Religious Transformations: Lessons from American Adolescents

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ABSTRACT

Youn Ok Lee. Religious Transformations: Lessons from American Adolescents
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This dissertation explores religious change among American adolescents with a focus on multiple aspects of religious identity and social contexts. In the three articles I examine change in adolescents' attitudes about the importance of religious identity, compare change in religious identification with change in other dimensions of religiosity, and assess potential consequences of these dramatic changes in religiosity in terms of youth outcomes (substance use initiation). Throughout the papers I explore how youth change over time as they transition from adolescence into young adulthood to gain a better understanding of the various patterns of religious development.

Analyses using three waves of data from the National Study of Youth and Religion (NSYR) show that adolescents are largely stable when it comes to attitudes about religion and measures of religiosity but that there are patterns among the minority of youth who experience religious change. The results show that a majority of youth in the U.S. have attitudes that are favorable to religious diversity and that over time, change in these attitudes tend to favor this diversity. While religiosity is commonly measured as being one-dimensional, comparing changes in a variety of religiosity measures suggests that there are meaningful differences from one to another. The results also suggest that there are different processes that influence these changes. When assessing the associations between these types of religious change and substance use initiation, the

results further suggest that there are meaningful differences in changes from one measure of religiosity to another that are associated with youth outcomes.

Together these findings suggest that the religious lives of youth are best characterized by stability but among the minority who experience change, there are different processes involved across different types of religious change and that peer influence is associated with all of them. Untangling the variety of religious experiences and development patterns adolescents undergo as they age into adulthood could provide a more accurate and nuanced understanding of religiosity, particularly in its effects on youth outcomes.

DEDICATION

To my mother, Lee Ok Yun.

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Chapter 1: Introduction

By: Youn Ok Lee

This dissertation explores religious change among American adolescents with a focus on multiple aspects of religious identity and social contexts. In the three articles I examine change over time in adolescents' attitudes about the importance of religious identity, compare change in religious identification/affiliation with change in other dimensions of religiosity, and assess potential consequences of these dramatic changes in religiosity in terms of youth outcomes (substance use initiation). Although research has shown that most youth experience relative stability of their religiosity in adolescence, little is known about the minority of youth who do experience rather extensive religious changes (Smith and Snell 2009; Pearce and Denton 2010). Throughout the papers I explore forms of relatively dramatic religious change as youth transition from adolescence into young adulthood to gain a better understanding of the various patterns of religious development. Here I briefly discuss some of the conceptual background relevant to the papers that follow and highlight areas of improvement that will be addressed in them.

Religious Pluralism

The first of the three papers addresses religious pluralism understood as "the normative evaluation of this diversity and with the social arrangements put in place to

maintain these normative judgments" (Wuthnow 2004: p. 162). Pluralism has come to connote an appreciation of all points of view, a religious tolerance grounded in an engagement with diversity, and in extension a pluralistic society is one in which social arrangements favor the expression of this diversity (Eck 1997; Wuthnow 2004) in a social environment where religious identities have converged and no longer represent meaningful boundaries dividing non-atheistic religious groups from one another (Edgell, et al 2006). Past studies have begun to use large-scale representative survey data to address questions regarding how prevalent pluralistic attitudes are what factors are associated with them (Trinitapoli 2007; Smith B. 2007; Billet, et al. 2003). These studies have found that pluralistic attitudes are associated with exposure to diversity, religious tradition, and religious institutional involvement. A key limitation in research on these attitudes is in the ability to adequately measure pluralism and while work has been done to address measurement issues there is still room for improvement (Smith B. 2007).

While there has been much discussion by scholars regarding pluralism and pluralistic attitudes in light of changing demographics and increased religious diversity in the American population (Eck 1997; Wuthnow 2004) and research on related topics suggests that such attitudes about religious diversity are widely important for understanding American culture (Edgell, et al. 2006; Eck 2001; Wolfe 1999, 2000) there is surprisingly little empirical research that tells us basic things about who in America has pluralistic views and what factors are associated with such views. Most of the research that is relevant to these discussions focuses on other phenomena (e.g. such as religious switching, diversity, doubt, disaffiliation, individualism, etc.) that, while related, are theoretically distinct from what is usually meant by pluralism (Trinitapoli 2007). The

recent work that has begun to map and explore pluralism in contemporary American life has focused on individual attitudes that relate to pluralism without assessing the relationships between these attitudes (Trinitapoli 2007) or used measurements that attempt to capture pluralism's multidimensionality but are limited by data that is specific to Christianity (Smith B. 2007).

In addition, a key feature in the ongoing scholarly discussion about pluralism is change. Scholars discuss the importance of pluralism in American culture in light of a changing and increasingly diverse religious landscape (Wuthnow 2004; Edgell, et al. 2006; Eck 2001). These discussions suggest that religious pluralism is increasing among Americans and that, while there are particular exceptions, this pluralism is increasingly being reflected in American culture. After reviewing the literature I am not aware of any currently published empirical research that examines change in the prevalence of pluralism in the contemporary American context that corresponds to this discussion in the literature. Evaluations of religious attitudes such as those towards atheists (Edgell, et al. 2006) and attitudes that reflect religious exclusivism (Trinitapoli 2007) are relevant but indirect in understanding religious pluralism.

The body of research that empirically assesses religious pluralism is still in its early stages and there is need for further exploration and improvement. The first paper that follows is a modest step toward a better empirical understanding of pluralism and diversity. In it, I address weaknesses in measurements highlighted by past studies as well as attend to assessing the relationship between diversity and pluralism over time. The results provide descriptive information about religious pluralism among American adolescents and to what degree they are becoming more or less pluralistic considering a

variety of factors suggested by past research. This connects to larger discussion regarding how this aspect of religiosity forms during adolescence, a time in which cognitive development and the development of autonomy results in youth "tweaking" their faith in terms of their beliefs and worldviews (Pearce & Denton 2010).

Religious Identity

The remaining two papers include change in religious identity as an important factor in understanding dramatic religious change. While these papers are framed in very different ways from the first one they are still somewhat related. The discussion regarding pluralism involves a de-emphasis on religious boundaries that are conceptualized on a cultural level. These cultural boundaries have implications for individual-level characteristics and behaviors if they, as argued by Edgell, et al. 2006, form a basis for distinguishing who is "like me" and "not like me" (2006: p. 214). While Edgell and colleagues (2006) do not frame their argument in social psychological terms it can be viewed from a social psychological perspective. The process of assessing what characteristics defines others as being like one self is inherently social psychological and relates most closely with theories concerning identity. Characteristics that are understood as defining distinct socially meaningful groups or categories form the basis for many definitions of identity (Ashmore, Deaux, and McLaughlin-Volpe 2004). From this perspective, changes in these defining characteristics would presumably influence the social order perceived by individuals as they subjectively self categorize in relation to it, thus taking on identities.

Identities are fundamentally social psychological so it is necessary to define religious identity in social psychological terms. While I do not directly assess social psychological theories of identity in these analyses, it is useful to understand how religious identity is defined in terms of collective identity to start the conceptual background for the papers that follow.

The term *identity* has both a long history and a wide variety of usages (Ashmore, Deaux, and McLaughlin-Volpe 2004; Brubaker and Cooper 2000; Gleason 1983). This along with the tendency for definitions of identity to vary from one discipline to the next has created confusion in discussions about identity in the scholarly literature (Ashmore, Deaux, and McLaughlin-Volpe 2004). In an effort to resolve some of this confusion and to provide clarity to research efforts in studying identity Ashmore, Deaux, and McLaughlin-Volpe (2004) bring together past research and theoretical approaches under the term collective identity. Ashmore and colleagues distinguish *collective identity* from other related terms in the social science literature (i.e. *social identity, personal identity, relational identity,* and *social roles*) by defining collective identity as and identity that:

> "is shared with a group of others who have (or are believed to have) some characteristic(s) in common . . . [that] may be based on ascribed characteristics . . . or achieved states . . . [and] does not require direct contact or interchange with all others who share category membership; rather, the positioning is psychological in nature . . . [defined] in terms of a *subjective* claim or acceptance by the person whose identity is at stake" (2004: p. 81).

They explain that their definition is consistent with the term *social identity* but does not necessarily assume all of the processes that characterize social identity theory, such as in-group versus out-group comparisons. From this definition they attend to remaining ambiguity by recognizing collective identity as a multidimensional concept, "connot[ing]

not only a belief in categorical membership . . . but also a set of cognitive beliefs associated with that category . . . 'value and emotional significance' . . . [and] behavioral implications" (2004: p. 82).

I use the definition of collective identity to understand religious identity. While there are areas of overlap between the dimensions of religious identity conceptualized as a case of collective identity and dimensions religiosity conceptualized in the religious change literature, the measures used in the analyses that follow understand such factors as representing dimensions of religiosity. The measures fit more closely with the way dimensions of religiosity are conceptualized since they tend to refer to one's religious involvements rather than to one's identity or self, although there is admittedly a great deal of similarity and overlap in these concepts making distinctions somewhat unclear.

In the second and third papers I examine dramatic change in religious identity in comparison with dramatic change in other dimensions of religiosity that characterize forms of religious change (also understood as conversion) that have been emphasized in the literature. Like collective identity, religiosity is largely theorized as multidimensional (Snow and Machalek 1984; Regnerus and Uecker 2006; Regnerus 2003). The study of religiosity can be understood as the attempt to understand the relations of these various dimensions to one another as well as with outcomes. In the second and third papers I address these two approaches understanding religious identity as a dimension of religiosity that can undergo dramatic change. In the second paper, I evaluate the relationships between dramatic changes in dimensions of religiosity that characterize forms of religious change by examining the degree to which they co-occur. In addition, I assess if there are similar patterns of association between predictors and dramatic

religious change across these types. In the third paper, I assess these types of dramatic religious change to determine if there are varying associations across the change dimensions and youth outcomes. Both of these papers address areas in the scholarly literature that need further exploration and improvement.

In the second paper religious identity is framed as one dimension of religiosity through which change can be evaluated (Edgell and Meier 2005). There is a particular need for subjective measures when evaluating religious change since most studies rely solely on congregation membership or affiliation measures (Snow and Machalek 1984; Regnerus and Uecker 2006). Further, while there have been many studies focused on dramatic religious change by examining religious conversion there is no consensus on how to measure change of its various forms (Snow and Machalek 1984; Regnerus and Uecker 2006) and little is known about how these types of changes relate to one another.

There may be different processes involved across different types of dramatic religious change, if so it may be beneficial to distinguish dramatic religious changes based on type and direction. While research has shown that adolescents are generally stable in terms of religion during this time, there do appear to be distinct religious trajectories as people age from youth to young adulthood (Smith and Snell 2009; Pearce and Denton 2010; Edgell and Meier 2005). Past research has found evidence suggesting that processes leading to religious decline or disaffiliation are particularly distinct from processes leading to increases (Regnerus and Uecker 2006). These findings highlight the need for research to consider that multiple processes could be at work among the minority of youth who experience dramatic religious change.

In the third paper that follows, I address some of the weaknesses of past work in the area of religious change among youth. The primary issue that I address is the need for multidimensional measures of religious change that better reflect the multidimensionality of religiosity that is assumed by scholars. Based on dimensions of religiosity that characterize forms of religious change that have been emphasized in the literature I compare associations across four types of dramatic religious change. I also address the need for research to assess the degree to which such changes co-occur and represent distinct dimensions of change in religiosity. Finally, by comparing associations across both change types (institutional involvement, religious identity, salience, and religious experience) and direction (increase and decrease) I consider the possibility that there could be multiple processes and relationships involved in dramatic religious change.

In the final paper, I continue to address many of these weaknesses in assessing dramatic religious change as I examine associations between the change types and youth outcomes in the form of substance use initiation. As with research in religious change, past research on the relationship between religion and substance use also suffers from narrowly considering religiosity by using only one or two religious measures despite the fact that religion is multidimensional (Regnerus 2003). There is also frequent reliance on cross-sectional data or small local samples that highlights the need for examining the relationship between multiple dimensions of religiosity and adolescent behaviors with large-scale representative data over time (Edgell and Meier 2005; Regnerus 2003).

When considering the influence of religiosity on adolescents there is a dearth of research examining how religious changes affect youth outcomes so little is known about the how such changes relate to substance use (Edgell and Meier 2005). If religiosity has

an influence on youth substance use independent of other social influences then it would be expected that dramatic changes in it would correspond to initiation into substance use behavior. In this paper, I consider the associations of dramatic increases and decreases in four types of religious change suggested by the literature on religious conversion and transformation with three types of substance use initiation (cigarette, marijuana, and alcohol). This approach addresses both the need for more multidimensional measures of religiosity in assessing the relationship between religion and youth outcomes as well as the need for longitudinal research aimed at understanding the consequences of dramatic religious changes in adolescence. Focusing on dramatic religious change over time rather than measures of religiosity at one time point allows for the assessment of associations between religious processes and substance use behavior that address this multidimensionality.

Taken together these areas of literature related to religious change suggest that among adolescents who experience religious changes the processes involved are more numerous and complex than current considerations take into account. The following papers represent efforts to address some of this unexplored complexity in understanding religious change. I focus on change in attitudes related to religious pluralisms as well as dramatic changes in dimensions of religiosity that have been used to characterize religious conversion.

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Chapter 2
Religious Diversity and Pluralism: A Latent State-Change Analysis of Religious Boundaries of American Adolescents

By: Youn Ok Lee

> *"Diversity and pluralism raise fundamental questions about what is true and not true, about how to go about deciding what is true or not true, and about living with the uncertainty that is always present whenever competing truth claims and lifestyles vie for attention." -Robert Wuthnow (2004: 168)*

How does one know how to distinguish between what is true and not true? What sources can one trust as a source of information about truth? What are the consequences of such decisions? In the United States people are confronting these questions in social contexts that are increasingly diverse in terms of religious tradition (Wuthnow 2004; Eck 1997, 2001). There is still much to be learned about the effects exposure to people who are of different religions or no religion might have on religion in the United States, especially given the observed inability of scholars of religion to generate anything like a general law that could establish a relationship between religious diversity and religious participation (Chaves and Gorski 2001).

Increasing religious diversity in American society may have an impact on religion in a variety of ways. Stemming from research related to secularization theory, much of the attention paid to diversity has addressed its effects on what has been termed religious vitality, the importance and influence of religion in a society. Scholars have found that the relationship between religious diversity and religious vitality is not uniformly positive or negative, and suggested that researchers turn instead to specifying the conditions under

which diversity and pluralism might affect religion (Chaves and Gorski 2001). In this article, I depart from the focus on religious vitality that has been studied in past research and look into the effects diversity has on religious pluralism. To do this, I will distinguish between religious diversity (religious heterogeneity) and religious pluralism (normative evaluation of diversity), examining whether exposure to religious diversity results in a view of religion that is accommodating to religious pluralism or if it results in resistance to such a view.

Some researchers have also argued that increasing religious diversity coincides with increasing levels of religious tolerance and the dissolution of boundaries that separate religious traditions (Edgell, et al. 2006; Eck 2001; Wolfe 1999, 2000; Herberg 1960). Exposure to diversity can call into question symbolic boundaries that distinguish who is like oneself and who is not, thus widening the spectrum of religious acceptance (Edgell, et al 2006). It may be that increased exposure to religious diversity results in changes to beliefs that de-emphasize the exclusive claim to truth held by any one religious tradition while simultaneously compromising the boundaries that distinguish members of one tradition from another. I examine the relationship between diversity and pluralism that could relax or dissolve such boundaries between traditions and individuals. Pluralism can undermine both religious traditions' exclusive claims on truth while also dissolving the power of religious affiliation as a meaningful symbolic boundary between members across traditions.

This paper improves upon past research in the study of religious pluralism by using a latent variable to measure religious pluralism over time. Rather than relying on a single belief item to measure religious pluralism I am able to use several items to

measure it using latent class analysis. Another unique aspect of this research is that I am able to measure religious diversity at three levels: the religious composition of (1) county of residence, (2) peer group and (3) parents. These measures address more specifically how religious diversity might influence pluralistic beliefs by enabling me to distinguish between religious diversity found in the broader social environment and among one's close social ties. In other words, does religious diversity in the social environment influence pluralism when compared with religious diversity in one's peer group or among one's parents?

The question under consideration is: Do those exposed to religious diversity tend to become religiously pluralistic or does this make them comparatively resistant pluralism? In addressing this question, I consider whether exposure to religious diversity changes the quality of religious beliefs, as Peter Berger contends (Berger 1999), or if exposure to religious diversity results in efforts to bolster religious promotion, as R. Stephen Warner has suggested (Warner 1993). In keeping with the conclusion that efforts to understand the possible effects of diversity should be concerned with the specific conditions under which they are observed rather than with any general law (Chaves and Gorski 2001).

In the following sections I will theoretically distinguish between the concepts of pluralism and diversity to clarify what I mean by each. Then, I briefly summarize the role of pluralism in what Edgell, et al. (2006) have outlined as the meta-narrative of scholarship on religion in American life. Next, I address my primary research question and discuss competing claims that theorize about the effects diversity has on beliefs that embrace religious pluralism. Finally, I consider the potential independent effects

religious tradition may have in the relationship between diversity and religious pluralism before describing the methods and data used.

BACKGROUND

Distinguishing Between Pluralism and Diversity

In order to discuss diversity and its affect on pluralism it must first be established what is meant by each, especially since the terms have been used interchangeably in the past (Voas, et al. 2002; Chaves and Gorski 2001; Olson 1999; Finke and Stark 1988; Breault 1989). By religious diversity I mean to describe the degree of heterogeneity among people with respect to religious tradition and identity (Wuthnow 2004). This is distinct from the concept of pluralism that comes from political philosophy that refers to pluralism as "the normative evaluation of this diversity and with the social arrangements put in place to maintain these normative judgments" (Wuthnow 2004: 162). Pluralism has come to connote an appreciation of all points of view, a religious tolerance grounded in an engagement with diversity, and in extension a pluralistic society is one in which social arrangements favor the expression of this diversity (Eck 1997; Wuthnow 2004). This distinction is important since exposure to a religiously diverse social environment itself could influence how accepted and widespread pluralistic attitudes are.

Religious Pluralism in Context

Penny Edgell and colleagues have recently reviewed three strands of literature that characterize the meta-narrative of religion's declining significance as an exclusionary boundary in American life and situate the concept of pluralism in the modern American context (Edgell et al. 2006). The first area in this literature focuses on the national religious history of the U.S., noting the long history of high levels of religious involvement and importance. It highlights the deep connections between religion, specifically Christianity, and democracy as famously noted by Alexis de Tocqueville. Continuing with Tocqueville's assertion that religion in America provides what is needed for citizenship, Will Herberg's *Protestant, Catholic, Jew* (1960) and Robert Bellah and colleagues' *Habits of the Heart* (1985) demonstrate the role of religion in defining public life with religion providing "a sense of personal identity and meaning leading to public engagement and effective citizenship" (Edgell 2006: 213; Warner 1993).

They describe the second strand in this meta-narrative as being characterized by the argument that a religious convergence has occurred during the twentieth century where a sense of religious commonality across religious groups has come to serve as the basis for private and public trust. (Edgell, et al. 2006: 213). They also show that this strand is supported by survey research done by Hout and Fischer using data from the General Social Survey demonstrating that Americans generally believe that religion is positive for the country and by research from the Public Agenda Poll concluding that many Americans equate being religious with being a moral human being (Hout and Fischer 2001; Farkas et al. 2001)

The third strand of the highlighted literature suggests that increasing religious diversity has "coincided with an increasing tolerance of religious difference, declines in

religiously based prejudice, and processes of assimilation to erode many of the long-standing divisions among Protestants, Catholics, and Jews" (Edgell et al. 2006: 213). They cite research in this strand by Duane Alwin (1986) supporting the convergence of Catholics and Protestants as well as work by Glock and Stark (1965), and Herberg (1960). Underscoring this assimilation is the now widely accepted concept of a "Judeo-Christian" tradition (Edgell et al 2006; Hartmann, Zhang, and Windschadt 2005). This strand of literature in particular suggests that as religious diversity has increased in American history so too has the tolerance of religious difference suggesting a relationship between religious diversity and the rise of pluralism, at least among some traditions.

In light of the literature then, we would expect that young people in America today, presumably influenced by the culmination of these trends, to be widely accepting of a view in-line with religious pluralism where the distinguishing theology and symbolic boundaries that could potentially divide people of faith are de-emphasized. This expectation has in-fact been evidenced by recent research on youth and religion (Smith and Denton 2005; Wuthnow 2007; Trinitapoli 2007). What social factors influence the adoption and expression of this view is less known. I suggest that exposure to religious diversity is one of these potential factors.

Effects of Diversity on Religious Pluralism: Plausibility Structures or Religious Competition

The literature suggests two competing arguments that offer two distinct theoretical approaches to this question (Chaves and Gorski 2001; Wuthnow 2007). One approach has been advanced by Peter Berger (1969), who suggests that the relationship between religious diversity and vitality is assumed to be negative. His original argument

promoted a view that religious diversity reduces religious vitality through the concept of the plausibility structure, the basis for a religious meaning system. These structures that support religious belief are undermined by competing worldviews. Berger has argued that contact with others with different religious affiliations would weaken plausibility structures, resulting in less religious belief and activity. Alternatively, Berger has also argued for another way exposure to diversity could change religiosity in that it may be that exposure to diversity, rather than eroding religious conviction itself, results in a change in the quality of religious conviction (Berger 1999). Under such conditions, divisive beliefs themselves become less important (Wuthnow 2004). With regard to pluralistic beliefs, this scenario would certainly be in line with the suggestion that increased religious diversity results in the increase of pluralistic beliefs and attitudes, as religious identities have converged around a shared set of core beliefs and practices discussed earlier from Edgell et al. (2006).

The other approach suggested by R. Stephen Warner (1993), in what he has termed a *new paradigm* in the study of religion that emphasizes religious competition rather than plausibility. In this view religious diversity is like a market where diversity will increase the likelihood that people will believe in the tenets of their own faith and their efforts to promote it. Here competition stimulates the "quantity and quality of religious products available to consumers and, consequently, the total amount of religion that is consumed" (Chaves and Gorski 2001:262). If the relationships of religious groups are characterized by competition, groups would need to promote their own distinct religious products to counter increased competition in a open marketplace or at least distinguish the unique products provided to their members so as not to lose consumers.

This approach suggests that increased religious promotion results when religious diversity increases, causing the bolstering of between group distinctions rather than the dissolving of them. In this scenario, religious traditions would become less competitive if their members were to adopt pluralistic views so it would be expected that exposure to increased diversity would result in decreased or continued lower expression of pluralism.

In addition to religious diversity, research suggests that religious tradition may also have an association with on pluralism. By using the term religious tradition, I mean traditions that can be distinguished based on their varying historical development in America as advanced by Steensland et al. (2000). Distinctions between conservative Protestants, mainline Protestants, black Protestants, Catholics, Jews, and Mormons suggest differences in their view of religious pluralism. Some traditions have been noted for views and efforts that promote an ecumenical view of other traditions. Mainline Protestant, Catholic, and Jewish traditions can be generally said to have had an accommodating stance toward religious pluralism and individualism by scholars (Steensland et al. 200; Roof and McKinney 1987; Hoge et. al. 2001; McNamara 1992; Davidman 1991; Goldscheider and Zuckerman 1984). This can be said to be especially true to those within the Jewish tradition who have experienced a movement away from traditional doctrines that emphasize a sense Judaism's exclusivity, such as a belief that the Jews are "the chosen people," and helped to integrate Jews into mainstream America (Davidman 1991; Goldscheider and Zuckerman 1984). In contrast, conservative Protestants and Mormons have been characterized by having sought more separation from the broader culture and are less tolerant of groups that hold competing moral visions than other Americans (Woodberry and Smith 1998; Steensland et al. 2000; Magleby

1992; Quinn 1993). In light of these distinctions I include religious tradition in the analyses to show whether religious traditions have independent influence on pluralism from religious diversity.

DATA

The panel data used in these analyses comes from three waves of the National Survey of Youth and Religion (NSYR). NSYR's longitudinal telephone survey began as a nationally representative telephone survey of 3,290 English and Spanish speaking teenagers between the ages of 13 and 17. A random-digit dial (RDD) telephone method was employed to generate numbers representative of all household telephones in the 50 United States. The second wave and third waves of the NSYR are re-surveys of the Wave 1 English-speaking teen respondents. All waves of the survey were conducted by telephone using a Computer Assisted Telephone Interviewing (CATI) system. The Wave 2 survey was conducted from June 2005 through November 2005 when the respondents were between the ages of 16 and 21. Wave 3 of the survey was fielded from September 2007 through April 2008 when the respondents were between 18 and 24 years old. Every effort was made to contact and survey *all* original NSYR respondents, whether they completed the Wave 2 survey or not, including those out of the country and in the military. Of the original respondents, 2,604 participated in the second wave of the survey resulting in an overall retention rate of 78.6 percent. The Wave 2 cooperation rate was 89.9 percent. The refusal rate for Wave 2, calculated as the number of eligible respondents (N = 3,312) that refused to take part in the survey, was 4.0 percent. In Wave

3 2,532 original youth respondents participated in the survey for an overall Wave 1 to Wave 3 retention rate of 77.1 percent. The percentage of respondents who completed all three waves of the survey was 68.4 percent.

Other data used in these analyses come from the 2000 Glenmary Survey of American religious adherents and congregations[1] (Jones et al. 2002). This survey estimates the number of adherents and number of congregations in a county for 149 denominations in the United States.

MEASURES

Religious Pluralism

Conceptually, religious pluralism represents a normative judgment of diversity and a preference for social arrangements that support it (Wuthnow 2004, Eck 1997). This sort of outlook is abstract and not directly measurable, especially since individuals do not typically understand pluralism as an abstract concept in the same way scholars do. While it is difficult to directly ask respondents whether they agree with pluralism it is easier to assess if individuals align themselves with its accompanying array of beliefs and preferences. These characteristics make it particularly appropriate to use latent variable methods to measure religious pluralism.

Three variables measured pluralistic beliefs at three time points to create a latent variable for religious pluralism. These measures reflect both the extent to which a

[1] County-level data is from the Religious Congregations and Membership in the United States 2000 study conducted by the Glenmary Research Center. Details on this dataset can be found at www.glenmary.org

respondent views a single religion as true and diminished boundaries between religions. These beliefs reflect views on religion that de-emphasize exclusivism and relax boundaries between religions to accommodate religious pluralism. I used these three indicator variables from each of the three waves of data to measure pluralism in the latent state-change analysis. The First variable used was from a survey item that asked respondents if they agreed that it was okay to practice religions besides one's own. I refer to this measure as religious particularity. The second variable was one that asked if it was okay for one to pick and choose religious beliefs without having to accept the teaching of their religion as a whole. I refer to this measure as religious entirety. For the third variable used for creating the latent measure of pluralism I used an item that asked respondents to choose the statement that best aligned with their own view among: "Only one religion is true", "Many religions may be true" and "There is very little truth in any religion". Responses of "Many religions may be true" and "There is very little truth in any religion" were collapsed in the model since it is customary to use dichotomous variables when using LCA (Silverstein & Bengtson, 1997). I refer to this last measure as religious exclusivity. The three survey items used to create these variables were asked in all three waves of the NSYR survey.

Religious Diversity

I include four different measures of religious diversity.

The first measure is of the religious diversity found in each respondent's county of residence. Data from the Glenmary Survey of American congregations were categorized by religious tradition, according to the RELTRAD scheme outlined by

Steensland el al. (2000). The reported proportions of adherents for each religious tradition were totaled per county. These proportions were then used to create a religious diversity index. The equation for calculating the religious pluralism in each county was one minus the Herfindahl index, $1-\sum p_i^2$, where p_i equals the proportion of the adherents in a county for each Reltrad category, as described in Voas, Olson and Crockett (2002). "This index ranges from 0, when there is a single religious group, to a little less than 1, when there are many denominations of equal size" (Voas et al. 2002). An index score was calculated for each respondent based on county of residence at the time of survey during Wave 1.

I also include measures of religious diversity among the people with whom young people have close personal ties, their friends and parents. In addition to measuring more impersonal exposure to religious diversity, as with the index described above, these measures capture the religious difference between the respondent and each of the respondent's five closest non-parental relationships. While this does not capture all of the religious diversity potentially encountered by the respondents, it does capture religious difference among the respondent's social ties.

For the second measure of religious diversity I used non-parental friends at wave 1. The NSYR asked respondents to list the 5 closest friends who were not their parents and then answered a series of questions about these five people. If respondents were unable to list 5 they were asked to list as many as they could. Using items that ask whether the five friends has similar religious beliefs as the respondent or not[2], I created a

[2] Cases where responses to friend's religious alignment were "don't know" were treated as missing so as not to affect similarity or difference in the final value.

percentage of the number of people nominated who did not have similar religious beliefs out of the total number of people nominated at Wave 1.

The third measure of diversity is of the change in the percentage of the respondents' five closest non-parental friends that did not have similar religious beliefs as the respondent from Wave 1 to Wave 2. In these data there is no way of determining if the same individuals were considered among the five closest in both waves, but I was able to include change in percentage of the 5 closest friends. The values of this variable range from -100 to 100, with -100 indicating a change of reporting that all of the nominated friends were non-similar religiously at Wave 1 to reporting that all of the nominated friends were similar religiously at Wave 2. Conversely, a value of 100 indicates a change from reporting that all of the nominated friends were similar religiously at Wave 1 to reporting that all were different religiously at Wave 2. A value of 0 indicates no change between waves.

The fourth measure of religious diversity measures if there is a religious "mismatch" between the respondent's two parents. This indicates religious diversity among a set of personal relationships that are particularly influential when it comes to shaping religiosity (Smith and Denton 2005). The NSYR asked one parent of each respondent about his or her religious alignment with his or her spouse/partner. Using this along with items asked of single parent respondents I created a set of six dummy variables for parental religious diversity based on the following categories: (a) parents hold the same religion, (b) parents hold different religions, (c) one parent is religious, one is not, (d) neither parent is religious, (e) religious single parent and (f) non-religious single parent.

Religious Tradition

Teen religious tradition was created in the NSYR dataset as the variable RELTRAD. This measure of religious tradition categorized teens into major religious types (similar to the RELTRAD method in Steensland el al. 2000). This variable was created based on the type of religious congregation that the teen reported they attend. In cases where ambiguity remained, additional variables were used to determine a teen's religious tradition category. Each teen was coded as either: Conservative Protestant, Mainline Protestant, Catholic, Black Protestant, Jewish, Mormon, Not Religious, Other Religion, or Indeterminate Religion.

A variable measuring religious service attendance at Wave 1 is included along with the religious tradition measures to control for religious engagement. This ordinal variable has seven categories that range from "never" to "more than once a week." Descriptive statistics on variables used in my analyses are provided in Table 1.

Demographic Controls

Demographic control variables include measures of family structure, parental education, parental income, teen sex, teen race and region of residence. Parental income is measured by a set of dummy variables for household income consisting of four variables ranging from "Less than $10,000 – $30,000" to "More than $90,000" and a fifth variable for missing, "don't know" and "refuse". Dummy variables for race included "White Teen," "Black Teen," "Asian Teen," "Latino Teen," "Other," and a sixth variable for missing, "don't know" and "refuse". Teen age (measured as a continuous variable

based on birth date) and sex (female=1, male=0) are also included in every model. All demographic control variables were measured at Wave 1 with the exception of sex and age. These measures were taken from the Wave 3, as recommended by NSYR investigators. (NSYR W3 Codebook)

All of the variables used in these analyses are displayed on Table 2.1.

METHODS

This article introduces an approach that models state-changes between pluralism classes over time using a set of categorical indicators of religious pluralism. Pluralism is conceptualized as a latent class variable because the measures in these data do not support a continuous measure for religious pluralism. I use a latent state-change model as an alternative to approaches that analyze indicators separately or using an index. These other options are less desirable since they would ignore both the correlation between indicators and the multidimensional nature of religious pluralism. The set of beliefs used here are theoretically assumed to be associated based on theories of religious pluralism (Wuthnow 2004, Eck 1997). Similar measurements of religious pluralism have been used in past research with varying success (B. Smith 2007; Billet, et al. 2003). I improve on these efforts by using indicator variables that more closely match theories of pluralism and that are not limited to beliefs about Christianity. My approach is a modified version of the latent state-change model used in previous research on youth behavior (Reboussin,

et. al,1998; Collins and Wugalter, 1992; Graham, Collins, Wugalter, Chung, and Hansen, 1991).

In this model latent classes are created to measure religious pluralism and logistic regression is used to evaluate predictors of class membership and change. While each belief item on its own is an imperfect measure of pluralism, together the questions describe variation in a profile of pluralistic beliefs. There are many approaches for using information from multiple indicators but they have drawbacks in comparison with the latent state-change model. One approach is to consider each item separately in a series of regression analyses. This type of analysis does not take into account all available information, such as the potential correlation among various beliefs. Another approach is combining items into summative indices used to score individuals according to the number of pluralistic beliefs reported. This approach also fails to use all available information and such indices have a one-dimensional structure that is in conflict with the theoretical multidimensionality of pluralism emphasized in the literature through the range of beliefs with which religious pluralism is expressed (B. Smith 2007; Wuthnow 2004; Eck 1997). In addition, the manner in which items are combined and scored in order to create such an index is often necessarily ad hoc. By using a latent state-change model the multidimensional structure of the data is maintained and the beliefs are allowed to relate differently to underlying pluralism classes. This approach also better accounts for the measurement error inherent in self-reported attitudinal questions like the ones used here.

The general equation for the indicator responses as a function of the latent class as:

$$P(y_{i11t},\ldots,y_{ijkt},\ldots,y_{iJKt} \mid \eta_{it} = m) = \prod_{j=1}^{J}\prod_{k=1}^{K_j} p_{mjkt}{}^{y_{ijkt}}$$

In this equation p_{mjtk} is the probability that a person from class m will report answer k for question j at time t. y_{ijkt} is the response data. This variable is equal to 1 if person i responded to question j with answer k at time t and is 0 otherwise. The model assumes that the responses to questions provided by a respondent, i, at time t is are independent conditional on the value of the pluralism variable η for individual i at time t. In other words, we assume that the pluralism variable η captures the underlying reason we see correlations in the answers to the questions about pluralism from the survey. This assumption allows us to straightforwardly estimate the values of all the p parameters through maximum likelihood techniques.

This equation can be simplified given the specific variables used here since there are 3 questions, and only 2 answers per question and is time-invariant to this:

$$P(y_{i1t}, y_{i2t}, y_{i3t} \mid \eta_{it} = m) = \prod_{j=1}^{3} p_{mj}{}^{y_{ijt}} (1 - p_{mj})^{1-y_{ijt}}$$

The t index on p_{mj} can be removed and each question reduces to only 2 options: p and *not p*. p_{mj} is the probability that a member of class m would answer pluralistically to question j.

This estimation is important because it allows us to calculate the probability that an individual who exhibits a given response pattern is a member of a specific class without being able to directly observe that membership. Since I am interested in the probability that a person is classed as a pluralist or non-pluralist the equation needs to be

transformed. The probability that a person is in *m* class conditional on *y* answer pattern is expressed as:

$$P(\eta_{it} = m \mid y_{i11t}, \ldots, y_{ijkt}, \ldots, y_{iJKt}) = \frac{\pi_{mt} \prod_{j=1}^{J} \prod_{k=1}^{K_j} p_{mjkt}^{\;y_{ijkt}}}{\sum_{c=1}^{C} \pi_{ct} \prod_{j=1}^{J} \prod_{k=1}^{K_j} p_{cjkt}^{\;y_{ijkt}}}$$

Here the numerator is the probability that the answer pattern will be observed given class *m* times the probability that a person is in class *m*. The denominator is the sum of this same calculation for each of the classes. Where *C* is the number of classes.

If we have estimates of what pluralism class an individual belongs to at each point in time we are also able to model the state-change process of how individuals maintain or change their membership in these classes across the waves. In this model, I use logistic regression to analyze potential predictors of religious pluralism and calculate predicted probabilities from the regression results to evaluate change in pluralism over time. The research question is:

> *Do those exposed to religious diversity tend to become religiously pluralistic or does this make them comparatively resistant to pluralism?*

The full model is illustrated in Figure 1.1.

Using *C* for outcomes that are the *C* classes from the previous statement, the multinomial regression equation for the model is below:

$$\tau_{ilm} = \frac{\exp[\alpha_m + \beta_{lm} + \sum_{r=1}^{R} \gamma_{mr} x_{ir}]}{1 + \sum_{c=1}^{C-1} \exp[\alpha_c + \beta_{lc} + \sum_{r=1}^{R} \gamma_{cr} x_{ir}]}$$

Where the state-change probability for person *i* from state *l* to state *m* is *e* raised to the linear part of a regression divided by the sum of *e* raised to the linear parts of all of the *C* outcomes of the multinomial variable. For the linear part α_m is the intercept for outcome *m* (*C* in the denominator). β_{lm} is a state-change parameter for moving from state *l* to state *m,* Reboussin, et. al. call this the log odds ratio (Reboussin, et. al,1998). The expression of the sum of γx is the variable part of the regression where *r* is the total number of covariates. X_{ir} is the value of variable *r* for person *i* and γ_{Cr} is the log odds ratio for variable *r* and class *C*.

All models were analyzed with Mplus, Version 4.2.

RESULTS

Latent Classes of Pluralism

Using the three indicator variables for each wave of data pluralism was measured across waves in the model with these two classes, non-pluralistic and pluralistic. The two-class model was chosen after comparing the Bayesian information criterion (BIC) values calculated from both a two class and three-class model of pluralism. The BIC for

the two-class model was 20821.074 and the BIC of three-class model was 20834.091 showing a preference for the more parsimonious two-class model. This supported theoretical expectations indicating that a two-class model was appropriate.

In Table 2.2, the probabilities for the responses to each of the three dichotomous indicator variables for each of the two pluralism classes (non-pluralistic and pluralistic) are displayed with their standard errors and t-statistics. These probabilities show that pluralists were highly likely to answer the indicator variables consistent with the theoretical expectations, ranging from 0.794 to 0.971 all with highly significant t-statistics. The strength and significance of these probabilities support the construct validity of the latent pluralism classes.

The pluralist class was between 60.5 and 64.9 percent of the sample at each of the three waves compared with the non-pluralist class being between 35.1 and 39.5 percent. Class membership proved to be relatively stable with about 83 to 94 percent probability of remaining in the same class wave to wave, as seen in Table 2.3. Here we can see that between both waves 1 and 2 and waves 2 and 3 the probability of going from being non-pluralist to pluralist is twice that that becoming a non-pluralist. This shows that while most youth are consistently pluralist or non-pluralist those who change are much more likely to transition into pluralism than out of it.

Evaluating the Relationship between Latent Classes of Pluralism and Religious Diversity

I estimate a logistic regression model to gauge the net effects of religious diversity and covariates on the odds of being in the pluralistic class. Model 1 examines the net effects of religious diversity (i.e. religious diversity in county of residence,

percentage of friends with different religious beliefs, parental religious alignment) on pluralism class, controlling for pluralistic in a previous wave and an array of demographic characteristics. This model is presented in Table 2.4.

The results show associations between types of religious diversity and pluralism. The estimates provide support for the relationship of peer religious diversity and parental religious diversity on pluralism trajectory. The county-level index of religious diversity was not significant in the model. Even when controlling for pluralism

To allow for a more intuitive interpretation of these results in terms of change in pluralism predicted probabilities for having changed from non-pluralistic to pluralistic and pluralistic to non-pluralistic were calculated. Table 2.5 displays a set of predicted probabilities pluralistic trajectory types by each independent variable.

By fixing the value for previous pluralism class (at either the value for pluralistic or the value for non-pluralistic) I am able to calculate the predicted probabilities of becoming pluralistic or non-pluralistic assuming one or the other past pluralism class. Since the regression coefficients were calculated to predict being pluralistic the predicted probabilities for becoming non-pluralistic were calculated by simply subtracting the predicted probabilities of being pluralistic from 1. The probabilities were calculated from the logistic regression estimates from the model in Table 2.4. The probabilities are displayed for both the minimum and maximum values of each independent variable with all others held constant at their means. In cases of dummy variables the probabilities were calculated with the dummy constrained at 1 and all other dummy variables in the set held at 0.

Examining the minimum and maximum values of the predicted probabilities of becoming pluralistic or non-pluralistic allows for an evaluation of the independent variables' influence on having changed from one class to another. The larger the difference between the probabilities for the minimum and maximum values the more predictive power that variable has on becoming pluralistic or non-pluralistic. In cases where the variable belongs to a set of dummy variables the probabilities can be evaluated in relation to each other. Comparing the probabilities in the columns for changing to pluralistic and changing to non-pluralistic also provides information to examine whether there are two distinct processes depending on the direction of change.

The probabilities for the religious diversity index were very similar in both types of change showing that religious diversity at the county level does not appear to influence change in terms of religious pluralism. This is in line with the lack of statistical significance of the coefficient for religious diversity index from the logistic regression model in Table 2.4. The measures of peer religious diversity were statistically significant in the model. The range of the predicted probabilities of changing to pluralistic for these two variables is also relatively wide with minimum values producing low probabilities of becoming pluralistic and maximum values producing much higher probabilities. These same peer variables produced different probabilities for changing to non-pluralistic but they were much lower and the difference less than half of that for predicting change to pluralistic. The minimum values for both the peer religious diversity measures produced higher probabilities for changing to non-pluralistic than the maximum values did, showing that as peer religious diversity increases the probability of changing to non-pluralistic decreases slightly. The last measure of religious diversity was parent religious

alignment, which was represented by a set of dummy variables. The predicted probabilities for these were generally similar with the exceptions of having two parents with the same religion, two parents who are not religious, and having a single non-religious parent. Having two parents with the same religion resulted in a relatively low predicted probability of changing to pluralistic while having two non-religious parents and having a single non-religious parent both resulted in relatively high probabilities. The probabilities for changing to non-pluralistic among these variables were all low with having parents with the same religion resulting in the highest probability. Having two non-religious parents and having a single non-religious parent both resulted in the lowest probability of changing to non-pluralism among parent religious alignment variables.

In terms of the research question these results show that exposure to religious diversity through peers results in more youth becoming pluralistic than becoming non-pluralistic. Religious diversity at the county level does not appear to influence religious pluralism and parent religious diversity is influential in particular types of alignment.

DISCUSSION

One of the findings of this analysis is the degree of stability of being pluralistic or non-pluralistic in light of demographic trends that suggest young people are currently experiencing increasing social diversity (Wuthnow 2004). The majority of the sample, about 81.7 percent, is consistent in terms of pluralism throughout the waves. Of the 18.3 percent of those who changed pluralistically over the time span covered by the data,

about 63.9 percent became pluralists compared with about 35.5 becoming non-pluralist. This supports a view that youth in America are becoming more pluralistic. The majority of youth in the U.S. are consistently pluralistic, about 53 percent. This is comparatively larger than the about 29 percent of who are consistently non-pluralistic. Together, these suggest that the processes by which most young people come to be pluralistic or non-pluralistic most often occur before adolescence. These data show that by the time most youth reach high-school age their attitudes about religious pluralism tend to stay the same through their high-school years and on into late adolescence and early adulthood; a time where young people move out of their parents' homes, begin college or work, and for some, start families of their own. These results suggest being pluralistic or non-pluralistic to be largely stable over time, but further research needs to be done to properly evaluate whether this stability extends into adulthood.

The primary hypothesis tested was concerned with the effect of religious diversity on pluralism. I find that type of diversity matters. Peer and parent religious diversity measures have an association with on the probabilities of becoming pluralistic or non-pluralistic while the religious diversity in county of residence does not. This result lends support for the approach suggested by Peter Berger, that religious diversity would change the quality of religious conviction and cause divisive beliefs to become less important, especially when looking at the relationship between increases in the percentage of friends with a different religion and becoming pluralistic (Berger 1999; Wuthnow 2004). Comparing the effects of friends' and parents' religious diversity on being pluralistic with lack of effect for county-level religious diversity shows that religious diversity at an

indirect level has no effect on being pluralistic. It emphasizes the importance of close ties as potential sources of relevant experiences of religious diversity.

It is also important to note that several religious traditions showed effects independent of the religious diversity measures on becoming pluralistic or non-pluralistic. As expected, conservative Protestant and Mormon had the highest predicted probabilities of becoming non-pluralistic and the lowest probabilities of becoming pluralistic even when controlling for peer and parental religious diversity. The probabilities for other religious traditions of becoming pluralistic or non-pluralistic were generally similar to each other, highlighting the exceptional nature of conservative Protestant and Mormon. Further in-depth research should be done to explore the relationships of these religious traditions and pluralism to understand what about these traditions in particular affects pluralistic orientations.

There are also several limitations to this study. As discussed previously, the time period covered by the available data does not include early childhood (or parent pluralism). Possibly due to this, I did not capture the entry of most individuals into pluralism. In addition, this study focuses on adolescence and the time period of transition to adulthood but does not cover enough time to account for many transformative life experiences where religious diversity may be influential such as marriage, parenthood, and for many cases, entry into the workforce. These data are also unable to address possible cohort effects related to pluralism. Religious diversity can be experienced in a wide variety of forms and from many different sources in addition to those included here. In these data I was able to measure it in several ways but there are certainly many types of religious diversity that I could not address, such as those in media effects.

My findings raise important questions regarding diversity and religious pluralism. Future research should be done to discover what processes explain the influences and origins on becoming pluralistic in early childhood since by young adulthood pluralism is largely stable. Also, it remains to be seen if the stability of religious pluralism found in this study extends into later adulthood and if there are other types of religious diversity that influence pluralism. The findings presented here provide a clearer understanding of the prevalence of pluralism among American youth and the potential processes leading to the adoption or rejection of pluralistic beliefs. These findings show the importance of close social ties as sources for experiences of religious diversity as it relates to pluralism, emphasizing the central role of social influences in what has been largely theorized in broad, cultural-level terms.

Figure 2. 1

Latent State-Change Model of Pluralism

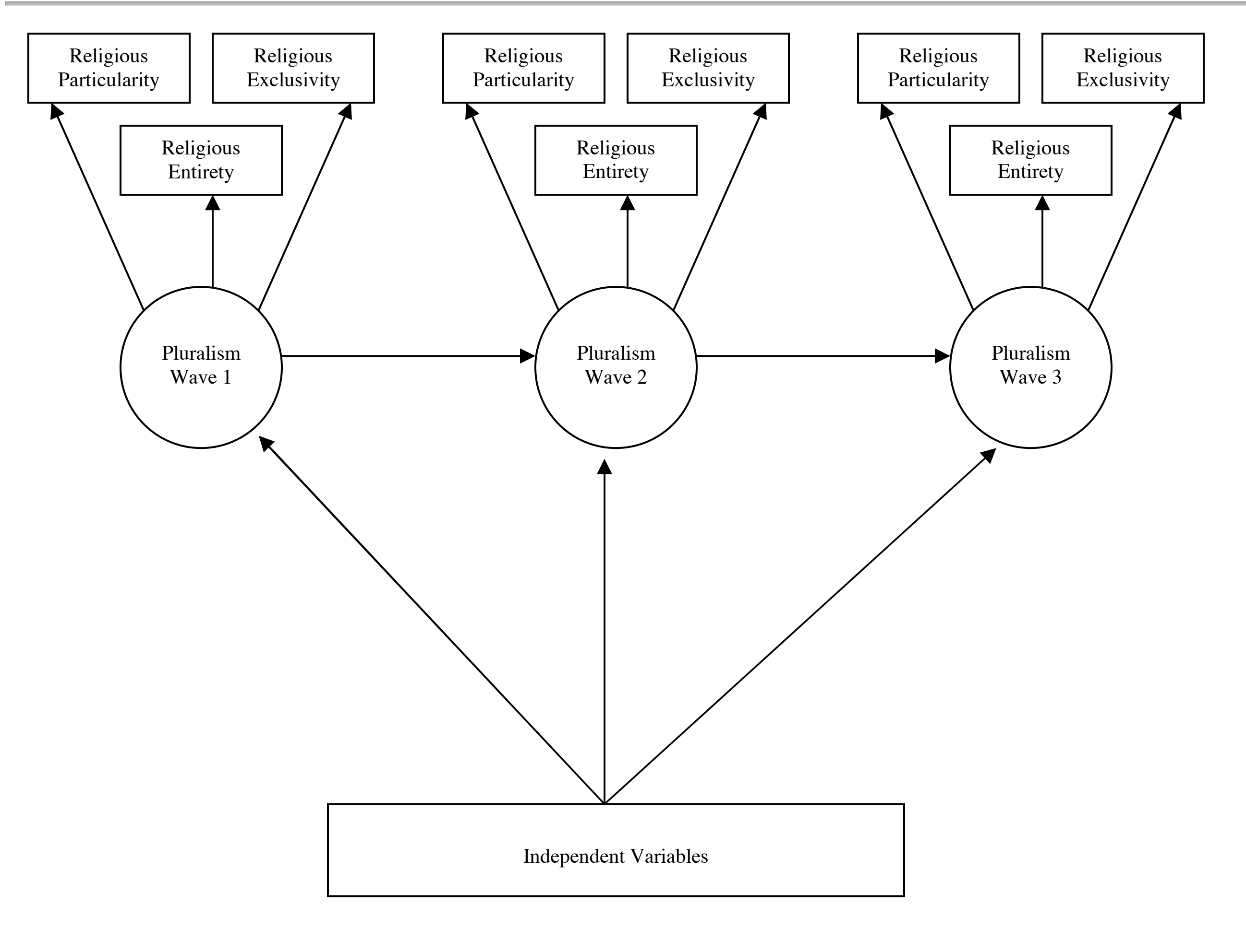

Table 2.1

Description of Variables

Variable	Mean or %	SD	Range
Measures of Religious Diversity			
County-level Religious Diversity Index, W1	.56	.12	.02-.77
% Friends with Different Religion, W1	30.58	34.58	0 – 100
% Change in Friends w/ Different Religion	7.34	42.80	-100 – 100
Parent Religious Alignment, W1			
Parents with Same Religion	.58	.49	0 – 1
Parents with Different Religions	.09	.28	0 – 1
One of Two Parents is Religious	.08	.27	0 – 1
Neither Parent is Religious	.03	.16	0 – 1
Single Religious Parent	.21	.41	0 – 1
Single Non-Religious Parent	.02	.13	0 – 1
Religious Tradition, W1			
Conservative Protestant	.33	.47	0 – 1
Mainline Protestant	.13	.34	0 – 1
Black Protestant	.10	.30	0 – 1
Catholic	.25	.44	0 – 1
Jewish (excludes oversample)	.02	.14	0 – 1
Mormon	.02	.16	0 – 1
Not Religious	.10	.30	0 – 1
Other Religion	.03	.16	0 – 1
Indeterminate	.02	.15	0 – 1
Religious Service Attendance	4.39	2.15	1-7
Demographic Controls			
Parent Income, W1			
Less than $10,000 – $30,000	.16	.37	0 – 1
$30,000 - $60,000	.37	.48	0 – 1
$60,000 - $90,000	.23	.42	0 – 1
More than $90,000	.18	.39	0 – 1
Missing	.56	.23	0-1
Teen Race, W1			
White	.71	.45	0 – 1
Black	.14	.35	0 – 1
Asian	.01	.11	0 – 1
Hispanic	.09	.29	0 – 1
Other	.04	.20	0 – 1
Don’t Know	.004	.06	0 – 1
Gender, W3 (1=female)	.52	.50	0 – 1
Age, W3	20.50	1.43	17.88-23.64

NOTE: N=1763

Table 2.2

Probabilities of Responses Conditional on Latent State

Variable	Pluralist			Non-Pluralist		
	Probability	**SE**	**t-statistic**	**Probability**	**SE**	**t-statistic**
Religious Particularity						
Only Practice One Religion						
Agree	0.206	0.015	14.048	0.879	0.012	75.222
Disagree	0.794	0.015	54.041	0.121	0.012	10.362
Religious Exclusivity						
Many Religions May be True/No Truth in Any Religion						
Many or No Truth	0.971	0.006	173.590	0.231	0.025	9.308
Only One	0.029	0.006	5.096	0.769	0.025	30.950
Religious Entirety						
It is Okay to Pick and Choose Beliefs						
Agree	0.643	0.012	55.562	0.241	0.014	17.716
Disagree	0.357	0.012	30.855	0.759	0.014	55.688

Table 2.3
Probabilities of Changing From Pluralist Latent State to Non-Pluralist Latent State between Timepoints

Wave 1 to Wave 2		
	Pluralist W2	**Non-Pluralist W2**
Pluralist W1	0.923	0.077
Non-Pluralist W1	0.155	0.845

Wave 2 to Wave 3		
	Pluralist W3	**Non-Pluralist W3**
Pluralist W2	0.944	0.056
Non-Pluralist W2	0.169	0.831

Table 2.4

Logistic Regression Coefficients for Pluralist Latent State

Independent Variable	**Model 1**
Pluralism Previous Wave	3.780***
Measures of Religious Diversity	
County-level Religious Diversity Index, W1	-0.31
% Friends with Different Religion, W1	0.02***
% Change in Friends w/ Different Religion	0.01***
Parent Religious Alignment, W1	
Parents with Same Religion	--
Parents with Different Religions	0.61**
One of Two Parents is Religious	0.41*
Neither Parent is Religious	1.09**
Single Religious Parent	0.40**
Single Non-Religious Parent	0.99
Religious Tradition, W1	
Conservative Protestant	-0.92**
Mainline Protestant	-0.06
Black Protestant	0.12
Catholic	0.40
Jewish (excludes oversample)	0.18
Mormon	-1.51***
Not Religious	--
Other Religion	-0.18
Indeterminate	0.17
Religious Service Attendance	-0.31***
Demographic Controls	
Parent Income, W1	
Less than $10,000 – $30,000	-0.15
$30,000 - $60,000	--
$60,000 - $90,000	-0.13
More than $90,000	0.21
Missing	-0.06
Teen Race, W1	
White	--
Black	-0.90***
Asian	0.03
Hispanic	-0.32
Other	0.16
Don't Know	1.57***
Gender, W3 (1=female)	0.37***
Age, W3	-0.02
Constant	3.98***
N	1763
Log Likelihood	-8443.572

* = p < .05, ** = p < .01, *** = p < .001

Table 2.5
Predicted Probabilities of Changing Pluralism State (Ranges or Maximums)

	Change to Pluralistic	**Change to Non-Pluralistic**
Measures of Religious Diversity		
Religious Diversity Index, W1 = 1	(0.28, 0.22)	(0.06, 0.07)
% Friends with Different Religion, W1 = 100	(0.17, 0.48)	(0.10, 0.02)
% Change in Friends w/ Different Religion = 100	(0.11, 0.43)	(0.16, 0.03)
Parent Religious Alignment, W1		
Parents with Same Religion	0.21	0.08
Parents with Different Religions	0.32	0.05
One of Two Parents is Religious	0.28	0.05
Neither Parent is Religious	0.44	0.03
Single Religious Parent	0.28	0.06
Single Non-Religious Parent	0.41	0.03
Religious Tradition, W1		
Conservative Protestant	0.14	0.12
Mainline Protestant	0.28	0.06
Black Protestant	0.31	0.05
Catholic	0.38	0.04
Jewish (excludes oversample)	0.33	0.04
Mormon	0.08	0.10
Not Religious	0.29	0.05
Other Religion	0.25	0.06
Indeterminate	0.33	0.04
Attendance	(0.48, 0.13)	(0.02,0.14)
Demographic Variables		
Parent Income, W1		
<$10k – $30,000	0.22	0.07
$30,000 - $60,000	0.24	0.06
$60,000 - $90,000	0.22	0.07
>$90,000	0.29	0.05
Missing	0.24	0.07
Teen Race, W1		
White	0.27	0.06
Black	0.13	0.13
Asian	0.28	0.06
Hispanic	0.21	0.08
Other	0.30	0.05
Don't Know	0.64	0.01
Age, W3	(0.25, 0.24)	(0.06, 0.07)
Gender, W3	(0.21, 0.28)	(0.08, 0.06)

Note: Predicted probabilities were computed from logistic regression estimates from Model 1 in Table 2.4. Predicted probabilities are shown for the minimum and maximum values of each measure, with all other model variables held constant at their mean values.

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Chapter 3
Dramatic Religious Identity Change: A Comparison of Dimensions of Religious Conversion and Transformation

By: Youn Ok Lee

Religious change has been conceptualized in a variety of ways. In the previous work addressing religious change the primary focus has been on religious conversion conceptualized as involving a specific intense, personal, spiritual experience or as a shift in institutional affiliation (Snow and Machalek 1984; Schwarz 2000; Lofland and Skonovd 1981; Richardson 1985; Rambo 2000). Recently there have been efforts to categorize drastic religious changes more broadly to include types that would not fall under previous definitions of conversion that refer to dramatic religious change as religious transformation (Schwarz 2000; Regnerus and Uecker 2006). What remains unclear in light of the literature is how these types of dramatic changes compare with each other, especially as youth age into young adulthood.

I focus specifically on American adolescents because they represent an important group for the study of dramatic religious change since they experience more religious change than older portions of the population (Regnerus and Uecker 2006; Gillespie 1991; Spilka et al. 2003). This is in-part due to greater freedoms to explore religious choices among younger populations and increased opportunities for change that are available as they make transitions into adulthood (Smith and Sikkink 2003). They may also more strongly reflect religious changes since much of the moral and religious instruction

provided by religious organizations is aimed at youth (Hunter 2000). I use longitudinal data from the National Study of Youth and Religion (NSYR) that covers this crucial time in the life-course with respect to religious change, a time when teens are expected to transition from their reliance on family of socialization to social, economic, and identity independence (Smith and Sikkink 2003).

While research has shown that adolescents are generally stable in terms of religion during this time, there do appear to be distinct religious trajectories as people age from youth to young adulthood (Smith and Snell 2009; Pearce and Denton 2010; Edgell and Meier 2005). This highlights the need for research to consider that multiple processes could be at work among the minority of youth who experience dramatic religious change. Past research has found evidence suggesting that processes leading to religious decline or disaffiliation are particularly distinct from processes leading to increases (Regnerus and Uecker 2006). There may be different processes involved across different types of dramatic religious change and it may be beneficial to distinguish dramatic religious changes based on type and direction.

This study's primary aim is to compare various approaches of conceptualizing and operationalizing dramatic religious change as adolescents age into young adulthood. While there have been many studies focused on dramatic religious change by examining religious conversion there is no consensus on how to measure its various forms (Snow and Machalek 1984; Regnerus and Uecker 2006). Here I review the extant literature to highlight past approaches to measuring dramatic religious change and then using longitudinal data from The National Study of Youth and Religion I evaluate them. Another unique contribution of this study is the addition of measuring subjective

religious identity as a form of religiosity that can undergo dramatic change. The goals of this paper are to comparatively describe distinct types of dramatic religious change among adolescents, evaluate to what degree these types are co-occur, and to assess if there are similar patterns of association between predictors and dramatic religious change across these types. These results will provide a clearer picture of the dramatic religious change experienced by adolescents as they age into young adulthood and assess the value of measuring religious change in ways that better capture the multidimensional nature of religiosity suggested by the literature.

BACKGROUND

Types of Dramatic Religious Change

While researchers have broadly outlined types of radical religious change there is no consensus among scholars of religion on how such changes should best be measured. This task is complicated by the wide variety of religious experiences that have been considered to represent religious conversion, with no one experience of change being prototypical (Schwarz 2000; Richardson 1985). The question of how to operationalize and measure types of radical religious change has largely varied from study to study. Some of this variation is due to the fact that measurements ought to vary from one project to the next due to limitations in data and the scope. This variation has also been influenced by the wide variety of religious experience that is theoretically considered radically transformational. Fortunately, there are also several dimensions of religiosity that have been used repeatedly in past work as the basis of measuring religious change that prove useful going forward.

In the literature on religious conversion and transformation four dimensions of religiosity have been primarily used to operationalize religious change: institutional involvement, experience, discourse, and salience[3] (Snow and Machalek 1984). To these I would like to posit another, religious identity. One constant among conceptualizations of religious conversion is dramatic personal change but beyond that there is a great deal of variation in the degree of change required for inclusion in what is meant by change and what exactly it is that is assumed to undergo change (Snow and Machelek 1984). Here I attempt to compare the ways previous research has often used to measure the "what" that is undergoing change to better understand the multidimensionality of religious change. In the rest of this section I will review research on each of the dimensions and outline my argument for the study of religious identity change in particular.

One of the most direct ways of operationalizing religious change is through institutional involvement and affiliation. Religious service attendance and group membership have been used as a reliable measure of public and collective expression of religion through which change can be evaluated (Regnerus and Uecker 2006). Most often, this measures has been defined as a shift in organizational affiliation where a non-member becomes a member (Snow and Machelek 1984).

In studies focusing on religious conversion in particular many scholars have focused on the conversion experience as a unique type of religious experience defined by various characteristics (Hood 1996; Snow and Machalek 1984; Richardson 1985). Religious change is often viewed in terms of the experiential process of religious change (Edwards and Lowis 2001; Rambo 2000; Baston, et al. 1993). These experiences have been

[3] Snow and Machalek identify three types: membership, demonstration events, and rhetorical patterns. Here I refer to these same types more generally as institutional involvement, experience, and discourse. I add salience in light of research that is more recent than Snow and Machalek's review.

defined by past researchers as experiences interpreted as religiously important by individuals themselves (Hoge and Smith 1982; Yamane 2000). This has also included more narrow definitions, such as demonstration events that defined as public displays of conversion that understood as being imbued with spiritual power which serve to demonstrate to the convert and others that a conversion is taking or has taken place (Snow and Machelek 1984).

Discourse has also been treated as an indicator of religious change. Some scholars have conceptualized religious conversion as a change in one's universe of discourse (Jones 1978; Snow and Machalek 1984; Snow and Machalek 1983). This line research emphasizes a highly subjective form of religious change that embraces more of the social psychological identity changes implied by traditional conceptualizations of conversion (Snow and Machalek 1984). Researchers in this area have focused on changes in how individuals express and talk about meaning as indicators of conversion. This can involve displacement of one "universe of discourse" as understood by Mead to be the common group of meanings that make up a context in relation to which symbols have specific meaning) for another as an indicator (Snow and Machalek 1984). In addition, the change in meanings expressed in an individual's narrative about a religious experience have also been used as measures of dramatic religious change (Yamane 2000). Following this approach in its emphasis on subjective measures, recent work has used religious salience as an indicator of dramatic religious change (Regnerus and Uecker 2006). For religious salience, indicators include measures of the subjective importance of religion in individuals' lives, capturing a private form of religiosity (Regnerus and Uecker 2006).

A part of this study is to evaluate these past conceptualizations and measurements of religious change along with self reported religious identity. Using religious identity is distinct from past research that operationalized religious change in terms of institutional involvement by focusing on self-reported dramatic religious identity changes, including cases that other approaches have largely ignored. As suggested by Snow & Machalek and more recently by Regnerus and Uecker, this project includes subjective measures of religious change rather than relying solely on congregation membership or affiliation measurements (Snow & Machalek, 1984; Regnerus and Uecker 2006). In doing so the findings reflect the lived experience of religious identity and include individuals who hold religious identities but have little institutional affiliation.

Subjective religious identities are crucial for understanding religious life because they represent the symbolic boundaries that meaningfully distinguish one religious tradition from another in the lived experience of individuals and are widely recognized as the basis for religious social organization (Edgell, et al. 2006; Lamont and Molnar 2002; Warner 1993). It is important to evaluate identity change as a specific type of religious change that is distinct from institutional affiliation or an intense spiritual experience since religious identities symbolically represent "cultural bases of solidarity", boundaries within which individuals perceive themselves to share meaningful and moral characteristics (Edgell, et al 2006: 231) that does not necessarily align with institutional membership or intense spiritual experience. The adoption of a radically different religious identity could therefore represent a drastic change in the cultural and moral standards that an individual perceives him or herself to possess or strive for.

Religious identity has largely been assumed to a part of religious conversion but not measured independently from other indicators, such as institutional affiliation. I define it as a case of collective identity, one that:

> "is shared with a group of others who have (or are believed to have) some characteristic(s) in common . . . [that] may be based on ascribed characteristics . . . or achieved states . . . [and] does not require direct contact or interchange with all others who share category membership; rather, the positioning is psychological in nature . . . [defined] in terms of a *subjective* claim or acceptance by the person whose identity is at stake" (Ashmore, Deaux, and McLaughlin-Volpe 2004: p. 81).

In terms of degree, here I use dramatic change to indicate a change in subjective religious identity that is represents more than denominational switching. Therefore, I consider religious identities that are denominations of Protestant Christianity and Catholic to be one identity category of "Christian." Like Steensland, et al. I consider identities such as Mormon and Jehovah's Witness to be significantly distinct from the Christian categories (Steensland 2000).

Considering religious identity as a potential area of religious change is especially important during adolescence and young adulthood when many individuals are transitioning from their families into adulthood and have increased independence to explore inclusion in various social groups and identities.

Correlates of Religious Change

The dominant theories of dramatic religious change in terms of religious conversion have shifted from explanations involving doctrinal appeal that emphasize subjective preferences to a network-based model that emphasizes social structure (Stark and Finke 2000). This more recent approach of religious conversion, advanced by

Lofland and Stark (1965), Stark & Bainbridge (1980), and Stark and Finke (2000), emphasize conformity based on network ties where those who convert are those "whose interpersonal attachments to members overbalance their attachments to nonmembers" (Stark and Finke 2000: 117). This approach to understanding conversion with its focus on social networks has come to dominate the sociological study of religious change (Warner 1993, Smilde 2005). Many researchers have found that networks are powerful influences on individual religious preference (Lofland & Stark 1965; Stark & Bainbridge 1980; Stark and Finke 2000; Stark & Iannaccone 1997; Snow & Phillips 1980; Sherkat & Wilson 1995; Smilde 2005). The importance of social networks' relationship to religious change has been supported very strongly and it is clear that any study of conversion would be incomplete without taking this effect into consideration (Lofland & Stark 1965; Stark & Bainbridge 1980; Stark & Finke 2000; Stark & Iannaccone 1997; Snow & Phillips 1980; Sherkat & Wilson 1995; Smilde 2005). Research on religious change among youth has most frequently incorporated measures emphasizing family context (parent-child relationship, household structure, etc.) capturing influences from social networks (Regnerus and Uecker 2006; Myers 1996). Peer influence has also been shown to as a social factor that shapes youth religiosity (Hood, et al. 2009). These types of measures focus on what Rambo (2000: 22) calls the microcontext, the "more immediate world of a person's family, friends, ethnic group, religious community, and neighborhood" (Rambo 2000; Regnerus and Uecker 2006).

In addition to the conversion literature, scholars have examined religious retention and switching as a type of religious change. These sorts of changes, while related, are not theoretically the same as conversion or religious transformation (Regnerus and

Uecker 2006; Stark and Finke 2000) so I do not directly include them in this analysis but findings in this area of literature are useful in suggesting predictors of drastic religious change. There has been recent work that has focused on retention and switching among American adolescents that is particularly useful for this project. This body of literature has discovered that parents play a key role in transmitting religious belief and affiliation to offspring, life course transitions such as marriage, divorce, or geographic relocation can disrupt affiliation and lead to affiliation changes, and discrepancies between teens and the social characteristics of the religious group in which they belong can lead to switching or apostasy (Smith and Sikkink 2003; Lawton and Bures 2001; Hoge 1988; Sherkat and Wilson 1995). Smith and Sikkink (2003) point out that these types of effects can work in different ways when comparing religious traditions, emphasizing the need for research to take religious tradition into account. Evidence suggests that individuals belonging to religious groups with stricter boundaries are less likely change religiously (Loveland 2003; Smith and Sikkink 2003).

Research has also evaluated how predictive a variety of behaviors and personality types are when it comes to religious conversion and change. In looking at behaviors, one approach suggests that when religious individuals adopt attitudes and behaviors that are at odds with the norms and teachings of their religion this contributes to a loss or decrease in religious commitment (Regnerus and Uecker 2006; Thornton, Axinn, and Hill 1992; Thornton and Camburn 1989; Thornton 1985). Considering sexual behavior is particularly useful for examining the potential relationship between behaviors and religion since premarital and extramarital sex is against the doctrine of many religions although empirical evidence on this varies (Meier 2003; Regnerus and Uecker 2006;

Thornton and Camburn 1989). Social psychologists have also evaluated personality types as predictors of religious conversion and change finding that personality factors influence rather than are influenced by religious change (Paloutzian, Richardson, and Rambo 1999). Further research suggests that individuals who are prone to being anxious, insecure, stressed and who have negative feelings of self are more likely to experience religious transformations (Kirkpatrick 1997; Zinnbauer and Pargament 1998).

Assessing Dramatic Religious Change Types in Adolescence

As stated previously, the goals of this paper are to comparatively describe distinct types of dramatic religious change among adolescents, evaluate to what degree these types are co-occur, and to assess if there are similar patterns of association between predictors and dramatic religious change across these types. Based on the dimensions of dramatic religious change that have been primarily used to operationalize religious change I measure changes in religious institutional involvement, experience, salience, and religious identity. By evaluating dramatic changes in these four dimensions I provide a clearer picture of the dramatic religious change experienced by adolescents as they age into young adulthood. I also compare associations between correlates of religious change and these types to assess the value of measuring religious change in ways that better capture the multidimensional nature of religiosity and potential variation in processes leading to these change types suggested by past research.

DATA

NSYR Survey Data

The panel data used in these analyses comes from two Waves of the National Survey of Youth and Religion (NSYR). The NSYR is a nationally representative telephone survey of U.S. English and Spanish speaking teenagers between the ages of 13 and 17, and their parents. Although not included in these analyses, the NSYR also includes 80 oversampled Jewish households, bringing the total number of completed NSYR cases for Wave 1 to 3,370. Eligible households included at least one teenager between the ages of 13-17 living in the household for at least six months of the year. Diagnostic analyses comparing NSYR Wave 1 data with 2002 U.S. Census data on comparable households and with comparable adolescent surveys---such as Monitoring the Future, the National Household Education Survey, and the National Longitudinal Study of Adolescent Health---confirm that the NSYR provides a nationally representative sample without identifiable sampling and non-response biases of U.S. teenagers ages 13-17 and their parents living in households (for details, see Smith and Denton 2003). A separate weight is used in multivariate analyses that control for census region and household income, which adjusts only for number of teenagers in household and number of household telephone numbers. The second Wave of telephone surveys began in June of 2005 and ran through November 2005. Approximately 78% of the original youth survey respondents (ages 16-20 at the time) were successfully re-surveyed in Wave 2. In Wave 3 2,532 original youth respondents participated in the survey for an overall Wave 1 to Wave 3 retention rate of 77.1 percent. The main source of attrition in the third Wave was again non-located respondents (although not necessarily the same as those not located in Wave 2). The Wave 3 refusal rate, calculated as the number of eligible

respondents (3,282) who refused, was 6 percent. The percentage of respondents who completed all three Waves of the survey was 68.4 percent.

METHODS AND MEASURES

Since the NSYR dataset includes data from multiple time points I was able to compare dramatic change over time in four dimensions of religiosity: institutional involvement, experience, salience, and identity change. I do not include dramatic change in religious discourse in these analyses due the fact that the small number of available cases does not allow for reliable statistical comparison between it and the other types. For each type I used a single created measure as a dependent variable in a multinomial logistic regression model with the same independent variables and demographic controls so associations can be easily compared across the models. All of the variables used in these analyses are displayed on Table 3.1.

Dependent Variables

Dramatic Change in Institutional Involvement

In order to measure dramatic change in institutional involvement I used a measure of change in service attendance from Wave 1 to Wave 3. For this variable I used data from the same survey item asked in both Waves to measure how often the respondent attended religious services at the primary place they worship (if any) not counting funerals, weddings, etc. The seven answer categories varied from "never" to "more than once a week." Cases who say that they do not attend services were categorized as

"never." Change was measured by categorizing change in response values that were three categories higher or lower in Wave 3 than those reported in Wave 1. For example, if a respondent answered "once a week" at Wave 1 and "few times a year" at Wave 3 then that was categorized as a decrease in religious institutional involvement. Changes that were only one or two categories higher or lower were not considered dramatic enough for this analysis and were categorized as "no change." The final measure for dramatic change in religious institutional involvement has three categories for increase, decrease, and no change.

Dramatic Change Through a Transformational Religious Experience

To measure having had a transformational religious experience I used variables from Wave 1, Wave 2, and Wave 3 that measure if the respondent has made a "personal commitment to live their lives for God". The Wave 3 item specifies that the respondent consider the past two years when answering the question so in order to account for the time between Waves 1 and 2 I also used the Wave 2 response to the same question. The final measure for having had a transformational religious experience between Waves 1 and 3 had three answer categories: never committed, committed between Waves 1 and 3, and had committed before Wave 1.

Dramatic Change in Religious Salience

Dramatic change in religious salience was measured by categorizing change in the subjective level of the importance of religion from Wave 1 to Wave 3. This was

measured using data from questions that asked "How important or unimportant is religious faith in shaping how you live your daily life?" with five answer categories that ranged from "extremely important" to "not important at all." Change was measured by categorizing change in response values that were two categories higher or lower than those reported in Wave 1. For example, if a respondent answered "extremely important" at Wave 1 and "somewhat important" at Wave 3 then that was categorized as a decrease in religious salience. Changes that were only one category higher or lower were not considered dramatic enough for this analysis. The final measure for dramatic change in religious salience has three categories for increase, decrease, and no change.

Dramatic Change in Religious Identity

Dramatic religious identity change was measured by creating three category variable created from variables capturing self-reported religious identity. For cases that were too ambiguous or infrequent in the original dataset to be coded into religious traditions I used the verbatim responses that were available to code as many as possible into religious identity categories. The resulting variable included categories measuring whether respondents consistently answered the same way or if they changed their answer compared with that of the first Wave. The three-category dependent variable measured religious identity change. It was created from survey items that asked all respondents to name the religion that they generally consider themselves to be at Waves 1 and 3. The first category was for respondents who reported the same religious identity in both Waves of data. The next category measured whether respondents reported a different religious identity in Wave 3 than they had reported in Wave 1. The third category measured cases

where respondents answered with a religious tradition at Wave 1 and answered “not religious” at Wave 3. The third category measured a drop of religious identity for respondents who reported any religious identity at Wave 1 to reporting “not religious” at Wave 2. Distinguishing between these types of religious change is important since recent research has suggested that there may be different processes behind these the different change outcomes (Regnerus and Uecker 2006). All categories were mutually exclusive and the dependent variable is exhaustive.

Independent Variables

Social Context

Social context was measured using several variables including measurements of both social environment and life events involving the people with whom adolescents have close personal ties, their friends and parents. One of these measures captures the religious difference between the respondent and each of the respondent’s five closest non-parental relationships. The NSYR asked respondents to list the 5 closest friends who were not their parents and then answered a series of questions about these five people. If respondents were unable to list 5 they were asked to list as many as they could. Using items that ask whether the five friends has similar religious beliefs as the respondent or not[4], I created a percentage of the number of people nominated who did not have similar religious beliefs out of the total number of people nominated at Wave 1.

The second measure of social context is of the change in the percentage of the respondents’ five closest non-parental friends that did not have similar religious beliefs as

[4] Cases where responses to friend’s religious alignment were “don’t know” were treated as missing so as not to affect similarity or difference in the final value.

the respondent from Wave 1 to Wave 3. In these data there is no way of determining if the same individuals were considered among the five closest in both Waves, but I was able to include change in percentage of the 5 closest friends. The values of this variable range from -100 to 100, with -100 indicating a change of reporting that all of the nominated friends were non-similar religiously at Wave 1 to reporting that all of the nominated friends were similar religiously at Wave 3. Conversely, a value of 100 indicates a change from reporting that all of the nominated friends were similar religiously at Wave 1 to reporting that all were different religiously at Wave 3. A value of 0 indicates no change between Waves.

The third set of social context variables measure family structure at Wave 1 according to the survey responses of the parent respondent. These measures consist of a set of four dummy variables for family structure: two biological parents, stepparents, single parent, and other parental arrangement. The first variable measures if parent reported that he or she is a biological parent who lives in the household with a spouse whose relationship to the teen respondent is biological parent. The second variable for stepparents includes cases where there is one biological parent who is married to someone in the household whose relationship to the teen is reported as stepparent or adoptive parent. The next variable for single parent household includes cases where the unmarried parent respondent is a biological parent, adoptive parent, or legal guardian and not living with a romantic partner. All other family types were categorized as other (ex. unmarried parent living with romantic partner).

Life Course Transitions

In order to assess life events that could potentially have an impact on religiosity I included two variables: moved away from parents and marriage. The first variable indicates if the respondent lived with at least one biological parent at Wave 1 and did not live with either biological parent at Wave 3. For marriage I created two dichotomous variables for respondents who report having been married at Wave 3. This variable measures having been married between Wave 1 and Wave 3 since at Wave 1 virtually all of the cases in the sample were under the age of 18.

Behavior and Personality

For behavior I include two measures one for if the respondent previously had sex at Wave 1 and if the respondent had sex for the first time between Wave 1 and Wave 3. As personality measures of having negative feelings of self and insecurity I include Wave 1 variables that measure the degree to which the respondent reports feeling "loved and accepted for who you are" and feeling "sad or depressed."

Religious Tradition

The measure used for teen religious tradition was created in the NSYR Wave 1 dataset as the variable RELTRAD. This measure of religious tradition categorized teens into major religious types (similar to the RELTRAD method in Steensland el al. 2000). Each teen was coded as either: Conservative Protestant, Mainline Protestant, Catholic, Black Protestant, Jewish, Mormon, Not Religious, Other Religion, or Indeterminate Religion. Reltrad was created based on the type of religious congregation that the teen reported they attend. If the church type they provided was not sufficient to place the teen

into a reltrad category, additional variables from both the parent and the teen were used to make a determination. This approach captures the religious background and experience of the teen rather than the teen's subjective identity.

Demographic Controls

Demographic control variables include measures of teen sex, teen race, teen age, and region of residence. Dummy variables for race included "White Teen," "Black Teen," "Asian Teen," "Latino Teen," "Other," and a sixth variable for missing, "don't know" and "refuse". A single dummy variable for region was included indicating if a respondent lived in the South Census region or not. Teen age (measured as a continuous variable based on birth date) and sex (female=1, male=0) are also included in every model. All demographic control variables were measured at Wave 1 with the exception of sex and age. These measures were taken from the Wave 3, as recommended by NSYR investigators. (NSYR W3 Codebook)

RESULTS

Frequencies and percentages of the four dependent variables are displayed in Table 3.2. In each case the percentage of respondents who reported no change is the largest, varying from about 65 percent to about 82 percent. Among change categories for institutional involvement, salience, and identity more youth show a dramatic decrease than increase. Of those who had not reported having a transformational religious experience as of Wave 1, a majority did not report having one between waves. These results across dramatic change types are similar to those of previous research that show

youth to be largely stable in terms of their religiosity (Smith and Snell 2009; Smith and Denton 2005).

Among the four types of dramatic religious change there was similarity in the percentage of respondents who show increases in religious experience and religious identity (around 10 percent). In addition, institutional involvement and religious salience both show about a 5 percent increase with institutional involvement showing a marked 29.12 percent decrease. This result shows that increases in institutional involvement and salience among youth are both relatively small there. These results also show that there is less stability in religious institutional involvement than in the other dramatic change types and that this movement is disproportionately downward. This finding is not surprising since youth over this time period are transitioning into adulthood, a time when they are likely to have increased mobility, changing employment, etc. that are all changes that can disrupt social and institutional ties (Teater 2009). These types of disruptions could make continued institutional involvement difficult due to physical relocation away from places where youth worship, put strain on existing social ties, or insert youth into new social environments where they form new social ties interrupting previous patterns of religious institutional involvement. I cannot directly address this directly using these data but in any case, it appears that in this period of life institutional involvement is less stable when compared with the other types of dramatic religious change.

I assess how much overlap there is among the four types of dramatic religious change using Cohen's kappa statistics. This statistic is more commonly used to assess inter-rater reliability but can be used to examine how correlated categorical variables are with each other in a way that is more economical than reporting matched sets of

Pearson's chi-square tests for all four variables. There are not absolute rules for interpretation of Cohen's kappa values but, much like the interpretation of P-values for statistical significance, there are arbitrarily assigned cut-off points suggested by past researchers that are useful. Based on the guidelines suggested by Landis and Koch (1977), a value less than .20 indicates a slight agreement between measures and a value of 0 or less indicates no agreement. Results are reported in Table 3.3. These results show that dramatic change in institutional involvement has no relationship with having had a transformative religious experience and that most of the other change types are only slightly related. Dramatic change in religious salience and religious identity show a relationship that could be described as "fairly related" with a Cohen's kappa value of .226. None of the types show a relationship that would be considered substantial, suggesting that these changes are not due to the same processes and do not tend to co-occur. This further emphasizes that dramatic religious change in adolescence has distinct dimensions and that religious development during this time is not necessarily uniform across these dimensions.

The results in Table 3.3 suggest that dramatic changes across the types do not necessarily co-occur but this does not mean that youth change in opposite directions. Simple cross-tabulations for each possible pairing of the dramatic religious change type variables are not reported here but do show that very few respondents report dramatic increases in one dimension and dramatic decreases in another. The lack of correlation between the measures is due to the tendency for cases to report no change in one dimension while reporting a dramatic change in another. This shows that while dramatic changes do happen together that there are also many cases where change happens in one

dimension and not in others, resulting in a lack of general correlation between change types.

In order to compare the relationships between variables suggested by the extant literature on religious conversion and transformation across change types I used multinomial logistic regression. The results of these analyses are displayed in Tables 3.4 – 3.7. My results confirm recent findings that decreases in religious institutional involvement and salience are more easily predicted than increases, suggesting that there may be distinct processes that explain the direction of movement for these types of religious change (Regnerus and Uecker 2006). This can be seen in Tables 3.4 – 3.6 when comparing the independent variables that are significantly associated with increases or decreases relative to the reference category indicating no change.

When examining the associations between the independent variables and increases in the four dimensions of religiosity most of the demographic factors do not have significant coefficients. Race appears to be an exception. When compared with whites both being black and Latino are positively associated with dramatic increase in institutional involvement. Being black is also negatively associated with having never committed one's life to God (transformational religious experience), positively associated with increases in religious salience and positively associated with movement to religious identity. These results may be due to increased importance that religious institutions can have within racial and ethnic communities (Ellison and Sherkat 1999). As youth progress through adolescence they may turn to religious institutions for community support or these communities could socialize young people to increase their religious involvements

and commitments as they age. These results suggest that further research should be done to explain the potential effects of race on dramatic religious change in adolescence.

Turning to the social context measures, the results that are significant were similar for dramatic changes in institutional involvement, religious experience, and religious salience. For these change types social context variables were not significantly associated with increases but followed similar patterns for decreases relative to the reference categories for no change. Among these three dramatic change types (Tables 3.4-3.6) both peer variables were positively associated with dramatic decreases (in the case of religious experience, having never committed). For changes in institutional involvement and religious salience, having a family structure of "other" relative to having two biological parents was also positively associated with decrease. This makes sense considering that less stable family structures were categorized into the "other" category, such as single parent with live-in romantic partner. Across these types of dramatic religious change there seems to be similarity in the relationships between social context and decreases. This suggests that there may be a uniform effect or process of peer and parental influence on dramatic religious change for adolescents regardless of type.

Interestingly, life course transition variables were significantly predictive of dramatic decreases in institutional involvement but not for the other types of dramatic change. The direction of the association for having moved away from parents is similar to past research findings showing that life course transitions can disrupt religious involvement and lead to affiliation changes (Smith and Sikkink 2003). Further, relative to the reference category for "no change," these life course transition variables were not significantly associated with dramatic increase but were associated with dramatic

decrease in institutional involvement. Having moved away form parents between waves was positively associated with dramatic decrease while having been married by Wave 3 was negatively associated with it. This suggests that marriage does not tend to lead to dramatic increases in involvement but rather has a stabilizing effect on religious institutional involvement by preventing dramatic decreases. This association was also present for religious experience but not for the other types of dramatic change.

Religious tradition variables were also associated with dramatic religious change types. Jewish, Mormon, and other religion were significantly less likely to decline in institutional involvement relative to mainline Protestant while conservative Protestant, not religious, Mormon were less likely to decline in religious salience relative to mainline Protestant. Since the Reltrad variable relied in part on place of worship many of those categorized as not religious were unable to dramatically decrease as much as the other categories. The negative associations of these religious traditions with dramatic declines and not increases suggest that prior involvement in these traditions also has a stabilizing effect, preventing dramatic declines relative to mainline Protestants. It is also worth noting that Conservative Protestant was not significant in predicting changes in institutional involvement relative to Mainline Protestant but it did prove to have associations with dramatic changes in religious experience and salience, as shown in Tables 3.5 and 3.6. These results suggest that Conservative Protestants are not significantly different than Mainline when looking at dramatic changes in involvement but they are less likely than Mainline to dramatically decrease in the importance of religion and more likely to have reported a religious experience prior to Wave 1.

Turning to dramatic religious identity change, there are some notable distinctions between the results from this regression and those for dramatic change in institutional involvement, religious experience and religious salience. In this case both changes into religious identity and out of it are predicted by several of the independent variables included in these analyses. Here both peer and parent social context variables are significant for either type of change, suggesting that social context measures predict religious identity instability. Having peers with different religions and having non-traditional family structures are positively predictive of changing relative to staying in the same religious identity. Unlike in the results for institutional involvement and religious experience, life course transition measures were not significantly associated with religious identity change. The measure for feeling "loved and accepted for who you are" at Wave 1 was significant and negatively predicted movement from a religious identity into non-religious. In other words, the more accepted respondents felt at Wave 1 the less likely they were to go from a religious identity to a non-religious identity. This suggests that feeling generally accepted is more strongly related to stability in religious identity than it is for any of the other dramatic change types.

The coefficients for religious traditions vary in significance when comparing the categories of movement into religious identity and movement into non-religious identity relative to "no movement." Catholic, Mormon, not religious, and other religion were all significant and positively predictive of movement into religious identity relative to Mainline Protestant. For movement into non-religious, Conservative Protestant, Mormon, and not religious were significant and negatively predictive relative to Mainline Protestant. Mormons and the non-religious were more likely to dramatically change

religious identities but not to become non-religious relative to Mainline Protestants. For the non-religious this is likely due to the fact that those in the non-religious Reltrad category were already not religious at Wave 1. The association for Mormon is a little less straightforward. Mormon is significantly more likely to dramatically change religious identity from Mormon to another religion than Mainline Protestant just not to "non-religious." This result is likely due to movement from respondents self-identifying as "other Christian" rather than Mormon. Comparing religious self-identification responses from Wave 1 and Wave 3, 12.31 percent of those responding "Mormon" at Wave 1 responded as "other Christian" for Wave 3. It is unclear from these survey data whether this change in identity is indicative of a dramatic religious change or not. For Conservative Protestants and Mormons the significant and negative results in predicting movement to non-religious is as suggested by the literature showing that individuals who are involved in religious traditions with strict boundaries are less likely to change (Loveland 2003; Smith and Sikkink 2003).

DISCUSSION

In these analyses I have compared four different approaches to measuring dramatic religious change. The sets of independent variables were chosen based on the types of variables of religious conversion and transformation suggested in the literature. It is not surprising then to find that the results confirm several prior findings in the area of religious conversion and religious transformation. These include the general trend for decrease in religious service attendance as youth age into young adulthood and the

importance of social context as measured by peer religious affiliation and parental structure in religious change across change types. Smith and Snell (2009) show that for most teens levels of subjective religiosity and external religiosity tend to go together, these results suggest that among the minority of youth who experience dramatic changes that these various changes do not necessarily to co-occur. The results reported here confirm their findings that youth do not simultaneously change in opposite directions on measures of religious involvement and that youth in general remain highly stable. Here I contribute to these findings to show that when dramatic change does occur in one dimension of religiosity there tends to be stability in the other dimensions, resulting in a lack of correlation between them. This suggests that there may be different processes that influence dramatic change from one type to another and that religious development is not uniform across these dimensions of religiosity, a point highlighted by the variation in the associations of the independent variables across change types.

There were also some interesting distinctions in the associations when comparing the different types of dramatic religious change that suggest several important differences in the relationships between change types and the factors that predict them. Life course transitions appear to have an association with institutional involvement and not on the other types of dramatic change. This is notable because it emphasizes the importance of life transitions and disruptions in the stability of religious institutional and organizational membership while suggesting that life transitions do not have strong relationships with types of subjective religiosity like salience or identity. It may be that life course transitions disrupt one's social networks and ability to maintain religious organizational membership but that these changes do not in-turn lead to a dramatic change in how

religious an individual is in other dimensions. This interpretation is in line with the general view that many people disaffiliate from institutional membership as young adults but reaffiliate once they marry and have children since it could be that these individuals did not dramatically change in their subjective religiosity (Stolzenbertg et al, 1995).

Perhaps the most interesting finding in these analyses is that while there were several similarities between the models predicting dramatic change in institutional involvement, religious experience, and religious salience, there are marked differences when comparing them to that of dramatic religious identity change. These differences are notable since focusing on subjective religious identity as a measure of dramatic religious change is not common in the literature. The distinctions between religious identity and more traditional measures like institutional involvement or salience further show that it is worthwhile to more carefully consider what is being measured when studying religious conversion, transformation, and change. These differences suggest that there may be different processes involved from one type of dramatic religious change to another and from one direction to another. As in past research (Regnerus and Uecker 2006) dramatic declines in religious measures and religious disaffiliation were more easily predicted than increases or religious affiliation when focusing on institutional involvement and religious salience but this finding is not so for religious identity change. In this case both types of movement, into a dramatically different religious identity and from a religious identity to non-religious, were predicted by social context and religious tradition measures. Curiously, social context measures predicted both types of change. It may be that peers and parents strongly influence religious identity but that the direction of that influence is dependent on the religious identities held by these peers and parents. Further research is

needed to parse out the conditions under which social contexts influence one direction versus another. The important finding here is that social context clearly matters and that the process may be the same for religious identity movement regardless of type.

These results emphasize the importance of subjective religious identity and show that dramatic changes in it are related to social context in ways that are different from other types of dramatic religious change that have been studied in the past. This supports past research that has conceptualized religious identity as a symbolic boundary that meaningfully distinguishes one religious tradition from another in the lived experience of individuals (Edgell, et al. 2006). From this view, social influences would be expected to have a strong association with religious identity since such identities serve as bases of social solidarity. Further, religious identity serves as a marker of membership with others who are "like me," such as peers and parents. Past research in religious conversion also theoretically supports this association by showcasing social networks' central role in processes leading to dramatic change. The results of these analyses further suggest that these relationships may be more strongly associated with subjective identity than with institutional involvement and organizational membership, highlighting the need for more research that is focused on subjective religious identity in order to gain a full understanding of religious change and stability.

As with all research, this study has several limitations. First, causality cannot be directly assessed using these data or methods and this is a limitation of this study. The relationships indicated in the regression models are merely associations and I cannot directly assess whether these predictors represent causes of dramatic religious change. I was also not able to include measures for dramatic changes in religious discourse in these

analyses. Without accounting for this dimension of religious change I could not directly address this large and influential line of inquiry in the literature on religious conversion and transformation nor could I compare variables associated with dramatic change in religious discourse with the other types.

This project was done in an effort to make a modest contribution to understanding religious change during the transition from adolescence into young adulthood. In it I have compared various types of dramatic religious change that have been the focus of literature in the scientific study of religious conversion and transformation in an effort to better understand dramatic religious change and to bring together approaches from disparate strains of inquiry. In doing so, I have confirmed some findings from past research and shown how they vary based on the way dramatic religious change is conceptualized and measured. The empirical findings presented suggest that there are meaningful differences between some types of dramatic religious change; most notably that dramatic religious identity change is distinct from more widely used approaches in studying dramatic changes. This highlights the need for further research on subjective religious identity as a dimension of dramatic change and the importance of theories that consider it in explaining causes and consequences of religious conversion and transformation.

Table 3.1
Descriptive Statistics for Independent Variables

VARIABLE	MEAN	SD	MIN	MAX
Social Context				
% Friends with Different Religion (W1)	30.08	34.57	0	100
% Change in Friends w/ Different Religion (W1 and W3)	7.08	43.21	-100	100
Family Structure (W1)				
Two Biological Parents	0.56	0.50	0	1
Step-Parents	0.14	0.35	0	1
Single-Parent	0.24	0.43	0	1
Other	0.06	0.23	0	1
Life Course Transitions				
Moved Away from Parents between W1 and W3	0.58	0.49	0	1
Has Been Married (W3)	0.07	0.26	0	1
Behavior and Personality				
Had Sex (W1)	0.20	0.40	0	1
Virginity Loss between W1 and W3	0.27	0.44	0	1
Feeling Accepted (W1)	2.67	0.60	1	4
Feeling Sad or Depressed (W1)	1.27	0.85	1	5
Youth Religious Tradition *(W1)*				
Conservative Protestant	0.33	0.47	0	1
Mainline Protestant	0.12	0.33	0	1
Black Protestant	0.11	0.31	0	1
Catholic	0.25	0.43	0	1
Jewish (excludes oversample)	0.02	0.13	0	1
Mormon	0.03	0.17	0	1
Not Religious	0.10	0.30	0	1
Other Religion	0.02	0.16	0	1
Indeterminate Religion	0.02	0.14	0	1
Demographic Controls				
Teen Race (W1)				
White	0.69	0.46	0	1
Black	0.15	0.36	0	1
Asian	0.01	0.11	0	1
Latino	0.10	0.30	0	1
Other	0.04	0.19	0	1
Don't Know	0.01	0.07	0	1
Female (W3)	0.52	0.50	0	1
Youth's Age (W3)	20.51	1.44	17.11	23.64
South Census Region (W1)	0.41	0.49	0	1

Source: The National Study of Youth and Religion, Waves I, II, and III.

Note: N=2208

Table 3.2
Percentage of Types of Dramatic Religious Change from Wave 1 to Wave 3

	N	Percent
Institutional Involvement		
Increase	142	5.79
Decrease	714	29.12
No Change	1,596	65.09
Total	2,452	100.00
Transformational Religious Experience		
Committed Between Waves	264	10.95
Never Committed	766	31.76
Committed Before Wave 1	1,382	57.30
Total	2,412	100.00
Religious Salience		
Increase	115	4.70
Decrease	307	12.55
No Change	2,025	82.75
Total	2,447	100.00
Religious Identity		
Movement to Religious	253	10.59
Movement to Non-Religious	429	17.96
No Change	1,706	71.44
Total	2,388	100.00

Table 3.3
Cohen's Kappa Statistics for Dramatic Religious Change Variables

	Institutional Involvement	Transformative Religious Experience	Religious Salience	Religious Identity
Institutional Involvement	--			
Transformative Religious Experience	-.032	--		
Religious Salience	.140	.026	--	
Religious Identity	.109	.150	.226	--

Table 3.4
Multinomial Logistic Regression Coefficients for Dramatic Change in Religious Institutional Involvement between Wave 1 and Wave 3

	Increase	Decrease
Social Context		
% Friends with Different Religion (W1)	.003	.007**
% Change in Friends w/ Different Religion (W1 and W3)	.003	.006**
Family Structure (W1)		
Two Biological Parents	--	--
Step-Parents	.457	.182
Single-Parent	.277	.190
Other	-.171	.475*
Life Course Transitions		
Moved Away from Parents between W1 and W3	-.319	.440***
Has Been Married (W3)	-.031	-.619*
Behavior and Personality		
Had Sex (W1)	.275	.500**
Virginity Loss between W1 and W3	-.086	.066
Feeling Accepted (W1)	-.119	-.048
Feeling Sad or Depressed (W1)	.104	-.046
***Youth Religious Tradition** (W1)*		
Conservative Protestant	.144	-.151
Mainline Protestant	--	--
Black Protestant	-.108	.007
Catholic	.337	-.151
Jewish (excludes oversample)	-38.523***	-1.431**
Mormon	.497	-.971*
Not Religious	.947	-5.404***
Other Religion	-.394	-1.181**
Indeterminate Religion	-.422	.521
Demographic Controls		
Teen Race (W1)		
White	--	--
Black	1.167*	-0.578*
Asian	-38.642***	.092
Latino	1.023**	-.288
Other	-.561	.040
Don't Know	1.459	.925
Female (W3)	-.317	.043
Youth's Age (W3)	-.038	-.028
South Census Region (W1)	.146	.050
Constant	-2.178	-.765
N	2204	
Log Pseudolikelihood	-1597.731	

* = p < .05, ** = p < .01, *** = p < .001

Note: The two categories "Increase in Institutional Involvement" and "Decrease in Institutional Involvement" are compared to the omitted reference category of "No Change in Institutional Involvement."

Table 3.5
Multinomial Logistic Regression Coefficients for Having a Transformational Religious Experience between Wave 1 and Wave 3

	Committed Between Waves	Never Committed
Social Context		
% Friends with Different Religion (W1)	.005	.008**
% Change in Friends w/ Different Religion (W1 and W3)	.004	.006**
Family Structure (W1)		
Two Biological Parents	--	--
Step-Parents	.053	-.021
Single-Parent	-.018	.202
Other	-.021	-.326
Life Course Transitions		
Moved Away from Parents between W1 and W3	-.160	.042
Has Been Married (W3)	-.320	-.848**
Behavior and Personality		
Had Sex (W1)	.366	.480*
Virginity Loss between W1 and W3	-.221	.088
Feeling Accepted (W1)	-.053	.167
Feeling Sad or Depressed (W1)	-.083	.019
***Youth Religious Tradition** (W1)*		
Conservative Protestant	-.665*	-.847***
Mainline Protestant	--	--
Black Protestant	-.118	-.550
Catholic	.511	.904***
Jewish (excludes oversample)	.050	1.865***
Mormon	-.201	-.427
Not Religious	1.762***	2.597***
Other Religion	.725	1.374**
Indeterminate Religion	-.332	1.053*
Demographic Controls		
Teen Race (W1)		
White	--	--
Black	.026	-.744*
Asian	.239	-.431
Latino	.439	.036
Other	.552	.136
Don't Know	.244	.855
Female (W3)	-.094	-.398**
Youth's Age (W3)	.037	-.008
South Census Region (W1)	-.326	-.367*
Constant	-2.219	-1.094
N	2176	
Log Pseudolikelihood	-1677.552	

* = p < .05, ** = p < .01, *** = p < .001

Note: The two categories "Committed Between Waves" and "Never Committed" are compared to the omitted reference category of "Committed before Wave 1."

Table 3.6

Multinomial Logistic Regression Coefficients for Dramatic Change in Religious Salience between Wave 1 and Wave 3

	Increase	Decrease
Social Context		
% Friends with Different Religion (W1)	.003	.007*
% Change in Friends w/ Different Religion (W1 and W3)	.002	.009***
Family Structure (W1)		
Two Biological Parents	--	--
Step-Parents	-.046	.413
Single-Parent	-.035	.264
Other	-.176	.050**
Life Course Transitions		
Moved Away from Parents between W1 and W3	.118	.238
Has Been Married (W3)	.079	-.539
Behavior and Personality		
Had Sex (W1)	.087	.249
Virginity Loss between W1 and W3	-.092	.102
Feeling Accepted (W1)	-.280	.074
Feeling Sad or Depressed (W1)	-.006	.112
***Youth Religious Tradition** (W1)*		
Conservative Protestant	-.564	-.810***
Mainline Protestant	--	--
Black Protestant	-.897	-1.024
Catholic	-.012	-.397
Jewish (excludes oversample)	-1.159	-.983
Mormon	-1.117	-1.422*
Not Religious	1.078*	-1.979***
Other Religion	.540	-.697
Indeterminate Religion	.529	-.355
Demographic Controls		
Teen Race (W1)		
White	--	--
Black	1.178*	-.198
Asian	-.646	-1.407
Latino	.052	-.471
Other	.063	-.196
Don't Know	-28.506***	-.033
Female (W3)	.139	-.144
Youth's Age (W3)	.032	-.044
South Census Region (W1)	-.301	.099
Constant	-4.248	-.441
N	2199	
Log Pseudolikelihood	-1110.168	

* = p < .05, ** = p < .01, *** = p < .001

Note: The two categories "Increase in Religious Salience" and "Decrease in Religious Salience" are compared to the omitted reference category of "No Change in Religious Salience."

Table 3.7
Multinomial Logistic Regression Coefficients for Dramatic Change in Religious Identity between Wave 1 and Wave 3

	To Religious	To Non-Religious
Social Context		
% Friends with Different Religion (W1)	.013***	.013***
% Change in Friends w/ Different Religion (W1 and W3)	.009***	.009***
Family Structure (W1)		
Two Biological Parents	--	--
Step-Parents	.569*	.525**
Single-Parent	.407*	.449*
Other	.751*	.485
Life Course Transitions		
Moved Away from Parents between W1 and W3	.256	-.224
Has Been Married (W3)	.339	-.507
Behavior and Personality		
Had Sex (W1)	.361	.278
Virginity Loss between W1 and W3	-.062	.174
Feeling Accepted (W1)	.190	-.238*
Feeling Sad or Depressed (W1)	.102	.075
Youth Religious Tradition *(W1)*		
Conservative Protestant	.140	-.440*
Mainline Protestant	--	--
Black Protestant	-.206	-.347
Catholic	1.384***	.083
Jewish (excludes oversample)	.828	.234
Mormon	2.103***	-1.162*
Not Religious	1.883***	-2.859***
Other Religion	1.970***	-.929
Indeterminate Religion	.773	.753
Demographic Controls		
Teen Race (W1)		
White	--	--
Black	1.039**	-.409
Asian	.169	.122
Latino	.204	-.501*
Other	.896*	.689
Don't Know	.713	1.208
Female (W3)	.068	-.362*
Youth's Age (W3)	.010	.043
South Census Region (W1)	.133	.041
Constant	-4.544**	-2.502*
N	2183	
Log Pseudolikelihood	-1502.752	

* = p < .05, ** = p < .01, *** = p < .001

Note: The two categories "Movement to Religious Identity" and "Movement to Non-Religious Identity" are compared to the omitted reference category of "No Change in Religious Identity."

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Chapter 4

Religion and Risk: Exploring the Relationships between Dramatic Religious Change and Substance Use of American Adolescents

By: Youn Ok Lee

Studies in adolescent development have focused on the associations between religiosity and adolescent substance use but less is known about potential influence of changes in religiosity on these behaviors. While there is some debate, research generally finds that religiosity has a modest, negative association with substance use (Bahr and Hoffmann 2008; Benda and Corwyn 1997). Recent work on the effects of religiosity on substance use finds that religion is influential across multiple drug types including cigarettes, heavy drinking, and marijuana (Bahr and Hoffmann 2008; Regnerus 2003). This body of research suggests that religiosity does have an association with a variety of substance use types, but highlights the need to improve our understanding of these associations. Researchers have emphasized the importance of social context and more comprehensive measures of religiosity in order to effectively move forward (Regnerus 2003; Longest and Vaisey 2008).

When considering the influence of religiosity on adolescents there is a dearth of research examining how religious changes affect youth outcomes so little is known about the how such changes relate to substance use (Edgell and Meier 2005). If religiosity has an influence on youth substance use independent of other social influences then it would be expected that dramatic changes in it would correspond to changes in substance use behavior. Assessing this relationship is complicated by the measures used to

operationalize changes in religiosity, here I use the term *dramatic religious change* to broadly refer to drastic changes in religiosity such as religious conversion and transformation. Past research on the relationship between religion and substance use suffers from narrowly considering religiosity by using only one or two religious measures despite the fact that religion is multidimensional (Regnerus 2003). This tendency found in past studies and the frequent reliance on cross-sectional data or small local samples highlight the need for examining the relationship between multiple dimensions of religiosity and adolescent behaviors with large-scale representative data over time (Edgell and Meier 2005; Regnerus 2003). Further, most studies on dramatic religious change focus on the experiences of religious change (e.g. religious conversion experiences) or by identifying factors that predict religious change; few studies assess consequences of religious change among youth, especially in terms of risk behavior.

The research question I examine in this study is: Is dramatic religious change associated with substance use initiation? In order to address this question I consider the associations of dramatic increases and decreases in four types of religious change suggested by the literature on religious conversion and transformation with three types of substance use initiation (cigarette, marijuana, and alcohol). This approach addresses both the need for more multidimensional measures of religiosity in assessing the relationship between religion and youth outcomes as well as the need for longitudinal research aimed at understanding the consequences of dramatic religious changes in adolescence.

BACKGROUND

Religion and Adolescent Substance Use

While there is some debate, religion has been found to have a negative association with adolescent substance use in research on youth outcomes (Baier and Wright 2001; Regnerus 2003; Bjarnason, et al., 2005; Chu 2007; Bahr and Hoffman 2008). Despite this growing body of literature there remains uncertainty about the influence of religiosity in adolescent substance use due to the potentially inadequate inclusion of control variables as well as sampling and methodological limitations of past studies (Baier and Wright 2001; Wallace et al. 2007). In light of mixed findings from prior work and the debate surrounding the influence of religiosity on substance use, recent research has focused on overcoming the limitations of prior studies to provide more reliable empirical evidence on religion and youth substance behavior (Bahr and Hoffman 2008; Longest and Vaisey 2008). This work assesses several theoretical approaches that connect religion and substance use.

In an effort to explain the relationship between religiosity and youth outcomes scholars have drawn upon two major theoretical traditions: social learning theory and social control theory. According to social control theory, the ties between individuals and to social institutions prevent them from deviant behavior like substance use (Hirschi 1969). This theoretical approach suggests attachments to religious organizations and their members make substance use less likely for a number of reasons. Religious attachments could impose negative sanctions on substance use, involvement may reduce opportunities for substance use, religious beliefs could provide meaning that makes substance use less attractive, and religious teachings generally oppose substance use (Bahr and Hoffman 2008). According to social learning theory, individuals learn to use substances in small groups where they are socialized to have positive attitudes toward

substance use (Akers 1992; Reed and Rountree 1997). Social learning theorists have focused on families and friends as the primary social contexts for learning about substance use (Bahr and Hoffman 2008).

Additionally some scholars have recently suggested that social control theory and social learning theory do not adequately explain the relationship between religion and behavior (Regnerus 2003). These approaches are based on the argument that religion can affect adolescents directly by serving as a source for the motivation to act. Smith (2003) suggests that there is something essentially religious in religious involvement that accounts for the influence of religion in the lives of youth. Longest and Vaisey (2008) have recently applied this proposition to the case of adolescent substance behavior by focusing on the initiation of marijuana use. In their study they find that religious moral directives can motivate action directly when they are internalized.

Together, these theories and past findings suggest several influences that should be included in analyses of the association between religion and youth substance behaviors. Both social learning theory and social control theory posit that adolescents develop relationships with other people who influence their substance use behaviors making it important to consider social context. Consistent with social learning theory, peers are consistently found to have an association with adolescent substance use, with religious youth being less likely to have substance-using peers (Bahr and Hoffman 2008; Longest and Vaisey 2008; Brook, Brook, and Richter 2001; Marcos, Bahr, and Johnson 1986). Similarly, research consistent with social control theory has found that religious family and institutional ties are associated with lower levels of youth substance use (Aseltine 1995; Ramirez et al. 2004). Religion is both a source of greater social control and

integration as well as conflict within families depending on how well it is shared among family members, highlighting the need to consider the religious characteristics of the social contexts youth find themselves in (Pearce and Haynie 2004).

In terms of demographic characteristics, age is positively related to drug use (Bahr and Hoffmann 2008; Hoffmann and Johnson 1998) and negatively associated with religious involvement (Regnerus and Elder 2003). Gender is also important since boys tend to use substances more than girls (Hoffmann and Johnson 1998) and religious involvement also varies by gender with girls tending to be more involved than boys (Smith, et al. 2002). Racial differences may also have an influence when it comes to the association of religion and substance use behaviors since white youth smoke, drink, and use other drugs more than black youth (Amey, Albrecht, and Miller 1996) and since black youth also report higher attendance and importance of religion in their lives (Johnston et al. 1999; Smith et al. 2002).

These findings suggest that research focused on explaining the association between religiosity and adolescent substance use behaviors ought to consider demographic, social context (e.g. peer, family), and religiosity measures. Considering a wide range of measures for religiosity is particularly important since one major limitation of prior research efforts is a failure to adequately measure the many dimensions of it by only including one or two religious measures and relying too heavily on measures of attendance and affiliation (Regnerus 2003).

Types of Dramatic Religious Change

Four dimensions of religiosity are primarily used to conceptualize religious change in the literature on religious conversion and transformation: institutional involvement, experience, discourse, and salience[5] (Snow and Machalek 1984). The most common way of operationalizing religious change is through institutional involvement. Religious service attendance and group membership are often used as reliable measures of public and collective expression of religion through which change can be evaluated (Regnerus and Uecker 2006). In studies focusing on religious conversion in particular many scholars have focused on the conversion experience as a unique type of religious experience defined by various characteristics (Snow and Machalek 1984; Richardson 1985). Religious change is often viewed in terms of the experiential process of religious change (Edwards and Lowis 2001; Rambo 2000; Baston, et al. 1993). Discourse is also treated as an indicator of religious change. Some scholars have conceptualized religious conversion as a change in one's universe of discourse (Jones 1978; Snow and Machalek 1984; Snow and Machalek 1983). This line research emphasizes a highly subjective form of religious change that embraces more of the social psychological identity changes implied by traditional conceptualizations of conversion (Snow and Machalek 1984). Following this approach in its emphasis on subjective measures, recent work has used religious salience as an indicator of dramatic religious change (Regnerus and Uecker 2006).

In addition to these, subjective religious identity is a distinct and meaningful dimension of religiosity that is subject to dramatic changes among youth (Edgell and Meier 2005). Subjective religious identity is crucial for understanding religious life

[5] Snow and Machalek identify three types: membership, demonstration events, and rhetorical patterns. Here I refer to these same types more generally as institutional involvement, experience, and discourse. I add salience in light of research that is more recent than Snow and Machalek's review.

because religious identities represent the symbolic boundaries that meaningfully distinguish one religious tradition from another in the lived experience of individuals and are widely recognized as the basis for religious social organization that do not necessarily align with institutional membership or intense spiritual experience (Edgell, et al. 2006; Lamont and Molnar 2002; Warner 1993). The adoption of a radically different religious identity could therefore represent a distinct change in the cultural and moral standards or norms that an individual perceives him or herself to possess or strive for. This could affect substance use behaviors through identity and self-categorization processes that help explain individual conformity with in-group norms leading to homogeneity (Tajfel 1978; Turner, et al. 1987). This is especially relevant in this case since according to social control theory religious groups are theorized to promote norms that sanction or discourage substance use (Bahr and Hoffmann 2008; Hirschi 1969). These theories suggest that considering religious identity change along with the four widely used dimensions of religiosity would provide a more comprehensive measure of dramatic religious change than most studies of youth behavior take into consideration.

Adolescent Substance Use and Dramatic Religious Change

As discussed previously, religion has generally been found to have a modest negative association with substance use. Based on this, we would expect types of dramatic religious change that represent increases in religiosity to be modestly and negatively associated with substance use initiation. Conversely then, we would also expect types of dramatic religious change that represent decreases or disaffiliation with religious involvement to be modestly positively associated substance use initiation.

The types of dramatic religious change can be used to measure multiple dimensions of religiosity, responding to the need for studies focusing on youth substance use to measure the multidimensionality of religion that is called for in the youth outcome literature (Regnerus 2003). Focusing on dramatic religious change over time rather than measures of religiosity at one time point allows for the assessment of associations between religious processes and substance use behavior that address this multidimensionality. Considering variation in religious change processes is important since adolescence is a time in the life course where individuals experience comparatively more religious change (Regnerus and Uecker 2006; Gillespie 1991; Spilka et al. 2003). While research has shown that youth are generally stable in terms of religion, there do appear to be distinct religious trajectories as people age from youth to young adulthood (Smith and Snell 2009; Pearce and Denton 2010; Edgell and Meier 2005). This highlights the need for research to consider that multiple processes could be at work among the minority of youth who experience dramatic religious change. Past research has found evidence suggesting that processes leading to religious decline or disaffiliation are particularly distinct from processes leading to increases (Regnerus and Uecker 2006). The previous chapter also includes analyses showing that these types are not highly correlated (see Ch. 2 Table 3), suggesting that there may be different processes involved across different types of dramatic religious change. Together, these findings suggest that it may be beneficial to distinguish dramatic religious changes based on type and direction.

With regard to youth outcomes, considering processes of religious change could better assess the relationship between religion and substance use than the commonly used

measures of religious attendance or salience at a single time point. This is especially relevant since research has suggested that different aspects of religion have effects on youth outcomes that vary as youth develop through adolescence (Regnerus 2003). In light of past research, it is worthwhile to explore whether having undergone different types of dramatic religious change are associated with substance use initiation. In this study I compare having undergone four different types of dramatic religious change, specifically change in: institutional involvement, experience, salience, and identity. In addition, I make distinctions between having undergone increase or decrease in these dimensions. This treats each change independently rather than operationalizing religious change as a general increase or decrease in a single continuum of religiosity.

In an effort to explore the potential relationship between dramatic religious change and substance use I examine whether having undergone the different types of changes have different results in terms of substance use initiation. If these types display varying patterns of association it would suggest that there are meaningful distinctions between types and directions of dramatic religious change. Identifying potential variation in association across dimensions of religiosity and substance use initiation types would provide a better understanding of the relationship between religion and youth substance use.

DATA

NSYR Survey Data

The panel data used in these analyses comes from two Waves of the National Survey of Youth and Religion (NSYR). The NSYR is a nationally representative telephone survey of U.S. English and Spanish speaking teenagers between the ages of 13 and 17, and their parents. Although not included in these analyses, the NSYR also includes 80 oversampled Jewish households, bringing the total number of completed NSYR cases for Wave 1 to 3,370. Eligible households included at least one teenager between the ages of 13-17 living in the household for at least six months of the year. Diagnostic analyses comparing NSYR Wave 1 data with 2002 U.S. Census data on comparable households and with comparable adolescent surveys---such as Monitoring the Future, the National Household Education Survey, and the National Longitudinal Study of Adolescent Health---confirm that the NSYR provides a nationally representative sample without identifiable sampling and non-response biases of U.S. teenagers ages 13-17 and their parents living in households (for details, see Smith and Denton 2003). A separate weight is used in multivariate analyses that control for census region and household income, which adjusts only for number of teenagers in household and number of household telephone numbers. The second Wave of telephone surveys began in June of 2005 and ran through November 2005. Approximately 78% of the original youth survey respondents (ages 16-20 at the time) were successfully re-surveyed in Wave 2. In Wave 3 2,532 original youth respondents participated in the survey for an overall Wave 1 to Wave 3 retention rate of 77.1 percent. The main source of attrition in the third Wave was again non-located respondents (although not necessarily the same as those not located in Wave 2). The Wave 3 refusal rate, calculated as the number of eligible

respondents (3,282) who refused, was 6 percent. The percentage of respondents who completed all three Waves of the survey was 68.4 percent.

METHODS AND MEASURES

In order to assess the influence of the types of dramatic religious change on substance use initiation for cigarette smoking, marijuana use, and alcohol use I use logistic regression. Since I focus on initiation into substance use I restricted each set of models to only include cases that did not report use of the substance measured by the included dependent variable at Wave 1. This in effect dropped cases that reported prior initiation and who were not eligible to initiate into use. After also omitting cases with missing values on the independent variables, models with initiation into regular cigarette smoking as the dependent variable had an N=1,974, likewise, for alcohol use N=1,298, and for marijuana use N=1,612.

Dependent Variables

Substance Use Initiation

I examined three type of substance use in this paper in order to evaluate the relationships between dramatic religious change and youth outcomes: cigarette use, marijuana use and alcohol use. As in past research (Longest and Vaisey 2008), I focus on initiation into substance use rather than frequency of use so that I can estimate the influence of the predictors on engaging a new substance use behavior and avoid conflation with influence of past substance use behavior. I consider changes in substance

use by comparing responses as of Wave 1 with substance use by Wave 3. I do not use Wave 2 data in the substance use measures.

Respondents were asked about their cigarette smoking behaviors in all survey waves. All those who reported that they did not smoke at least once a day at Wave 1 and Wave 3 were coded as 0. Those who reporting that they did not smoke at least once a day at Wave 1 and that they did smoke once a day or more by Wave 3 were considered to have initiated into regular smoking behavior and coded as 1. Of the 2,273 cases of nonsmokers as of Wave 1, a total of 349 cases (15.35 percent) initiated into regular cigarette smoking by Wave 3.

Similarly, variables for initiation into marijuana and alcohol use were also created from Wave 1 and Wave 3 responses. For marijuana use, all those who reported never having used marijuana in both Waves 1 and 3 were coded as 0 and all those who reported never having used marijuana at Wave 1 who reported any level of use by Wave 3 were considered to have initiated into marijuana use and coded as 1. Of the 1,865 cases of non-marijuana users as of Wave 1, a total of 434 cases (23.27 percent) initiated into marijuna smoking by Wave 3. This same procedure was used to create a measure of initiation into alcohol use resulting in 1,057 cases (69.36 percent) of a total of 1,524 non-alcohol users from Wave 1 that were considered alcohol use initiators. Summary statistics for all three dependent variables are reported in Table 4.2.

Independent Variables

The four types of dramatic religious change included here are the same as those examined in the previous analysis (Chapter 3). Those analyses show that these types are

correlated but not strongly so (see Chapter 3, Table 3.3). This suggests that these four types are related but distinct so I continue to include all four measurements to assess different types of dramatic religious change. In addition, all independent variables were assessed for multicollinearity with a variance inflation factor (VIF) test using the most inclusive regression model. The resulting VIF values were all under 5, with the highest VIF value among the variables included in these analyses being 3.29 for African American Protestant.

Dramatic Change in Institutional Involvement

In order to measure dramatic change in institutional involvement I used a measure of change in service attendance from Wave 1 to Wave 3. For this variable I used data from the same survey item asked in both Waves to measure how often the respondent attended religious services at the primary place they worship (if any) not counting funerals, weddings, etc. The seven answer categories varied from "never" to "more than once a week." Cases who say that they do not attend services were categorized as "never." Change was measured by categorizing change in response values that were three categories higher or lower in Wave 3 than those reported in Wave 1. For example, if a respondent answered "once a week" at Wave 1 and "few times a year" by Wave 3 then that was categorized as a decrease in religious institutional involvement. Changes that were only one or two categories higher or lower were not considered dramatic enough for this analysis and were categorized as "no change." The final measure for dramatic change in religious institutional involvement has three categories for increase, decrease, and no change.

Dramatic Change Through a Transformational Religious Experience

To measure having had a transformational religious experience I used variables from Wave 1, Wave 2, and Wave 3 that measure if the respondent has made a "personal commitment to live their lives for God". The Wave 3 item specifies that the respondent consider the past two years when answering the question so in order to account for the time between Waves 1 and 2 I also used the Wave 2 response to the same question. The final measure for having has a transformational religious experience between Waves 1 and 3 had three answer categories: never committed, committed between Waves 1 and 3, and had committed before Wave 1.

Dramatic Change in Religious Salience

Dramatic change in religious salience was measured by categorizing change in the subjective level of the importance of religion from Wave 1 to Wave 3. This was measured using data from questions that asked "How important or unimportant is religious faith in shaping how you live your daily life?" with five answer categories that ranged from "extremely important" to "not important at all." Change was measured by categorizing change in response values that were two categories higher or lower than those reported in Wave 1. For example, if a respondent answered "extremely important" at Wave 1 and "somewhat important" by Wave 3 then that was categorized as a decrease in religious salience. Changes that were only one category higher or lower were not considered dramatic enough for this analysis. The final measure for dramatic change in religious salience has three categories for increase, decrease, and no change.

Dramatic Change in Religious Identity

Dramatic religious identity change was measured by creating three category variable created from variables capturing self-reported religious identity. For cases that were too ambiguous or infrequent in the original dataset to be coded into religious traditions I used the verbatim responses that were available to code as many as possible into religious identity categories. The resulting variable included categories measuring whether respondents consistently answered the same way or if they changed their answer compared with that of the first Wave. The three-category dependent variable measured religious identity change. It was created from survey items that asked all respondents to name the religion that they generally consider themselves to be at Waves 1 and 3. The first category was for respondents who reported the same religious identity in both Waves of data. The next category measured whether respondents reported a different religious identity in Wave 3 than they had reported in Wave 1. The third category measured cases where respondents answered with a religious tradition at Wave 1 and answered "not religious" by Wave 3. The third category measured a drop of religious identity for respondents who reported any religious identity at Wave 1 to reporting "not religious" at Wave 2. Distinguishing between these types of religious change is important since recent research has suggested that there may be different processes behind these the different change outcomes (Regnerus and Uecker 2006). All categories were mutually exclusive and the dependent variable is exhaustive.

Social Context

Social context was measured using several variables including measurements of both social environment and life events involving the people with whom adolescents have close personal ties, their friends and parents. One of these measures captures the religious difference between the respondent and each of the respondent's five closest non-parental relationships. The NSYR asked respondents to list the 5 closest friends who were not their parents and then answered a series of questions about these five people. If respondents were unable to list 5 they were asked to list as many as they could. Using items that ask whether the five friends has similar religious beliefs as the respondent or not[6], I created a percentage of the number of people nominated who did not have similar religious beliefs out of the total number of people nominated at Wave 1.

The second measure of social context is of the change in the percentage of the respondents' five closest non-parental friends that did not have similar religious beliefs as the respondent from Wave 1 to Wave 3. In these data there is no way of determining if the same individuals were considered among the five closest in both Waves, but I was able to include change in percentage of the 5 closest friends. The values of this variable range from -100 to 100, with -100 indicating a change of reporting that all of the nominated friends were non-similar religiously at Wave 1 to reporting that all of the nominated friends were similar religiously by Wave 3. Conversely, a value of 100 indicates a change from reporting that all of the nominated friends were similar religiously at Wave 1 to reporting that all were different religiously by Wave 3. A value of 0 indicates no change between Waves.

[6] Cases where responses to friend's religious alignment were "don't know" were treated as missing so as not to affect similarity or difference in the final value.

The third set of social context variables measure family structure at Wave 1 according to the survey responses of the parent respondent. These measures consist of a set of four dummy variables for family structure: two biological parents, stepparents, single parent, and other parental arrangement. The first variable measures if parent reported that he or she is a biological parent who lives in the household with a spouse whose relationship to the teen respondent is biological parent. The second variable for stepparents includes cases where there is one biological parent who is married to someone in the household whose relationship to the teen is reported as stepparent or adoptive parent. The next variable for single parent household includes cases where the unmarried parent respondent is a biological parent, adoptive parent, or legal guardian and not living with a romantic partner. All other family types were categorized as other (ex. unmarried parent living with romantic partner).

Religious Tradition

The measure used for teen religious tradition was created in the NSYR Wave 1 dataset as the variable RELTRAD. This measure of religious tradition categorized teens into major religious types (similar to the RELTRAD method in Steensland el al. 2000). Each teen was coded as either: Conservative Protestant, Mainline Protestant, Catholic, Black Protestant, Jewish, Mormon, Not Religious, Other Religion, or Indeterminate Religion. Reltrad was created based on the type of religious congregation that the teen reported they attend. If the church type they provided was not sufficient to place the teen into a reltrad category, additional variables from both the parent and the teen were used to make a determination. This approach captures the religious background and experience

of the teen rather than the teen's subjective identity.

Demographic Controls

Demographic control variables include measures of teen sex, teen race, teen age, and region of residence. Dummy variables for race included "White Teen," "Black Teen," "Asian Teen," "Latino Teen," "Other," and a sixth variable for missing, "don't know" and "refuse". A single dummy variable for region was included indicating if a respondent lived in the South Census region or not. Teen age (measured as a continuous variable based on birth date) and sex (female=1, male=0) are also included in every model. All demographic control variables were measured at Wave 1 with the exception of sex and age. These measures were taken from the Wave 3, as recommended by NSYR investigators. (NSYR W3 Codebook)

All of the variables used in these analyses are displayed on Table 4.1.

RESULTS

Initiation into Regular Cigarette Smoking

Logistic regression odds ratios for initiation into regular cigarette smoking are reported in Table 4.3. Models1 – 4 include the dramatic religious change variables individually along with youth religious tradition categories and the set of demographic controls. In these models, several of the dramatic religious change variables are significant and positively associated with smoking initiations while the religious tradition variables are not significant. This result is in line with similar research that has found

that religious tradition has little association with youth outcomes while religious commitment and practice does have an association (Smith and Snell 2009).

In Model 5 the dramatic religious change variables are all included in the model together. Here each of the significant variables remains significant with the exception of movement to not religious. The lack of significance of dramatic religious salience is notable since many past approaches rely on measures of religious salience to account for religiosity. The variables for having had a dramatic decrease in institutional involvement, having a transformational religious experience, and having moved into a religious identity show generic associations when controlling for religious tradition. That is, irrespective of specific religious tradition these types of dramatic religious change are associated with initiation into regular cigarette smoking behavior.

In model 6 measures for social context are added. The variables for the percentage of nominated friends who use drugs or drink alcohol at Wave 1 and the increase in this percentage between Wave 1 and Wave 3 were both statistically significant and positive. Parental religious alignment variables were not significant, suggesting that peer substance use is more important for initiation into regular smoking than parent religious alignment. In this model the measure for changing religious identity dropped from significance while the other two dramatic religious change variables remained. Model 7 includes the addition of two life course transition measures for moving away from parents and having been married. Both of these variables were significant when controlling for all other independent variables suggesting that life course transitions influence initiation into cigarette smoking. The results for the dramatic religious change variables across these three models show that peer substance use

accounts for the influence of having moved into a new religious identity but not for religious institutional involvement or having a transformational religious experience.

Initiation into Marijuana Use

For initiation into marijuana use Models 1 – 4 in Table 4.4 were constructed similarly to those for assessing initiation into cigarette use. In these models having a Mormon religious tradition was significantly negatively associated with initiation relative to mainline Protestant but did not show an association in models controlling for dramatic changes in institutional involvement. Model 5 included the set of dramatic religious change variables, religious tradition at W1, and the demographic controls. This further supports the importance of differences in dimensions of religiosity over religious traditions in influencing substance use initiation.

In Model 6 social context measures were added. As was the case for initiation into cigarette smoking, both peer measures were significant and positive while none of the parent religiosity measures were significant. Model 7 included the life course transitions measures and unlike for cigarette smoking, having moved way from parents was not significant while having been married was negative and significant.

Demographically, for initiation into marijuana use the association of female all drop from significance once the social context measures were introduced in Model 6 with peer substance use measures being strongly significant, suggesting that social context accounts for the influence of gender. In addition, the significance for age also drops once life course transitions are included (Model 7). Among the demographic variables

included here, only parents' income shows a significant association with marijuana use initiation throughout the models.

One notable difference between this set of models for initiation into marijuana use and those for initiation into regular cigarette smoking is that for marijuana use having never "committed to living one's life for God" was significantly associated with initiation where having committed was associated for cigarettes relative to having committed before Wave 1. This result suggests that for marijuana use there is no difference between those who had committed before Wave 1 and those who committed between waves. There may be some other characteristic not considered here that is shared among people who have this type of religious experience during adolescence that is associated with marijuana use initiation. This is different from the results for cigarette use that show an association for having committed between waves that is significantly different from that of having committed before Wave 1. For cigarette use initiation, there may be something about this religious experience in particular rather than some shared characteristic. The fact that this measure appears to have different relationships with initiation into these two substances suggests distinct processes of religious influence for different substance use behaviors.

Initiation into Alcohol Use

As with the previous tables, Table 4.5 displays models for initiation into alcohol use that include the dramatic religious change variables individually along with youth religious tradition categories and the set of demographic controls. In Model 3 the variable for dramatic decrease in religious salience is significant but drops when all of the

dramatic religious types are added together in Model 5, as does conservative Protestant. In Model 5 once all of the dramatic religious change types are included neither dramatic decline in salience nor conservative Protestant are significantly different in their association with alcohol initiation than their respective omitted reference categories.

In Model 6 social context variables were included and as with initiation into both regular cigarette use and marijuana use, the peer variables were significant and positive but two parental religious alignment variables were also significantly associated with alcohol use initiation. Here having a single non-religious parent and having a single religious parent were both significant and positively associated with initiation into alcohol use relative to having two parents with the same religion. The odds ratio for having a single non-religious parent was 4.170 while the one for having a single religious parent was 1.751. This suggests that relative to having two parents who share the same religion having either a religious or non-religious parent is positively associated with alcohol use initiation but that the association between non-religious and alcohol initiation is much stronger. Adding measures for life course transitions in Model 7 did not alter the statistical significance or direction of the significant variables from Model 6 but having been married was significantly negatively associated with alcohol initiation.

In the case of alcohol use, dramatic decrease in religious institutional involvement and having never committed remained positive and significant across all models. In addition, being Mormon was negative and significant while all other religious tradition variables were not significantly different from mainline Protestant. The association between Mormon and alcohol use initiation was the only case of any religious tradition variable having a significant association relative to mainline Protestant in the most

inclusive models across the substance use types. This suggests that there is something unique about being Mormon that makes it distinct as the only religious tradition with an association while controlling for peer and dramatic religious change variables. Further research is needed to explain this association and why it appears in models assessing initiation into alcohol use and not the other substance types.

Dramatic Religious Change Across Substance Use Initiation Types

Across all of the substance use initiation types, dramatic decrease in institutional involvement was significant even when controlling for being not religious at Wave 1, showing that it is not simply being not religious but it is *becoming* disaffiliated from religious involvement that is associated with substance use. Those who dramatically increase institutional involvement show no difference from those who did not change, suggesting that there is not a converse association where processes of becoming involved with a religious institution is negatively related to substance use initiation.

The results for having had a transformational religious experience are similar for both marijuana and alcohol use initiation. These show that an association for having committed between waves is not significantly different from that of having committed before Wave 1 with respect to marijuana smoking and alcohol. For cigarettes there may be something about this religious experience in particular that has a relationship with initiation. The results when assessing initiation into cigarette use are different than for marijuna and alcohol. The fact that this type of dramatic religious change appears to have different relationships with initiation into these substances suggests distinct processes of religious influence for different substance use behaviors.

While past research has generally found that religion has a modest negative association with substance use not all of the dramatic religious change types had significant associations with the substance use behaviors. In the most inclusive models none of the variables for dramatic change in religious salience or identity were significant. This is a particularly notable result since so many past studies have relied on similar measures to account for the association of religion with substance use and other delinquent behaviors. This finding supports recommendations from past studies, which assert that future research on youth outcomes would benefit from a multidimensional approach to measuring religiosity.

The two types of dramatic religious change that were significant had positive associations between dramatic religious decline (or disengagement) and marijuana and alcohol use initiation. There were no converse associations showing increases in religious engagement to be negatively associated with substance use initiation. Having had a transformational religious between waves was associated with initiation into regular cigarette use. These results suggest that there are differences in associations across dramatic religious change types with regard to substance use initiation. It does not appear that religiosity is easily measured by one dimension or that the relationship between religiosity and substance use is linear. Overall, these results support continued efforts to consider the multidimensionality of religiosity in research examining youth outcomes. In particular, these findings highlight the potential importance of understanding the processes of institutional disaffiliation and transformational religious experience.

DISCUSSION

In addressing whether dramatic religious change is associated with substance use initiation, the results assessing the relationships of the four types of dramatic religious change varied somewhat across substance types. This suggests that the relationship between religion and substance use may involve different aspects of religiosity and may be due to a variety of processes. The results of this study suggest that that mixed findings reported in past studies could be in part due to there being a variety of processes involved in the religious development of adolescents that are related to substance use behaviors. Few studies consider this and attempt to assess the effects of measurements of religiosity that are not sensitive to religious multidimensionality. Untangling the variety of religious experiences and development trajectories adolescents undergo as they age into adulthood could provide a more accurate and nuanced understanding of religiosity its effects on youth outcomes. The results presented here are a modest step in this direction.

Of course causality cannot be directly assessed using these data or methods and this is a limitation of this study. I cannot confirm whether dramatic religious changes or substance use initiation occurred first. It may be that individuals engage in behaviors that contest their religious involvements and that this contributes to decline and disaffiliation (Thornton 1985; Thornton and Camburn 1989) but findings supporting this interpretation are mixed (Regnerus and Uecker 2006; Meier 2003). Further research using data and methods that can better empirically address causal mechanisms is needed to better understand the potential processes that explain the varied associations between types of

dramatic religious change and youth outcomes. Data that include more finely timed time points or ethnographical approaches could be used to address this limitation. Also, this study focused on substance use initiation and did not include increases or decreases in substance use behaviors. The findings reported here do not necessarily describe youth who began substance use early in adolescence or childhood. Future studies could also benefit from using longitudinal data that measures early onset of substance use to address more of the variation in substance use patterns among youth.

In sum, these findings support the theoretical emphasis on social context in adolescent substance use and the need for a wide variety of measures of religiosity in future studies. In terms of dramatic religious change, I have presented evidence that suggests there may be something specific to the process of disaffiliation or disengagement with religion that has a relationship with substance use initiation. Future research should further evaluate this process to enhance theories addressing the relationship between religion and risk behaviors. Our understanding of religiosity and youth outcomes could benefit from further exploration into the potential processes of religious change over adolescence and how they might relate to substance use.

Table 4.1

Descriptive Statistics for Independent Variables

VARIABLE	MEAN	SD	MIN	MAX
Dramatic Religious Change				
Institutional Involvement				
Increase	.058	.234	0	1
Decrease	.291	.454	0	1
No Change	.651	.477	0	1
Transformational Religious Experience				
Committed Between Waves	.109	.312	0	1
Never Committed	.318	.466	0	1
Committed Before Wave 1	.573	.495	0	1
Religious Salience				
Increase	.047	.212	0	1
Decrease	.125	.331	0	1
No Change	.828	.378	0	1
Religious Identity				
Movement to Religious	.106	.308	0	1
Movement to Non-Religious	.180	.384	0	1
No Change	.714	.452	0	1
Social Context				
% Friends who use drugs or drink alcohol (W1)	15.089	27.584	0	100
% Change in Friends who use drugs or drink alcohol (W1 and W3)	25.459	41.161	-100	100
Parent Religious Alignment, W1				
Parents with Same Religion	.546	.498	0	1
Parents with Different Religions	.086	.280	0	1
One of Two Parents is Religious	.080	.272	0	1
Neither Parent is Religious	.028	.166	0	1
Single Religious Parent	.238	.426	0	1
Single Non-Religious Parent	.021	.145	0	1
Life Course Transitions				
Moved Away from Parents between W1 and W3	.568	.495	0	1
Has Been Married (W3)	.070	.255	0	1
Youth Religious Tradition *(W1)*				
Conservative Protestant	.324	.468	0	1
Mainline Protestant	.112	.316	0	1
Black Protestant	.115	.319	0	1
Catholic	.243	.429	0	1
Jewish (excludes oversample)	.015	.123	0	1
Mormon	.025	.155	0	1
Not Religious	.118	.323	0	1
Other Religion	.027	.161	0	1
Indeterminate Religion	.021	.144	0	1
Demographic Controls				
Teen Race (W1)				
White	.675	.469	0	1
Black	.166	.372	0	1
Asian	.013	.114	0	1
Latino	.102	.302	0	1
Other	.038	.192	0	1
Don't Know	.006	.076	0	1
Female (W3)	.512	.500	0	1
Youth's Age (W3)	20.495	1.443	17.11	24.42
Parents' Income (W1)	6.035	2.888	1	11
South Census Region (W1)	.414	.493	0	1

Source: The National Study of Youth and Religion, Waves I, II, and III.

Table 4.2
Percentage of Types of Substance Use Initiation Between Wave 1 to Wave 3

	N	Percent
Regular Cigarette Smoking		
No Initiation	1,924	84.65
Cigarette Initiation	349	15.35
Total	2,273	100.00
Marijuana Use		
No Initiation	1,431	76.73
Marijuana Initiation	434	23.27
Total	1,865	100.00
Alcohol Use		
No Initiation	467	30.64
Alcohol Initiation	1,057	69.36
Total	1,524	100.00

Source: The National Study of Youth and Religion, Waves I and III.

Table 4.3
Logistic Regression Odd Ratios for Initiation into Daily Cigarette Smoking between Wave 1 and Wave 3

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Dramatic Religious Change							
Institutional Involvement							
Increase	1.273				1.037	1.099	1.094
Decrease	2.308***				2.309***	1.845**	1.963***
No Change	--				--	--	--
Transformational Religious Experience							
Committed Between Waves		1.850*			1.866*	1.755*	1.760*
Never Committed		1.401			1.273	1.139	1.144
Committed Before Wave 1		--			--		
Religious Salience							
Increase			1.252		1.117	1.178	1.145
Decrease			1.019		.805	.796	.817
No Change			--		--	--	--
Religious Identity							
Movement to Religious				1.841**	1.632*	1.522	1.512
Movement to Non-Religious				1.501*	1.422	1.318	1.304
No Change				--	--	--	--
Social Context							
% Friends who use drugs or drink alcohol (W1)						1.020***	1.021***
% Change in Friends who use drugs or drink alcohol (W1 and W3)						1.015***	1.016***
Parent Religious Alignment, W1							
Parents with Same Religion						--	--
Parents with Different Religions						1.394	1.345
One of Two Parents is Religious						1.478	1.441
Neither Parent is Religious						1.641	1.438
Single Religious Parent						.965	.969
Single Non-Religious Parent						1.021	.932
Life Course Transitions							
Moved Away from Parents between W1 and W3							.675*
Has Been Married (W3)							2.071*
***Youth Religious Tradition** (W1)*							
Conservative Protestant	1.322	1.283	1.213	1.239	1.363	1.623	1.576
Mainline Protestant	--	--	--	--	--	--	--
Black Protestant	.947	.861	.886	.936	.952	.892	.863
Catholic	.961	.821	.892	.852	.823	.965	.961
Jewish (excludes oversample)	1.858	1.302	1.472	1.297	1.515	1.475	1.552
Mormon	.837	.745	.739	.671	.765	.922	.855
Not Religious	1.420	.807	.945	.961	1.196	1.112	1.154
Other Religion	2.658*	1.766	1.979	1.823	2.193	2.337	2.278
Indeterminate Religion	2.162	2.353	2.346	2.268	2.018	2.618	2.662
Demographic Controls							
Teen Race (W1)							
White	--	--	--	--	--	--	--
Black	.442*	.429**	.407*	.384*	.424*	.465*	.481
Asian	.429	.403	.429	.434	.409	.403	.397
Latino	.485*	.459*	.459*	.463*	.485*	.506*	.461*
Other	.803	.867	.870	.806	.753	.786	.801
Don't Know	.708	.717	.750	.669	.627	.648	.637
Female (W3)	.648**	.667**	.659**	.670**	.660**	.798	.828
Youth's Age (W3)	.960	.962	.964	.961	.950	.941	.937
Parents' Income (W1)	.862***	.858***	.858***	.859***	.862***	.839***	.853***
South Census Region (W1)	1.275	1.336	1.290	1.284	1.318	1.380*	1.338
N	1974	1974	1974	1974	1974	1974	1974
Log Pseudolikelihood	-759.19	-770.91	-775.49	-769.84	-749.82	-709.08	-702.91

* = p < .05, ** = p < .01, *** = p < .001

Source: The National Study of Youth and Religion, Waves I, II, and III. Survey weight included in all models.

Table 4.4
Logistic Regression Odd Ratios for Initiation into Marijuana Use between Wave 1 and Wave 3

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Dramatic Religious Change							
Institutional Involvement							
Increase	.733				.816	.863	.841
Decrease	2.103***				2.053***	1.527*	1.541*
No Change	--				--	--	--
Transformational Religious Experience							
Committed Between Waves		1.227			1.451	1.521	1.490
Never Committed		1.669**			1.577*	1.610*	1.552*
Committed Before Wave 1		--			--	--	--
Religious Salience							
Increase			.551		.643	.727	.745
Decrease			1.331		1.049	1.151	1.117
No Change			--		--	--	--
Religious Identity							
Movement to Religious				.883	.899	.834	.845
Movement to Non-Religious				1.542*	1.316	1.275	1.268
No Change				--	--	--	--
Social Context							
% Friends who use drugs or drink alcohol (W1)						1.030***	1.031***
% Change in Friends who use drugs or drink alcohol (W1 and W3)						1.024***	1.024***
Parent Religious Alignment, W1							
Parents with Same Religion						--	--
Parents with Different Religions						1.052	1.078
One of Two Parents is Religious						.965	.953
Neither Parent is Religious						1.009	1.050
Single Religious Parent						1.168	1.149
Single Non-Religious Parent						1.484	1.711
Life Course Transitions							
Moved Away from Parents between W1 and W3							.951
Has Been Married (W3)							.101***
***Youth Religious Tradition** (W1)*							
Conservative Protestant	.691	.685	.659	.672	.767	.967	1.032
Mainline Protestant	--	--	--	--	--	--	--
Black Protestant	1.874	1.714	1.769	1.753	1.874	2.047	2.092
Catholic	.844	.716	.807	.821	.786	.923	.921
Jewish (excludes oversample)	1.381	.944	1.164	1.114	1.177	1.302	1.346
Mormon	.434	.380*	.371*	.389*	.495	1.084	1.266
Not Religious	1.706	.919	1.318	1.383	1.487	1.501	1.513
Other Religion	1.304	.875	1.149	1.126	1.156	1.546	1.593
Indeterminate Religion	.882	.889	.980	.925	.785	1.021	.979
Demographic Controls							
Teen Race (W1)							
White	--	--	--	--	--	--	--
Black	.568	.588	.558	.570	.628	.636	.611
Asian	.802	.844	.819	.788	.804	.867	.900
Latino	.876	.847	.850	.847	.891	.942	.982
Other	1.304	1.163	1.079	1.036	1.029	1.058	1.010
Don't Know	2.797	2.516	2.806	2.630	2.426	2.080	2.292
Female (W3)	.681**	.700*	.701*	.694*	.690*	.813	.844
Youth's Age (W3)	.863**	.882*	.877**	.875**	.866**	.863*	.892
Parents' Income (W1)	1.096***	1.091**	1.095***	1.098***	1.099***	1.102**	1.096**
South Census Region (W1)	.814	.844	.804	.814	.851	.816	.822
N	1612	1612	1612	1612	1612	1612	1612
Log Pseudolikelihood	-813.85	-824.28	-827.10	-825.86	-805.92	-706.69	-697.55

* = p < .05, ** = p < .01, *** = p < .001
Source: The National Study of Youth and Religion, Waves I, II, and III. Survey weight included in all models.

Table 4.5

Logistic Regression Odd Ratios for Initiation into Alcohol Use between Wave 1 and Wave 3

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Dramatic Religious Change							
Institutional Involvement							
Increase	1.153				1.195	1.416	1.395
Decrease	2.934***				2.848***	2.273***	2.217***
No Change	--				--	--	--
Transformational Religious Experience							
Committed Between Waves		1.186			1.265	1.169	1.149
Never Committed		2.351***			2.408***	2.143**	2.095**
Committed Before Wave 1		--			--	--	--
Religious Salience							
Increase			1.184		1.201	1.209	1.203
Decrease			1.665*		1.384	1.435	1.385
No Change			--		--	--	--
Religious Identity							
Movement to Religious				1.002	.910	.734	.712
Movement to Non-Religious				1.188	.825	.729	.732
No Change				--	--	--	--
Social Context							
% Friends who use drugs or drink alcohol (W1)						1.030***	1.030***
% Change in Friends who use drugs or drink alcohol (W1 and W3)						1.016***	1.016***
Parent Religious Alignment, W1							
Parents with Same Religion						--	--
Parents with Different Religions						1.391	1.487
One of Two Parents is Religious						1.838	1.859
Neither Parent is Religious						.761	.797
Single Religious Parent						1.751*	1.685*
Single Non-Religious Parent						4.170*	4.700*
Life Course Transitions							
Moved Away from Parents between W1 and W3							1.148
Has Been Married (W3)							.479*
***Youth Religious Tradition** (W1)*							
Conservative Protestant	.508*	.506*	.490**	.467**	.588	.730	.732
Mainline Protestant	--	--	--	--	--	--	--
Black Protestant	1.337	1.268	1.403	1.271	1.475	1.609	1.664
Catholic	1.131	.892	1.098	1.041	1.028	1.232	1.245
Jewish (excludes oversample)	2.592	.888	1.413	1.298	1.117	1.184	1.173
Mormon	.153***	.133***	.141***	.133***	.167***	.207***	.225***
Not Religious	1.276	.589	.965	.934	.845	.833	.808
Other Religion	.488	.272*	.394	.382	.359	.319	.330
Indeterminate Religion	1.587	1.633	2.906	1.055	1.446	2.254	2.092
Demographic Controls							
Teen Race (W1)							
White	--	--	--	--	--	--	--
Black	.451**	.456**	.417**	.430**	.474**	.416**	.398**
Asian	.799	.665	.738	.701	.799	.860	.872
Latino	.642*	.626	.605	.606	.668	.683	.736
Other	.616	.770	.698	.690	.698	.673	.642
Don't Know	1.534	1.352	1.708	1.604	1.408	.937	.972
Female (W3)	.836	.873	.859	.854	.858	1.001	1.016
Youth's Age (W3)	1.131*	1.143*	1.136*	1.134*	1.143*	1.166**	1.180**
Parents' Income (W1)	1.104***	1.097**	1.095**	1.094**	1.108***	1.153***	1.143***
South Census Region (W1)	.995	1.073	1.009	1.006	1.072	1.075	1.103
N	1298	1298	1298	1298	1298	1298	1298
Log Pseudolikelihood	-726.06	-737.55	-746.03	-748.67	-713.81	-666.21	-662.87

* = p < .05, ** = p < .01, *** = p < .001

Source: The National Study of Youth and Religion, Waves I, II, and III. Survey weight included in all models.

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Chapter 5: Conclusion

By: Youn Ok Lee

Throughout the three papers that comprise this dissertation, I explore how youth change over time as they transition from adolescence into young adulthood to gain a better understanding of the various patterns of religious development. Across all three papers I find that adolescents are largely stable when it comes to attitudes about religion and measures of religiosity but that there are interesting and informative patterns among the minority of youth who experience religious change. Each paper resulted in general findings that suggest future directions and considerations going forward.

Regarding pluralism and diversity the general finding is that a majority of youth in the U.S. have attitudes that are favorable to religious diversity and that over time, change in these attitudes tend to favor this diversity. These data show that by the time most youth reach high-school age their attitudes about religious pluralism tend to stay the same through late adolescence and early adulthood despite the fact that this is a time characterized by developmental and social change. These results suggest being pluralistic or non-pluralistic to be largely stable over time, but further research needs to be done to properly evaluate whether this stability extends into adulthood.

With regard to the association between diversity and pluralism that characterizes much of the discussion surrounding pluralism, I find that type of diversity matters. The results show that peer and parent religious diversity measures have an association with

the probabilities of becoming pluralistic or non-pluralistic while the religious diversity in county of residence does not. This emphasizes the importance of close ties as potential sources of relevant experiences of religious diversity. In addition, the results show that while a small number of youth changed with regard to pluralism they were much more likely to become pluralistic than non-pluralistic. Together these findings suggest that most youth are already stably pluralistic by adolescence and that exposure to religious diversity through direct social ties influences youth to become pluralistic, providing empirical support for larger discussions about American culture among scholars of religion.

Turning to religious identity and change, results from a comparison in changes in a variety of religiosity measures suggests that there are meaningful differences from one to another. The findings presented here support recommendations made by other researchers that studies empirically consider the multidimensionality of religiosity. In addition, the results show that the different dramatic religious changes do not necessarily to co-occur further suggesting that there is enough variation among measures of religiosity to justify differentiating them into distinct dimensions in analyses. This also suggests that there may be different processes that influence dramatic change from one type to another and that religious development is not uniform across these dimensions of religiosity.

Among the different types of dramatic religious change religious identity change had different associations with several of the factors than the other types, suggesting that religious identity change is distinct from the other types. These differences are particularly notable since focusing on subjective religious identity as a measure of

dramatic religious change is not common in the literature. The distinctions between religious identity and more traditional measures like institutional involvement or salience further show that it is worthwhile to more carefully consider what is being measured when studying religious conversion, transformation, and change. These differences further suggest that there may be different processes involved from one type of dramatic religious change to another and from one direction to another. When assessing the associations between these types of religious change and substance use initiation, the results further suggest that there are meaningful differences in changes from one measure of religiosity to another that are associated with youth outcomes. The results of this study suggest that that mixed findings reported in past studies could be in part due to there being a variety of processes involved in the religious development of adolescents that are related to substance use behaviors. This fits with the suggestion of prior analyses that there may be different processes involved that explain variation from one type of dramatic religious change to another. Few studies take this into consideration. Untangling the variety of religious experiences and development trajectories adolescents undergo as they age into adulthood could provide a more accurate and nuanced understanding of religiosity its effects on youth outcomes. More research is needed to determine if there are distinct processes across dramatic religious change types, and if so, describe how the processes operate in the lives of youth.

Together these findings suggest that the religious lives of youth are best characterized by stability but among the minority who experience change, there are different processes involved across different types of religious change and that peer influence is associated with all of them. Further, the results highlight the need for

research on religious change to take the multidimensionality of religiosity into account. This is especially true of understanding religious changes that involve increases in religious engagement or experience since declines are more easily predicted. For youth who are regularly engaged and involved with religious institutions and commitments there appear to similar processes of disengagement and decline. The paths that lead into higher levels of religious activity or from disengagement into engagement appear to be more difficult to pin down. One interpretation could be that religious organizations and involvements serve as a more regular and structured “starting place” from which some youth disengage, engendering similarity among those who experience religious disengagement. Conversely, youth who are disengaged to begin with likely “start” from a wider variety of backgrounds and contexts. This increased variety could influence the trajectories and religious development of those who become religiously involved, making such involvement much less easy to assess, especially since those who become religiously engaged during this time are a relatively small minority. Research that is interested in assessing general trends would likely be challenged to pick up on this type of variation. Of course further research is needed to empirically address these issues since the results reported here are unable to confirm or disconfirm this interpretation.

There are a variety of limitations that apply across these papers that should be noted going forward. As with any observation study using survey data, there can be no determination of causality with these analyses. Even with multiple waves of data, it is impossible to pinpoint whether religious change or other correlates change first between the time points. For example, I cannot confirm whether dramatic religious changes or substance use initiation occurred first. In fact, there is strong theory to expect causal

influence to run in both directions. In this work, I take the first step toward better understanding these dynamics, establishing the existence of overall associations. Further research using data and methods that can add new layers of evidence is needed to better understand the potential processes that explain the varied associations described in these papers. Survey data that better measures the timing of events (like the timing of substance use initiation or religious change, although both might be difficult for youth to report on) could improve our knowledge. Less structured forms of interviewing may be able to probe narratives about how various life changes unfolded. And, ethnographic observation may allow researchers to see these processes unfold in the lives of youth. All would provide richer data on the causal processes.

Future studies could also benefit from using longitudinal data that capture a wider range in time. Since most dimensions of religiosity are largely stable across this time in the life course, data that capture the previous time period when youth acquire religious characteristics and behaviors could allow us to better assess if changes happen earlier, and if there are originating factors that influence subsequent stability and change. Also, data that include subsequent phases in the life course could allow for assessments of how changes during adolescence play out as youth are socialized into other adult roles, such as parenthood.

Future research will have to empirically address these issues to inform a more comprehensive understanding of religious identity and change. Acknowledging my limitations, it has been my goal to contribute, however modestly, to efforts to better understand the variety of religious change that is experienced by some adolescents as they age into young adulthood. There remains much to explore regarding the causes and

consequences of religious change in terms of pluralism, religious identity, and substance use. I hope that the findings presented here contribute to future research efforts to better understand religiosity.