	12th
		7;	Not Currently in School
DEM005	Overall what grades do you get most of the	1	A's
	time	2	B's
		3	C's
			D's
		5	F's
			Don't want to answer
			Don't know
			I am not attending school

ERIKSON PSYCHOSOCIAL STAGE INVENTORY (EPSI)

		Strongly Disagree	Disagree	In the middle	Agree	Strongly Agree
ERK001	I change my opinion of myself a lot.	·		10		1989.1
ERK002.	I've got a clear idea of what I want to be.			8. 		
ERK003.	I feel mixed up.					
ERK004.	The important things in life are clear to me.	e 8				
ERK005.	I've got it together.			8.5		
ERK006.	I know what kind of person I am.					
ERK007.	I can't decide what I want to do with my life.			0		
ERK008.	I have a strong sense of what it means to be male/female.					
ERK009.	I like myself and am proud of what I stand for.			8.5 .72		
ERK010.	I don't really know who I am.4					
ERK011.	I work to keep up a certain image when I'm with people.			Q		
ERK012.	I don't really feel involved.	i î		10		

Scoring

Coherence - Items 2, 4, 5, 6, 8, & 9

Confusion – Items 1, 3, 7, 10, 11, & 12