MEASURING RELIGIOUS IDENTITY:
HOW RELIGIOUS CENTRALITY AND IDENTITY SALIENCE RELATE TO ADOLESCENT
BEHAVIOR

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ABSTRACT

SALLY MORRIS: Measuring Religious Identity: How Religious Centrality and Identity Salience
Relate to Adolescent Behavior
(Under the direction of Lisa Pearce)

Sociologists of religion and adolescence often employ questions about how important religion is to an individual (religious centrality) in order to indirectly measure the likelihood that an individual will act on a religious identity (religious identity salience). While measures of religious centrality are seemingly indirect measures of religious identity salience, identity theorists have shown that as components of identity, centrality and salience are conceptually and empirically distinct. Utilizing the National Study of Youth and Religion, I take this research in identity theory and place it in a religious context to explore how these two components of religious identity are empirically and substantively related, and how their relationship affects our assessment of the association between religious identity and behavior. Findings include: 1) measures of religious centrality are not sufficient as indirect measures of religious identity salience; 2) religious identity salience only partially mediates the relationship between religious centrality and behavior, contrary to popular assumption; and 3) these two components of religious identity interact such that adolescents who have both high levels of religious centrality and high levels of religious identity salience have significantly different likelihoods of participating in certain behaviors than adolescents who have high levels of only one or the other. Implications for future research on religious identity and behavior are discussed.

TABLE OF CONTENTS

LIST OF TABLES

I. Introduction

"I am often confronted by the necessity of standing by one of my empirical selves and

relinquishing the rest. Not that I would not, if I could, be both handsome and fat and well-

dressed, and a great athlete, and make a million a year, be a wit, a bon-vivant, and lady-killer, as

well as a philosopher…But the thing is simply impossible….So the seeker of his truest, strongest,

deepest self must review this list carefully, and pick out the one on which to stake his salvation."

–William James, *The Principles of Psychology*

While being a "philosopher" may not be in the top ten of most desirable adolescent

identities (though being a "lady killer" might be), having a religious identity features prominently

in American adolescent life. In comparison to other similarly developed countries, the U.S. is

fairly religious, with 97% of adolescents aged 13 to 17 claiming they believe in God and 41% of

them reporting they attend religious services weekly or more (Smith and Denton 2005).

Sociologists of religion and adolescence have long sought to link religious belief to

adolescent behavioral outcomes. Religious identity is thought to be connected to behavior

through the moral directives provided by religion; for teens who consider religion important in

their lives, religion can act as a moral compass upon which they can rely when navigating

adolescence (Smith 2003). Much of the past work connecting religious identity to behavior has

utilized large-scale survey datasets to measure the importance of religious identity. This work

typically operationalizes the strength of religious identity through a general importance

question, for example: "How important is religion in your everyday life?" These types of

questions are designed to measure whether religious identity is important enough to an

adolescent such that he would "stake his salvation" (look to religion when making behavioral decisions) on it.

Approaching this work from the perspective of identity theory, general importance questions are a measure of an identity's psychological centrality, or how much an individual values an identity as part of his sense of self. While seemingly an indirect measure of how likely an individual is to act on an identity, identity theorists conceptually differentiate how much individuals value an identity (psychological centrality) from how likely they are to act on it (identity salience). Some scholars in religious research have made this distinction, measuring and discussing religious identity salience using behavioral reports as suggested by identity theorists (Stryker and Serpe 1982; Wimberly 1989). Yet various factors, including the difficulty of asking identity salience questions in large surveys, have led to the primary use of psychological centrality measures to assess the strength of religious identity, and consequently, the application of identity salience rhetoric to theories of how the centrality of religious identity is related to behavior.

A study by Stryker and Serpe (1994) compared these two measures empirically. They showed that for some identities, centrality and identity salience measure the same underlying conceptions associated with the strength of an identity, while for other identities these measures have distinct relationships with behavior. Unable to draw conclusions about for what identities centrality and identity salience are distinct measures, they caution against using one in place of the other.

Stryker and Serpe's (1994) caution against using only centrality or identity salience as a measure of identity strength has not been incorporated into the realm of religious research, even though much of the work on the relationship between religion and behavior utilizes only centrality measures to assess religious identity strength. In this paper, I utilize a unique

longitudinal dataset, the National Study of Youth and Religion (NSYR), to systematically explore the relationship between centrality and identity salience as measures of the strength of religious identity in influencing behavior. The NSYR is unique in that it includes measures of both religious centrality and religious identity salience; most large-scale datasets used by religious researchers only include measures of religious centrality.

This research will enable me to answer important questions such as: 1) do we misspecify the relationship between religious centrality and behavior in not accounting for religious identity salience in models which only look at religious centrality in relation to behavior, and 2) are religious centrality and religious identity salience so distinct that adolescents who have different combinations of them have measurably different behavioral outcomes? Answers to these and other questions will advance theoretical and empirical understanding of exactly how religious identity is related to behavioral outcomes. In doing so, this research also will contribute to the burgeoning work on culture and cognition, which explores how cultural elements, such as religion, influence behavior through cognitive mechanisms like identity.

I begin this paper by reviewing the general difference between centrality and identity salience in the identity theory tradition, giving examples of how they can be used to measure the strength of religious identity. I then explain how scholars came to rely solely on religious centrality to measure the strength of religious identity and why doing so is potentially problematic. Next, I illustrate how religious centrality and religious identity salience could relate in different ways and provide theoretical reasons for why people might have different combinations of the two measures than might be expected. Finally, I list a series of research questions that I will use to explore how religious centrality and religious identity salience relate to each other in isolation and with respect to various adolescent behaviors. I conclude by

3

discussing the impact the relationship of these two concepts has on our understanding of the

association between religious identity and behavioral outcomes.

II. Literature Review

Defining Centrality and Identity Salience

Identity theory portrays the self as an organized whole consisting of individual identities, of which there can be as many as the number of distinct roles that a person holds in a network of social relationships (Stryker 1968). For example, an individual could hold the identities of mother, CEO, a friend, and a religious person. There are two conceptualizations of how identities are organized hierarchically within the self. The first, a theory of psychological centrality, is based on the importance attributed to each identity by an individual. The second, a theory of identity salience, is based on the likelihood that an identity will be enacted in or across various social situations, which is not necessarily dependent on how much importance the individual attributes to an identity.

Theories of psychological centrality stem from the work of McCall and Simmons (1978) and Rosenberg (1979). Centrality, also known in their work and other's work as *importance,* is how important an individual feels an identity is to his/her sense of self. In this conceptualization, identities are organized based on how much an individual prizes an identity, which itself is a function of the individual's interests and subjective values (Ervin and Stryker 2001). Measures of centrality are evaluative in nature, asking respondents to reflect on their feelings about their various identities (Stryker and Serpe 1994). Thornton and Camburn (1989:644) provide a classic example of a question that measures centrality as it pertains to a religious identity (hereafter referred to as *religious centrality*): "Quite apart from attending religious services, how important would you say religion is to you – very important, somewhat important, or not important?" The

more important an individual sees a religious identity, the more likely that identity, and the moral norms associated with prevailing religious beliefs, is to be associated with behavior.

In contrast, identity salience originates from the conceptualization that identities are arranged based on their likelihood of being enacted in or across various situations. Stryker (1968) originally defined identity salience as the readiness or propensity to act on an identity. This propensity is a function of the individual's commitment or strength of ties to the social relationships from which the identity emerged (Stryker and Burke 2000). Unlike in theories of centrality where an identity's hierarchical location is determined by a self-judgment of importance, identity salience is not always tied to importance, and individuals are not necessarily aware of how salient an identity might be (Stryker and Serpe 1994). As such, measures of identity salience are not evaluative in nature, but rather are based on "behavioral reports" (Stryker and Serpe 1994). For example, Stryker and Serpe (1982:210) measure identity salience in the following way: "Suppose it were a weekend and you had a choice to do the following things (go to a religious service or activity, go on an outing with/visit your children, catch up on work, spend time with your husband or wife, none of these). Which would you most likely do? Next? Next?" Each behavioral option is tied to an underlying identity, and the measure of identity salience is how highly the respondent ranks each option in comparison to the others presented. In this question, a very salient religious identity would be indicated if the respondent selected the religious option as their first choice.

Centrality and Identity Salience: Interchangeable or Distinct?

Historically, religion scholars utilized both measures of religious centrality (Bahr, Bartel, and Chadwick 1971; Roof and Perkins 1975; Hoge and Zulueta 1985) and measures of religious identity salience (Stryker and Serpe 1982; Wimberly 1989). However, those of identity salience are more complicated to ask in surveys. As will be detailed later, identity salience measures

generally involve asking respondents to report behavior across a number of situations and so require more time to implement than the single questions that are used to measure religious centrality. Due to the amount of time and space they take up in surveys, identity salience measures largely have disappeared from studies examining the relationships between religious identity and behavior. Religious centrality became the standard way to measure religious identity and account for the internalization of religious beliefs (Smith 2003). While many studies rightly discuss religious centrality as the importance of religion to an individual, some apply the label and rhetoric of identity salience (likelihood of acting on religious identity) to centrality measures (Bahr et al. 1971; Gibbs, Mueller, and Wood 1973; Hoge and Zueleta 1985; Regnerus and Smith 2005; Longest and Vaisey 2008). For example, Longest and Vaisey (2008:691) define religious salience as the "likelihood that an adolescent uses religion in making decisions," but they measure it using a combination of religious centrality and religious identity salience measures, thus conceptually and empirically confounding the two concepts.

Using religious centrality to indirectly measure the likelihood of acting in accordance with religious identity may not seem like a significant issue, for scholars believe that one explanation for the link between religious centrality and behavior is religious identity salience. High religious centrality is theorized to be closely related to a high likelihood of acting on a religious identity (see Gibbs et al. 1973; Hoge and Zueleta 1985; Wimberly 1989; Stryker and Burke 2000). The reasoning behind this theory is relatively basic: individuals seek to minimize cognitive dissonance, the perceived distance between what identities they hold and what identities they enact. Distance between "self-concept and actual behavior should produce an inherently painful situation, disrupting the *Gestalt* of the self" (Wimberly 1989:131), meaning that an individual who sees herself as a very religious person (has high religious centrality)

should have a greater likelihood of acting in accordance with prevailing religious beliefs (have high religious identity salience) than someone who doesn't see herself as religious.

However, Stryker and Serpe (1994) suggest otherwise in a seminal piece investigating the relationship between centrality and identity salience with respect to time spent in certain roles. They found that an individual's judgment of how important an identity is (centrality) relates to the likelihood that identity will be enacted (identity salience) for some roles, while for other roles, the effects of centrality and identity salience on time spent in the role were quite distinct. More importantly, Stryker and Serpe (1994:31) found that for the roles in which centrality and identity salience were highly correlated, statistical models that incorporated only one of the variables "are misspecified, and estimates of the effect of either [variable]…may be quite inaccurate." Unable to make any conclusions about for what behaviors models using only centrality or identity salience might be misspecified, they conclude their work with a caution against using only one measure or the other when looking at the relationship between identity and behavior.

Stryker and Serpe's (1994) study did not look at centrality and identity salience in relation to religious identity. Thus, we do not know whether using religious centrality to indirectly account for the likelihood of enacting religious identity is an issue. For some behaviors, it could be that questions of religious centrality actually do measure religious identity salience, the likelihood of acting on a religious identity. However, it is also possible that measures of religious centrality and religious identity salience pick up on different parts of what it means to hold a religious identity, meaning studies that use only religious centrality in their models to measure the strength of religious identity may be missing part of the puzzle.

8

As stated earlier, centrality is more a function of an individual's interests and subjective values, whereas identity salience is a function of an individual's commitment to the social relationships from which the identity emerged. Dichotomizing religious centrality and religious identity salience into categories of HIGH and LOW can help us understand theoretically exactly how religious centrality and religious identity salience could relate (Ervin and Stryker 2001). Figure 1 illustrates the categories that are produced when religious centrality and religious identity salience are split into HIGH and LOW and compared in a table:

Graphical Illustration of the Categories Created by Crossing Religious Centrality and Religious Identity Salience

Religious Identity Salience

		Low	High
Religious Centrality	Low	A. Low Centrality, Low Salience	B. Low Centrality, High Salience
	High	C. High Centrality, Low Salience	D. High Centrality, High Salience

Cells A and D make logical sense in light of the current literature on religious identity that operates as if religious centrality and religious identity salience are highly correlated. For example, Thornton and Camburn (1989:642) have an often cited study of religious participation and adolescent sexual behavior that clearly illustrates how scholars connect these two concepts. They write that "individuals who…value religion in their lives are probably more likely than others to develop sexual attitudes and behavior that are consistent with religious teachings." In other words, the less importance an individual places on her religious identity, the less likely she

is to act on it (Cell A). The more importance an individual places on her religious identity, the more likely she is to act on it (Cell D).

Cells B and C, should they exist, are the ones that could cause issues should religious centrality be used as a measure of religious identity salience or vice versa. Why would someone who doesn't value religion be very likely to act upon a religious identity (Cell B), and conversely, why would someone who does value religion highly be not likely to act upon a religious identity (Cell C)? While I do not attempt to answer these questions in this paper, I do posit potential reasons why people may fall into Cells B or C to give theoretical backbone to the importance of investigating the relationship between religious centrality and religious identity salience. What reasons are there to think that religious centrality and religious identity salience might not be positively correlated?

First, Ervin and Stryker (2001) discuss the structural constraints that keep people enacting certain identities that they dislike. Remember that an identity's salience is a function of the commitment to the social relationships from which that identity emerges. Often people will continue to enact a behavior consonant with an identity they do not value because of obligations to people with whom that identity is connected. For example, one can picture an adolescent who doesn't value her religious identity acting "religiously" (e.g. avoiding alcohol, practicing abstinence), because of her ties to those who support her religious identity (e.g. parents, religious friends). This adolescent would fall into Cell B.

Alternatively, Cell C would represent an adolescent who highly values her religious identity but is not likely to act in accordance with the moral norms associated with that identity. One potential reason for this disconnect is that the adolescent doesn't see religion as a primary moral authority. Rather, the adolescent looks to other forms of moral authority that may offer behavioral courses of action that compete with that of religion. A long line of work has shown

that source of moral authority is highly related to behavioral outcomes (Bellah et al. 1989; Hunter 2000; Vaisey 2009) but that adolescence is a period during which teens are awash in often competing moral frameworks (Smith 2003). As stated earlier, identity theory holds that identities are organized hierarchically within the self. The possibility exists that a religious identity may be seen as very important to an adolescent, but that another identity with a competing moral framework is more important. When these two identities intersect, the alternate identity either wins out over the religious identity, or it somehow mediates the effect of the religious identity such that the behavioral outcome isn't fully consonant with the prevailing religious moral order (Read and Eagle 2011).

These reasons are just a couple of many that could explain why measuring the behavioral influence of religious identity using only religious centrality might be problematic. Yet in addition to statistical models that use only one or the other being misspecified, there is another reason why examining the relationship between religious centrality and religious identity salience is fruitful. As stated previously, religious centrality often is used as an indirect measure of religious identity salience, because importance of religious identity logically seems to connect to the likelihood of acting on that identity. Stated differently, it would seem that religious identity salience mediates the relationship between religious centrality and behavior. This oft-used theory can be tested to advance understanding of the process by which placing high importance on an identity is associated with certain behavioral outcomes.

Summary

In this paper, I place work from identity theory on psychological centrality and identity salience into a religious context to explore the degree to which religious centrality and religious identity salience are empirically related and how their association affects scholars' theoretical assessments of the relationship between religious identity and behavior.

I posit a series of five research questions designed to examine the relationship between these two concepts across four different behaviors. Testing this relationship across a variety of behaviors is necessary to understand how the relationship changes based upon situational context. Identities are cognitive schemas that serve "as frameworks for interpreting experience" and "increase sensitivity and receptivity to certain cues for behavior" (Stryker and Burke 2000:286). Consequently, the relationship between religious centrality and religious identity salience (and their relationship to behavior) might change depending upon the behavior in question and what identities are cued in different individuals by the possibility of engaging in that behavior.

Research Questions

RQ1 As demonstrated earlier, religious centrality and religious identity salience are conceptually distinct. This conceptual distinction, however, does not guarantee empirical distinction. What is the bivariate relationship between these two variables? Specifically, do people who have high religious centrality typically also have high religious identity salience?

RQ2 Considering that religious centrality and religious identity salience may measure the same underlying conception of what it means to hold a religious identity, do they have empirically distinct relationships with behavior? Or, is accounting for one of these concepts in a statistical model the same as accounting for both?

RQ3 Following Question 2, scholars rely on religious centrality as an indirect measure of religious identity salience because logically, it seems the two should be highly correlated such that religious centrality works through high religious identity salience in influencing behavior. Is the relationship between religious centrality and behavior at least partially mediated by religious identity salience?

RQ4 Has not disentangling conceptually and empirically religious centrality from religious identity salience impacted the assessment by religious scholars of the relationship between religious centrality and various behaviors? More specifically, have scholars over or underestimated the substantive association between religious centrality and behavior in not accounting for religious identity salience in statistical models?

RQ5 Does the likelihood of participating in various behaviors differ between adolescents who have high religious centrality but low religious identity salience (Cell C in Fig. 1) and those who have high religious centrality and high religious identity salience (Cell D in Fig.1)? In other words, are adolescents who score high on both categories, more, the same, or less likely to engage in certain behaviors than those who have high religious centrality but low religious identity salience? How much difference does religious identity salience make?

III. Data and Sample

The data for this study come from the National Study of Youth and Religion (NSYR), a nationally representative, longitudinal panel survey, the purpose of which was to study the religious lives of U.S. teenagers as they grew into young adulthood. In this paper, I utilize the first two waves of survey data, during which the respondents were still in adolescence (the oldest respondent in Wave 2 was 20).

The beginning, Wave 1 sample was designed to be representative of U.S. households in which at least one teenager between the ages of 13 and 17 had lived for at least six months. The sample was created through random-digit-dialing (RDD), using telephone numbers representative of all household telephones in the fifty states. The random-digit-dial method was employed to: 1) allow a number of religious questions to be asked that would not have been allowed in other sampling settings (e.g. schools) and 2) provide greater anonymity as compared to in-person interviews, likely decreasing the social desirability response bias on sensitive questions in regards to subjects like sexual behavior and alcohol use. In addition, interviewers asked to conduct the survey with the teenager in the household who had the most recent birthday to further randomize the teens selected. For more information on how the NSYR compares to other nationally representative datasets, see Smith and Denton (2005).

Wave 1 was conducted from July 2002 to April 2003 and Wave 2 from June 2005 through November 2005. Of the original Wave 1 sample, 78.6% of respondents completed Wave 2. The sample size used in this research is 2,292, 68% of the original Wave 1 sample. This reduced sample size reflects adolescents who participated in both Waves 1 and 2 of the NSYR, as well as those who had complete information across all the variables used in analysis.

Independent Variables

        Religious centrality and religious identity salience. As this paper explores the empirical relationship between religious centrality and religious identity salience and the effects of this relationship on adolescent behavior, the operationalization of these concepts as variables is crucial.

        The NSYR includes a standard measure of religious centrality: "How important or unimportant is religious faith in shaping how you live your daily life?"[1] Answers were: _not important at all, not very important, somewhat important, very important,_ and _extremely important_. I collapsed these five categories into two, creating a dichotomous variable that represents respondents have who have "high" religious centrality and those who have "low" religious centrality. Respondents who answered _very_ or _extremely important_ were coded as 1 for high centrality, and those who answered any of the other three options were coded as 0 for low centrality.

        I measure religious identity salience using a question that read, "If you were unsure of what was right or wrong in a particular situation, how would you decide what to do?" Responses were: _Do what would make you feel happy_, _Do what would help you get ahead_, _Follow the advice of a parent or teacher or other adult you respect_, or _Do what you think God or the scripture tells you is right_. Similar to religious centrality, I recoded this variable into a high-low measure of religious identity salience. _Do what would make you feel happy_, _Do what would help you get ahead_, and _Follow the advice of a parent or teacher or other adult you respect_ were collapsed into one category and coded as 0, representing low religious identity salience. _Do what you think God or scripture tells you is right_ is coded as 1, representing high religious identity salience.

Some readers might question the difference between these two variables, asking why one is considered a measure of religious centrality while the other a measure of religious identity salience. On the surface, the difference between them is subtle. However, the cognitive tasks they pose to respondents are different in a crucial way. The centrality measure asks respondents to place a single concept, religion, on a scale of importance. On the other hand, the salience measure is more of a ranking question, asking respondents to weigh the importance of religion against other competing systems of moral authority. In selecting the religious option (Do what you think God or scripture tells you is right), the respondent indicates that religion is not just important, but *more important that any alternatives presented*.[2] Again, as identity salience is the readiness or propensity to act on an identity in a specific situation (Ervin and Stryker 2001:34), in choosing religion as the moral authority to which they would look in a situation in which they are unsure of what to do, adolescents were indicating their propensity to act on their identity as a religious person by consulting religious authority.

Religious controls. Because other dimensions of religiosity such as religious service attendance and religious affiliation are related to religious centrality and identity salience, I control for these other dimensions to try to better isolate features of religious centrality and identity salience which are independent of public religious involvement and specific religious ideologies. Because I am interested in controlling for how attendance and affiliation at Wave 1 relate to subsequent behaviors at Wave 2, I use measures of religious service attendance and affiliation from Wave 1.

I measure rate of religious service attendance by creating a variable that is based on two questions. Respondents who said they attended religious services more than once or twice a year, not "counting weddings, baptisms, and funerals," were asked how often they attended religious services. The choices were: *less than once or twice a year*, *a few times a year*, *many*

16

times a year, *once a month*, *2-3 times a month*, *once a week*, or *more than once a week*.

Respondents who said they never attended religious services were coded as *less than once or*

twice a year. I then collapsed these responses and created the final variable with categories of

many times a year or less, *between once and 2-3 times a month*, and *once a week or more*.

   I measure religious affiliation with a variable created by the principal investigators of the

NSYR. Wanting to create interpretable religion variables, the NSYR PIs condensed the 55

possible affiliations into nine major religious types similar to the categorizing model used in

Steensland et al. (2000). The nine categories are: *Conservative Protestant, Mainline Protestant*,

Black Protestant, *Catholic*, *Jew*, *Latter Day Saints*, *No religion*, *Other religion*, and *Indeterminate*.

   Demographic controls. A number of demographic variables from Wave 1 are included in

each model following Regnerus and Smith's (2005) assessment of spurious factors that could be

inflating estimates of the effect of religiosity on various outcomes. Age and race are self-

reported variables, while gender was obtained from the parent interviewed. Age categories

range from 13 to 17 years old in the first wave to 16 to 20 years old in the second wave. Race is

accounted for using a recoded variable that collapses the 15 categories of the original question

into 4 categories: *White*, *Black*, *Hispanic*, and *Other*. Gender is a dichotomous variable; 0 equals

male and 1 equals female.

   I include three family measures. The first is a measure of parent education: 1 signifies

less than high school, 2 is *some college*, 3 is *a college degree*, and 4 is *a graduate or professional*

degree. The highest degree attained by the mother or the father was used to code the

respondent. The second family measure is whether or not the family is intact; in other words, if

the respondent has experienced the breakup of a marriage or marriage-like relationship of

adults in the household where the respondent was residing at the time. An intact family is coded

0 and a non-intact family is coded 1. The final family variable is a self-reported measure of total

household income before taxes, with categories as follows: *less than 40,000, from 40,000 to 60,000, from 60,000 to 80,000*, and *more than 80,000.*

Finally, a variable is included to account for effects of living in the U.S. south. This variable was created using data from Wave 1. Respondents not living in the south were coded as 0, and those living in the south were coded as 1.

Dependent Variables: Adolescent Behaviors

I examine the intersections between religious centrality and religious identity salience in relation to four adolescent behaviors: 1) having casual sex, 2) frequency of drinking alcohol, 3) frequency of formal volunteering, and 4) donating money.

I assess respondents' sexual behavior through a constructed dichotomous variable of whether or not the respondent had ever had sex in a casual relationship. While sexual behavior is typically measured through whether or not the respondent had ever had sexual intercourse, I could not use it as a measure in this analysis and still keep in all of the respondents who already had had sex at Wave 1. In using whether or not a respondent had ever had sex in a casual relationship, I allow respondents who already had had sex at Wave 1 to remain in the sample. I coded respondents who reported having ever had sex in a casual relationship as 1 and those who had never had sex or who had had sex in a serious relationship are coded as 0.

In regards to frequency of drinking alcohol, respondents were asked how often, if at all, they ever drank alcohol, not including at religious services. The original response categories were *almost every day*, *a few times a week*, *about once a week*, *a few times a month*, *about once a month*, *a few times a year*, and *never*. These answer choices were condensed into three categories: *never*, *between a few times a year and about once a month*, and *a few times a month or more*.

I assess volunteering using a question that asked how often a teen has done organized

volunteer work or community service in the last year. Responses were *never*, *a few times*,

occasionally, and *regularly*. I condensed these four categories into three: *never*, *a few times*, and

occasionally/regularly.

To measure whether or not a respondent had ever donated money, respondents were

asked a yes/no question of whether or not they had given twenty dollars or more of their own

money to any organization or cause in the past year. I coded *no* as 0 and *yes* as 1.

Analytic Strategy

First, to assess the bivariate relationship between religious centrality and religious

identity salience (RQ1), I present a crosstab of the two variables.

I answer RQs 2, 3, and 4 by estimating three logistic or multinomial logistic regressions

for four different adolescent behaviors, respectively. All models control for the religious and

demographic control variables described above, of which the descriptive statistics can be found

in Table 9 in the Appendix. I estimate these models with lagged dependent variables using

Waves 1 and 2 of the NSYR. I incorporate lagged dependent variables to address some of the

potential causality issues between religious centrality and religious identity salience and

adolescent behavior.[3] I utilize logistic regression to analyze having casual sex and donating

money as dependent variables; I likewise employ multinomial regression to analyze drinking

alcohol and volunteering. I use multinomial logistic regression for these two behaviors because a

test of the proportional odds assumption failed using a regular ordinal logistic model.

Models 1 and 2 in Tables 2 and 3 show the relationships between religious centrality

(Model 1) and religious identity salience (Model 2) with each of the four behaviors, net of the

other religious and demographic control variables. These models give an initial picture of how

religious centrality and religious salience each are related to behavior in isolation, and are

representative of previous studies that did not have both variables to utilize in analysis. In addition, Models 1 and 2 set up Model 3 in Tables 2 and 3, in which I put both variables in the logistic or multinomial logistic regression together to assess their relationship to each other and to each behavior in question.

To assess RQ2, I will look to the coefficient size and statistical significance of religious centrality and religious identity salience in Model 3. Should religious centrality and religious identity salience have distinct empirical effects on behavior, both coefficients should be statistically significant. In addition, I run a Wald test to determine if the difference between the two variables in Model 3 is statistically significant.

In answering RQ3, I utilize the KHB-method for comparing logistic regression coefficients between same-sample nested models (Karlson, Holm, and Breen 2012). Had religious centrality and religious identity salience as variables lent themselves to linear models, assessing the confounding influence of religious identity salience on the relationship between religious centrality and the outcome of interest would be rather simple. I could compare the coefficient sizes of religious centrality from a model where centrality was included by itself (a reduced model) to one where centrality and identity salience were included together (a full model); the change in the centrality coefficient size from the reduced to full model could be attributed to the theorized indirect effect of centrality through identity salience on the outcome of interest. However, in logistic and multinomial logistic regression models, the error variance of the model overall is fixed. As a result, coefficients of the same variable across nested models are affected not just by the added independent variables, but by the error variance constraint as well. This means the coefficients cannot be compared across nested models without taking the constraint into account. Rescaling of coefficients is required to solve this problem. Karlson et al. (2012:42) state the consequences of not rescaling plainly: "Including a control variable, z, in a logit or

20

probit model will alter the coefficient of *x* whether or not *z* is correlated with *x*...Consequently, logit or probit coefficients from different nested models are not measured on the same scale and are therefore not directly comparable."

Applied to RQ3, this means that the change in coefficient size of religious centrality from a reduced to full model is the result of both the theorized confounding influence of identity salience and the need for rescaling of the full model. Using the Karlson, Holm, and Breen (KHB) method, I address this problem by regressing identity salience on centrality, creating an identity salience variable of the residuals from this regression, and then substituting this new residualized identity salience variable into the full model to create a residualized full model, which I call Model 1 Residualized (M1R). Using a residualized version of identity salience in the full model leaves a centrality coefficient that is independent of identity salience and thus imitates the centrality coefficient in the reduced model where identity salience was not present. The difference between the two centrality coefficients in the full model (Model 3) and the residualized full model (M1R) can be directly compared in terms of their size and tested for statistical significance. If religious identity salience does mediate the relationship between religious centrality and behavior, the religious centrality coefficient size in M1R should decrease by a statistically significant amount with the addition of religious identity salience in Model 3. For more information on the formula used to conduct this test and this method overall, see Karlson et al. (2012).

I will answer RQ4 by comparing changes of predicted probability of behavior from low to high religious centrality from Model 1 Residualized (M1R) to Model 3 in Tables 2 and 3. If not empirically disentangling religious centrality from religious identity salience has influenced the estimates of the impact of religious centrality on behavior, the differences in predicted

probabilities from low to high religious centrality should change substantially from M1R to Model 3.

Finally, I answer RQ5 by creating dummy variables representing the four categories created when crossing the dichotomous variables of religious centrality and religious identity salience: Low centrality – Low salience (LC – LS), Low centrality – High salience (LC – HS), High centrality – Low salience (HC – LS), and High centrality – High salience (HC – HS). I run a logistic or multinomial logistic regression model (Model 4) on each behavior using these variables as the primary predictors.[4] Omitting the HC – LS category as the reference category will allow me to see the joint effect on behavior of having both high centrality and high religious identity salience in comparison to having high centrality but low religious identity salience. If the behavioral outcomes of the two groups are substantially different, the coefficient for the HC – HS variable should be statistically significant. Additionally, I run a joint test of significance on Model 4 to confirm that the overall interaction between these three variables, representing the interaction between religious centrality and religious identity salience, is statistically significant.

NOTES

[1] More evidence that this measure is standard and comparable to other measures is its relationship to a similar question asked in another large, longitudinal study of adolescents, the National Longitudinal Study of Adolescent Health. This study measures religious centrality by asking, "How important is religion to you: very important, fairly important, fairly unimportant, or not important at all." Roughly 50% of respondents reported that religion was *very important* to them, with the other 50% citing religion as *fairly important* to *not important at all*. Assuming that the *fairly important* category in AddHealth is capturing the same group as the *somewhat important* category in the NSYR and that AddHealth's *very important* category captures the *very* and *extremely important* NSYR categories, we see that 50% of respondents in the NSYR also report a high level of religious importance.

daily life – importance of faith – w1	Freq.	Percent	Cum.
Not important at all	155	6.76	6.76
Not very important	258	11.26	18.02
Somewhat important	708	30.89	48.91
Very important	705	30.76	79.67
Extremely important	466	20.33	100.00
Total	2,292	100.00	

Frequency Distribution		
Cells contain: -**Column percent** -N of cases		**Distribution**
	1: Very important	**50.1** 2,812
	2: Fairly important	**39.5** 2,218
H1RE4	3: Fairly unimportant	**7.0** 391
	4: Not important at all	**3.4** 193
	COL TOTAL	**100.0** 5,614

[2] While other research has utilized this exact question (Vaisey 2009) or a close variation (Bellah et al. 1989; Hunter 2000) to operationalize moral authority, this usage does not discount its legitimacy as a measure of religious identity salience. Substantively, the question does ask about religion as a moral authority in comparison to alternative moral authorities. However, the cognitive process of ranking religion in comparison to these alternative moral authorities is what makes this question also a measure of religious identity salience. Identity salience is defined as the readiness or propensity to act on an identity in a specific situation (Ervin and Stryker

2001**:**34). In choosing religion as the moral authority to which they would look in a situation in which they are unsure, adolescents are indicating their propensity to act on their identity as a religious person by consulting religious authority.

[3] For example, I posit that that a respondent's religious identity salience influences his/her frequency of drinking alcohol. However, the converse is also possible: drinking alcohol frequently could cause a respondent to perceive that her religious identity is less salient in order to reduce the emotionally painful feeling of dissonance between prevailing religious moral culture and actual behavior. Therefore, lower levels of religious identity salience at Wave 1 may be a function of having drunk alcohol frequently before Wave 1. I control for the relationship between pre-Wave 1 frequency of drinking and religious identity salience by including a lagged dependent variable for frequency of drinking. This method allows me to come closer to isolating the effect of religious identity salience on the change in drinking behavior from Wave 1 to Wave 2.

[4] Technically, Model 4 is an interaction model. It could be run differently by including in the model an interaction term created by multiplying religious centrality and religious identity salience together. However, this presentation of the interaction shows only whether or not the interaction between these variables is significant above and beyond a linear effect. This type of interaction model would not show the specific parts of the interaction (the comparison between the HC – LS and HC – HS groups) that are of theoretical interest.

IV. Results

The presentation of results follows the order of the research questions, which together comprise a systematic exploration of the empirical intersections of religious centrality and religious identity salience. Descriptive statistics on each variable used in the following analyses can be found in Tables 8 and 9 in the Appendix. These analyses show whether religious centrality and religious identity salience are empirically distinct (RQ1) and have empirically distinct effects on various adolescent behaviors (RQ2). Additionally, these analyses determine whether scholars have over or underestimated the substantive association between religious centrality and behavior by not accounting for religious identity salience (RQ3), and whether religious centrality is at least partially mediated by religious identity salience, as theory would suggest (RQ4). Finally, I present analyses that compare the behavioral outcomes of adolescents who have high religious centrality but low religious identity salience to those who have high religious centrality and high religious identity salience (RQ5).

Table 1 displays a crosstab of religious centrality and religious identity salience. In answer to RQ1, adolescents who have high religious centrality do not typically also have high religious identity salience. While these concepts are highly correlated with a statistically significant chi-square test of 30.14, approximately 64% of those who say that religion is very or extremely important in their lives (high religious centrality) do not also say they look to religion over other sources of moral authority when unsure of what to do in a given situation (high religious identity salience). Thus, religious centrality and religious identity salience are undeniably distinct from each other empirically. Were religious centrality and religious identity salience not empirically distinct, a majority of adolescents who say that religion is very or

extremely important in their lives also would say they look to religion over other sources of moral authority when unsure of what to do in a given situation. In other words, the highest cell counts in Table 1 would be on the diagonal from upper left to lower right, not within the first column.

TABLE 1 – Crosstab of Religious Centrality and Religious Identity Salience

| | | Religious Identity Salience | | |
		Low	High	Total
Religious Centrality	Low	1,060	61	1,121
		94.65%	5.44%	100%
	High	757	414	1,171
		64.65%	35.35%	100%
	χ^2 = 30.14***			N = 2,292

Tables 2 and 3 present logistic (Table 2) and multinomial logistic (Table 3) regression models on four different adolescent behaviors: having casual sex, frequency of drinking alcohol, volunteering, and donating money. Models 1 and 2 isolate the relationships between behavior and religious centrality and religious identity salience, respectively, net of the additional religious and demographic controls. These models show that for likelihood of having casual sex and drinking alcohol sometimes or frequently, religious centrality and religious identity salience have negative, significant associations – meaning that adolescents who have high religious centrality or high religious identity salience are significantly less likely to participate in these activities in comparison to their peers who have low religious centrality or low religious identity salience. However, such a consistent pattern does not emerge for formally volunteering and donating money. In regards to donating money, both high religious centrality and high religious identity salience are positively and significantly associated with donating $20 or more of one's own money in the past six months. Yet while high religious centrality significantly increases the likelihood that an adolescent will volunteer, high religious identity salience does not have an effect at all. In sum, Models 1 and 2 from Tables 2 and 3 indicate that when accounted for in

26

isolation of each other, religious centrality and religious identity salience are significantly

associated with the likelihood of having casual sex, drinking alcohol, and donating money.

Volunteering behavior does not follow this pattern, as only religious centrality is related to

frequency of giving time in volunteering activities.

TABLE 2[a] – Logit Regression Coefficients on Behavior

PANEL A - Casual Sex

	Model 1	Model 2	M1R[b]	Model 3
Centrality	-0.433***		-0.451***	-0.303*
	(0.123)		(0.123)	(0.126)
Religious Identity Salience		-0.784***	-0.699***	-0.699***
		(0.159)	(0.163)	(0.163)
Constant	-5.834***	-5.849***	-5.859***	-5.879***
	(0.776)	(0.780)	(0.781)	(0.781)

N = 2,292

PANEL B - Donating Money

	Model 1	Model 2	M1R	Model 3
Centrality	0.366***		0.345***	0.247*
	(0.105)		(0.105)	(0.108)
Religious Identity Salience		0.622***	0.556***	0.556***
		(0.118)	(0.122)	(0.122)
Constant	-3.790***	-3.856***	-3.815***	-3.884***
	(0.640)	(0.642)	(0.642)	(0.643)

N = 2,292

Notes: [a] All models include: 1) lagged dependent variables of the outcome of
interest from Wave 1 of the NSYR, and 2) a series of religious and
demographic controls which can be found in Table 9 of the Appendix
[b] M1R: Model 1 Residualized using the KHB method
Standard errors in parentheses
***p<0.001, ** p<0.01, * p<0.05

To answer RQ2, whether religious centrality and religious identity salience have distinct

empirical relationships with behavior, I look to Model 3 across all four behaviors in Tables 2 and

3. Model 3 simultaneously includes high religious centrality and high religious identity salience

TABLE 3[a] – Multinomial Logistic Regression Coefficients on Behavior

PANEL A – Drinking Alcohol

	Drinking Sometimes[b]/Never				Drinking Regularly[c]/Never			
	Model 1	**Model 2**	**M1R[d]**	**Model 3**	**Model 1**	**Model 2**	**M1R**	**Model 3**
Centrality	-0.498***		-0.489**	-0.430**	-0.630***		-0.628***	-0.499***
	(0.130)		(0.130)	(0.134)	(0.139)		(0.139)	(0.143)
Religious Identity Salience		-0.393**	-0.289*	-0.289*		-0.766***	-0.638***	-0.638***
		(0.137)	(0.141)	(0.141)		(0.161)	(0.165)	(0.165)
Constant	-1.015	-0.992	-1.085	-1.096	-5.414***	-5.390***	-5.484***	-5.509***
	(0.793)	(0.792)	(0.794)	(0.794)	(0.849)	(0.850)	(0.853)	(0.853)

N = 2,292

PANEL B – Volunteering

	Volunteering A Few Times/Never				Volunteering Occasionally or Regularly/Never			
	Model 1	**Model 2**	**M1R**	**Model 3**	**Model 1**	**Model 2**	**M1R**	**Model 3**
Centrality	0.198		0.200	0.137	0.441***		0.445***	0.410**
	(0.125)		(0.125)	(0.129)	(0.128)		(0.128)	(0.132)
Religious Identity Salience		0.333*	0.294	0.294		0.274	0.162	0.162
		(0.148)	(0.153)	(0.153)		(0.149)	(0.154)	(0.154)
Constant	3.330***	3.322***	3.334***	3.304***	1.917*	1.932*	1.919*	1.903*
	(0.755)	(0.755)	(0.755)	(0.755)	(0.774)	(0.772)	(0.774)	(0.774)

N = 2,292

Notes: [a] All models include: 1) lagged dependent variables of the outcome of interest from Wave 1 of the NSYR, and 2) a series of religious and demographic controls which can be found in Table 9 of the Appendix
[b] Between a Few Times a Year and about Once a Month
[c] Drinking A Few Times a Month or More
[d] M1R: Model 1 Residualized using the KHB method
Standard errors in parentheses
***p<0.001, ** p<0.01, * p<0.05

to see the relationship to behavior of each variable, controlling for the other and the additional religious and demographic variables. Should centrality and salience not be distinctly related to behavior, either one or both of their coefficients in Model 3 would be statistically insignificant. This is not the case. Rather, for having casual sex, drinking alcohol frequently or sometimes, and donating money, high religious centrality and high religious identity salience have significant, empirically distinct associations with behavior with consistent directions of influence across the three outcomes. In addition, the direction of the relationship with each behavior is consistent with the direction demonstrated in Models 1 and 2, negative for having casual sex and drinking alcohol and positive for donating money. I present Wald tests for the differences between the coefficient sizes of religious centrality and religious identity salience in Model 3 for each behavior in Panel A of Table 4. These tests show that the differences in the two coefficient sizes are statistically significant, meaning that religious centrality and religious identity salience are related to behavior at least somewhat independently of each other. Again, of note is that volunteering does not follow this pattern. Rather, neither high religious centrality nor high religious identity salience are significantly related to volunteering a few times a year, and only high religious centrality is significantly and positively associated with volunteering occasionally or regularly. Religious identity salience has no association with volunteering occasionally or regularly (this is to be expected as religious identity salience was not significant for this behavior in Model 2).

While Model 3 shows that religious centrality and religious identity salience have empirically distinct relationships with some behaviors, this does not mean that their relationships are not somewhat shared with each other. Religious identity salience could mediate, at least partially, the relationship between religious centrality and behavior. To test this idea (RQ3), I look to the change in the coefficient size of religious centrality from M1R (which imitates the centrality coefficient in Model 1 using the KHB method) to Model 3.

Panel B of Table 4 shows that for casual sex, drinking, and donating money, the coefficient size of religious centrality dropped by a statistically significant amount when religious identity salience was added into the model. The coefficient size of religious centrality decreased by 32.8% for casual sex, 20.6% for drinking regularly, and 32.3% for donating money; it did not change significantly in relation to volunteering behavior. Thus, while religious centrality and religious identity salience may have statistically distinct relationships with behavior (as determined by RQ2), they are correlated such that religious centrality partially operates through religious identity salience in influencing the likelihood of having casual sex, drinking regularly, or donating money.

TABLE 4 – Statistical Tests Comparing Coefficient Sizes within Model 3 and between M1R and Model 3

Dependent Variables	Panel A Difference between centrality and religious identity salience coefficients in Model 3	Panel B Difference between centrality coefficients from M1R to Model 3
Casual Sex	Difference = 0.396 χ^2 = 30.14***	Difference = -.148 (0.036) or 32.8% z = -4.06***
Donating Money	Difference = 0.309 χ^2 = 32.83***	Difference = .118 (0.027) or 32.3% z = 4.29***
Drinking	Sometimes/Never: Difference = 0.141 χ^2 = 18.51*** Regularly/Never: Difference = 0.139 χ^2 = 34.91***	Sometimes/Never: Difference = -.059 (0.029) or 12.0% z = 1.14* Regularly/Never: Difference = -.129 (0.035) or 20.6% z = 1.26***
Volunteering	A Few Times/Never: Difference = 0.157 χ^2 = 6.18* Occasionally or Regularly/Never: Difference = 0.248 χ^2 = 13.00**	A Few Times/Never: Difference = 0.063 (0.125) or 31.6% z = 1.90 Occasionally or Regularly/Never: Difference = 0.035 (0.128) or 7.83% z = 1.05

Notes: Standard errors in parentheses
***$p<0.001$, ** $p<0.01$, * $p<0.05$

Given that religious centrality partially is mediated by religious identity salience, has not

disentangling these concepts impacted the assessment by religious scholars of the relationship between

the more commonly used measure of religious centrality and various behaviors (RQ4)? To answer this

question, I present predicted probability changes from low to high religious centrality from M1R to

Model 3 in Table 5. If not disentangling religious centrality from religious identity salience affected the

estimates of the relationship between religious centrality and behavior, the difference in predicted

probabilities from low centrality to high centrality should change from M1R to Model 3. Table 5 shows

that for each behavior, the difference in the likelihood of participating in that behavior due to going

from low to high religious centrality does not change from M1R to Model 3. In sum, not including

religious identity salience in models that look at the relationship between religious centrality and

behavior has not impacted scholars' assessments of the association of religious centrality to various

behaviors in any substantive way.

TABLE 5 – Predicted Probabilities for Likelihood of Engaging in Behavior for Respondents with
Low Religious Centrality (LC) and High Religious Centrality (HC)

	M1R – in percent	Model 3 – in percent
Casual Sex	**LC:** 31.8	**LC:** 30.6
	HC: 24.8	**HC:** 25.9
Donating Money	**LC:** 38.5	**LC:** 39.8
	HC: 46.4	**HC:** 45.1
Drinking Behavior	Sometimes/Never	Sometimes/Never
	LC: 32.2	**LC:** 32.2
	HC: 28.6	**HC:** 28.5
	Regularly/Never	Regularly/Never
	LC: 38.7	**LC:** 37.9
	HC: 32.5	**HC:** 33.4
Volunteering	A Few Times	A Few Times/Never
	LC: 33.2	**LC:** 33.7
	HC: 32.3	**HC:** 31.9
	Occasionally or Regularly//Never	Occasionally or Regularly/Never
	LC: 32.0	**LC:** 32.0
	HC: 38.9	**HC:** 38.9

The final exploration question regarding these two variables is not about how one variable

affects the relationship with behavior of the other, but rather, how they jointly are related to behavior.

Are adolescents who have high religious centrality and religious identity salience more, the same, or less likely to engage in certain behaviors than those who have high religious centrality but low religious identity salience? Table 6 shows the logistic regression coefficients that allow for this comparison. Adolescents who have high religious centrality and high religious identity salience (HC – HS) have significantly different likelihoods of engaging in behavior than adolescents who report high religious

TABLE 6[a] – Logit and Multinomial Logit Regression Coefficients on Behavior by Religious Centrality-Religious Identity Salience Category

	Casual Sex	Donating Money	Drinking		Volunteering	
	Logit		Multinomial Logit			
			Sometimes[b]	Regularly[c]	A Few Times	Occasionally or Regularly
	Model 4	Model 4	Model 4	Model 4	Model 4	Model 4
LC - LS	-0.0149	-0.206+	0.421**	0.505***	-0.129	-0.427**
	(0.331)	(0.114)	(0.141)	(.150)	(0.137)	(0.140)
LC - HS	0.247+	0.0644	0.186	-0.185	0.119	-0.126
	(0.131)	(0.286)	(0.333)	(0.389)	(0.340)	(0.356)
HC - HS	-0.827***	0.621***	-0.304	-0.623***	0.304	0.135
	(0.186)	(0.135)	(0.156)	(0.183)	(0.172)	(0.171)
Constant	-6.163***	-3.646***	-1.523	-6.011***	3.44***	2.32**
	(0.794)	(0.649)	(0.811)	(0.872)	(0.765)	(0.784)

N = 2,292

Notes: [a] All models include: 1) lagged dependent variables of the outcome of interest from Wave 1 of the NSYR, and 2) a series of religious and demographic controls which can be found in Table 9 of the Appendix
[b] Between a Few Times a Year and about Once a Month
[c] Drinking A Few Times a Month or More
[d] LC = Low Centrality, LS = Low Salience, HC = High Centrality, HS = High Salience
[e] HC-LS is the reference category
Standard errors in parentheses
***p<0.001, ** p<0.01, * p<0.05, + p<0.1

Model 4 joint tests of significance of LC-LS, LC-HS, and HC-HS
Casual Sex: χ2 = 31.39***
Donating Money: χ2 = 33.96***
Drinking:
  Sometimes: χ2 = 18.58***
  Regularly: χ2 = 34.54***
Volunteering:
  A Few Times: χ2 = 6.12
Regularly: χ2 = 13.26**

centrality but low religious identity salience (HC – LS). HC – HS adolescents are significantly less likely to

have casual sex and drink alcohol regularly, and more likely to donate money than their HC – LS peers.

Specifically, HC – HS adolescents have a 17% likelihood of having casual sex, versus their HC – LS peers

who have a 28.26% likelihood of the same thing. In addition, HC – HS adolescents are 7.6% less likely to

drink alcohol regularly and approximately 14% more likely to donate money than their HC – LS peers.

However, for volunteering, there is again a different pattern in comparison to the other behaviors. HC –

HS adolescents are just as likely as HC – LS adolescents to volunteer (39% in comparison to 38%,

respectively).

TABLE 7 – Predicted Probabilities for Likelihood of Engaging in Behavior by Religious Centrality-Religious Identity Salience Category

	Casual Sex	**Donating Money**	**Drinking**		**Volunteering**	
			Sometimes[a]	Regularly[b]	A Few Times	Occasionally or Regularly
(LC – LS)	32.33%	37.56%	32.38%	39.65%	32.90%	31.82%
(LC – HS)	28.03%	43.47%	34.60%	29.83%	34.90%	35.14%
(HC – LS)	28.26%	42.04%	28.95%	34.80%	30.78%	39.28%
(HC – HS)	17.03%	56.03%	28.30%	27.12%	35.66%	38.33%

Notes: [a] Between a Few Times a Year and about Once a Month
[b] Drinking A Few Times a Month or More

V. Discussion

Studies linking religious identity to behavioral outcomes historically have operationalized the strength of religious identity in two ways: 1) through general importance questions that measure the centrality of religion to a person's identity, and 2) through questions that ask for behavioral reports of activities associated with a religious identity. I have taken research in the identity theory tradition on psychological centrality and identity salience and placed it in a religious context to explore how these two measures of religious identity are empirically and substantively related, and how their relationship affects our assessments of the association between religious identity and behavior.

I posed five research questions in this paper, which together, comprised a thorough exploration of these two concepts across four different behaviors. I found that: 1) although the statistical correlation between the two concepts is strong, substantively, people who have high religious centrality do not overwhelmingly also have high religious identity salience; 2) religious centrality and religious identity salience have empirically distinct relationships with different behaviors; 3) religious centrality partially operates through religious identity salience in influencing the likelihood of some behaviors; 4) not accounting for religious identity salience in statistical models looking at the relationship between religious centrality and behavior has not impacted our assessments of the association between centrality and behavior in any substantive way; and 5) religious centrality and religious identity salience interact, such that adolescents who feel religion is an important identity and have a high likelihood of acting on it are more or less likely to participate in certain behaviors than adolescents who have only high religious centrality or high religious identity salience.

These findings bring forward a number of questions, as well as suggest a number of theoretical implications for future study of religious identity and behavior. First, following RQ1, what is the disconnect between religious centrality and religious identity salience such that approximately 64% of adolescents who have high religious centrality do not also have high religious identity salience? There are two approaches to answering this question. One is from a purely theoretical perspective, considering the nature of religious centrality and religious identity salience as concepts. Remember that an identity's centrality stems primarily from an individual's values and interests, while an identity's salience is more a function of the commitment to the social relationships from which the identity emerged. In the case of the 64% of adolescents with high religious centrality but low religious identity salience, theory would suggest that they value religion and have a vested interest in it, but that the social relationships underlying their other identities are more important than their religious social attachments. For example, one easily can imagine a teen who attends church weekly and highly values religion, but doesn't have any close peer relationships in her church. Her closest relationships are with friends who don't share her same religion or aren't religious at all. Thus, she looks to them first, rather than religion, when she is unsure of what to do.

While this straightforward explanation of the disconnect between religious centrality and religious identity salience is plausible, it also is rather simplistic. It suggests a relationship between religious centrality and religious identity salience consonant with the assumption that centrality operates through salience in influencing behavior, which I have shown with RQ3 is only partially true. In other words, the approach above implies that adolescents with low religious identity salience are not influenced by religious scripts at all.

However, Model 3 in Tables 2 and 3 indicate otherwise. Model 3 shows that religious centrality is negatively related to risky behavioral outcomes like having casual sex and drinking

35

net of the effect of religious identity salience. Said differently, highly valuing religion is related to behavioral outcomes in a way other than by increasing an adolescent's likelihood of looking to religion when unsure of what to do. So how does religious centrality relate to behavior other than by increasing the likelihood of acting upon religious belief?

A different approach, stemming from work on the relationship between cultural institutions, such as religion, and behavior, provides another, more complex explanation (DiMaggio 1997; Vaisey 2009; Read and Eagle 2011). A recent study by Vaisey (2009:1704) argues that much of the influence of cultural beliefs (which manifest themselves in identity) occurs at the subconscious level and that post-hoc reasoning for why an individual acted the way she did often can be self-contradictory. He writes, "American teenagers seem to be profoundly influenced by cultural forces in ways that they are largely unaware of and unable to articulate but that nevertheless shape their moral judgments and choices." Practically, this means that a teen may not say that she looks to religion when unsure of what to do, but nonetheless may be "profoundly influenced" at the subconscious level by her religious identity, especially if she has high religious centrality.[5]

Read and Eagle (2011:117), drawing on Stryker and Burke (2000) and Wuthnow and Lewis (2008), discuss the interaction of multiple identities through the framework of intersecting identities – "the idea that individuals possess multiple, competing group identities that shape their…behaviors." Their essential argument is that religion is just one of many identities that individuals may have that can interact to produce outcomes seemingly in contradiction with any one of the individual identities in isolation. What identities interact depends on the cultural context "cues" surrounding the behavior; different contexts cue different identities, making some momentarily more relevant than others (DiMaggio 1997; Stryker and Burke 2000). DiMaggio (1997:274) writes: "[a]lthough a few schemata may be chronically available, more

often they are primed or activated by an external stimulus or frame." Identities that are more important to an individual are more central to an individual's understanding of self and thus often are more "chronically available" than identities that aren't important (McCall and Simmons 1978; DiMaggio 1997). I posit that adolescents with high religious centrality but low religious identity salience still are likely to experience activation of their religious identity in a variety of contexts, even if that activation doesn't mean that they are likely to act upon it in such a way that their behavior lines up completely with religious belief. The simple fact that the religious identity becomes relevant creates the potential for influential interaction with other, more salient identities cued in a given situation.

An example will help clarify this idea. The morality of premarital sex in adolescence is a widely contentious topic, often popularly accepted but religiously condemned. Consider the case of a teenage girl who has important (i.e. highly *central*) identities as a Catholic, a girlfriend, and an adolescent whose peers are all having sex. In addition, her likelihood of relying on religion as a moral authority is low, because most of her peers aren't Catholic. She really thinks that she will feel closer to her boyfriend if she has sex with him, but she's a little unsure. After giving it thought and discussing it with her friends, she decides she will have sex with her boyfriend when she is sure she's going to marry him. On the surface, it appears that her religious identity had no relationship to her behavior at all, for if it did, she would not have decided to have sex. However, she doesn't just decide to have sex, she decides to have it when she feels like she is ready for marriage, a decision which arguably results from the interaction of her identity as a girlfriend who doesn't want to wait until marriage to have sex and as a Catholic whose belief system tells her waiting for marriage is the right thing to do. In other words, although she didn't exhibit high religious salience (strictly follow her religion's belief system), her highly central religious identity influenced her decision.

In sum, adolescents who have high religious centrality but low religious identity salience can be explained in two ways. The first way abstracts the relationship between centrality and salience from behavior, suggesting that HC – LS adolescents have other identities tied to social relationships that are more important to them than the social relationships underlying their religious identities. Thus, if adolescents don't have high religious salience, they are unlikely to act upon prevailing religious beliefs. I argue that this explanation does not present a complete story. Rather, the results here indicate that religious centrality and religious identity salience are related to each other and to behavior in complex ways that are context dependent. If we look at the relationship between religious centrality and religious identity salience in light of actual behavior embedded in cultural contexts, we can see how highly central religious identities can interact with other more salient identities to temper or encourage behavior, even if the religious identity isn't highly salient.

In addition to questions surrounding the disconnect between high religious centrality and low religious identity salience, another question that arises from the results is why high religious salience consistently does not appear to be related to a likelihood of volunteering. Throughout the analyses, volunteering was the one behavior that did not have significant relationships with both religious centrality and religious identity salience. Specifically, high religious identity salience is not related to the likelihood of frequently volunteering independent of religious centrality in Model 2 (Table 3), which sets the stage for it to not be significant in Models 3 (Table 3) or 4 (Table 6). What is it about volunteering such that religious identity salience is not significantly related to it but religious centrality is?

One explanation is that the religious identity salience question used in the NSYR does not measure the aspect of religious identity that most relates to volunteering. Remember, identity salience questions are more behavioral reports than evaluative in nature, and the

behavior that adolescents report for this question is to what moral authority they look when unsure of what to do. I would argue that volunteering is a not behavior that would fall under the category of "unsure of what to do." Even if it did, moral authorities other than religion are not likely to conflict with the generally prevailing religious belief that volunteering one's time is a positive endeavor. The results for the volunteering outcome in Table 3 support this theory. The insignificance of the religious identity salience variable for frequently volunteering across Models 2 and 3 indicates that adolescents who look to religion as a moral authority when unsure of what to do are not significantly more likely to volunteer than adolescents who look to an authority other than religion.

However, this theory – that the religious salience question in the NSYR is not a good measure of how religious identity relates to pro-social behaviors like volunteering – does not hold up for the other pro-social behavior examined here: donating money. Rather, the results for the donating money outcome in Table 3 indicate that adolescents who look to religious moral authority (who have high religious identity salience) are significantly more likely to donate money than their peers who look to an authority other than religion (have low religious identity salience). Why would religious identity salience matter for donating money but not for volunteering?

One idea that seems plausible in theory but is not supported by previous research is that the social relationships which underlie the religious identity are related to the association between religious identity and donating money but not the association between religious identity and volunteering. In other words, having a high percentage of friends who share the same belief system leads an adolescent to be more likely to act on her religious identity (have high religious salience) and donate money. However when it comes to volunteering, having a high percentage of religious friends may lead an adolescent to have high religious salience, but it

does not lead her to be more or less likely to give her time. A potential explanation for this

difference is that adolescents, whether they are religious or not, likely experience

encouragement to volunteer from a number of non-religious avenues (for example, schools who

require volunteering to graduate). As such, adolescents with religious social ties are not

receiving more encouragement to volunteer than their non-religious peers. Again, while this

explanation sounds good in theory, it is not supported by previous research. Studies of adults

have shown that social relationships do matter for encouraging people to volunteer (Wilson and

Musick 1997), and much research has documented the effect of peer relationships on

adolescent behavioral outcomes (for a comprehensive review, see Giordano 2003).

Unfortunately, beyond that posited above, I do not have any further robust explanations

for this question. This inconsistent pattern is one that merits future exploration (potentially

using the NSYR) and points towards the need for more research on how cultural context affects

the enactment of certain identities over others.

NOTES

[5] Vaisey (2009) argues that answers to survey questions reflect the subconscious organization of cognitive schemas (i.e. identities). He compares answering a survey question to picking a criminal out of lineup. Picking a criminal out of a lineup is much easier than trying to describe what the criminal looks like to a sketch artist. The same logic applies to survey questions and to the religious centrality and religious identity salience questions here. Trying to describe how important religion is to you in an open-ended format requires much more conscious effort than trying to identify yourself in a list of multiple choice answers. As such, survey question answers are more reflective of subconscious patterns of thought than answers to interview-like questions. Thus, we can argue that saying that religion is important in your everyday life (having high religious centrality) is indicative of the prominence the religious identity has in the cognitive organization of your mind, in relation to your other identities (see McCall and Simmons 1978).

VI. Conclusion

This analysis and discussion of the relationship between religious centrality and religious identity salience has several important takeaways. First, measures of religious centrality are not sufficient as indirect measures of religious identity salience. How important an individual sees religion does not suitably estimate how likely she is to act on her religious identity. Second, identities are complex cognitive structures, and the theory that religious centrality primarily operates through religious identity salience in relation to behavior is only partially true. Applications of identity salience rhetoric to discussions of the connections between religious centrality and behavior do have not a substantive effect on empirical outcomes testing such connections. However, other factors that could play an important role in the relationship between religious identity and behavior, such as cultural context, get glossed over in the process.

Third and relatedly, context matters. Identity activation is tied to cultural elements in the physical and social environment. The identities that become salient for any given behavior depend on the context surrounding that behavior. Fourth, even though adolescents with only high religious centrality can still be seen to act "religiously," individuals who have both high religious centrality and high religious identity salience are much more likely to enact behavior consonant with prevailing religious beliefs than individuals missing one of these identity components. In other words, those seeking to promote a religious identity among adolescents must not only emphasize the subjective value of being religious in and of itself (having high religious centrality), but also must assist adolescents in cultivating close social ties that affirm the importance of that identity.

Of course, this research is limited by the measures and data available. The largest limitation is the nature of the religious identity salience measure. As discussed earlier, this question asks for a behavioral report only in the context of a situation where the respondent would be "unsure of what to do." Arguably, this measure would be more robust if it included behavioral reports from other scenarios, as has been done by identity theorists (i.e. Stryker and Serpe 1982). Such a question would not only allow for an average measure of religious identity salience across different scenarios, but would contribute to an understanding of how context is related to changes in religious identity salience.

The limitation of the salience question opens up the first avenue for future work. When possible, surveys that contain a unit of questions on religion should include better developed measures of identity salience that allow religion to be compared to other potentially salient identities across a number of contexts. While these questions do take up considerable space on surveys, research on religious identity – and how religion as a cultural element relates to behavior – would benefit greatly from such inclusion. This research also points to the fruitfulness of continued study (following Read and Eagle 2011) of how religious identity interacts with other identities in a given context. How do these other identities mediate the relationship between religious identity and behavior and vice versa? In addition, how does the social context of a behavior, the other people in a situation who share or don't share the religious identity, influence the enactment of that identity based on the strength of their relationship to that particular person? These questions indicate a need for more work on how the nature of religious social ties impacts the enactment of religious identity. Future research could do comparative work on the enactment of religious identity by individuals who are embedded in close worship communities versus those who are more isolated in their religious practices.

Finally, scholars also would do well to look at the relationship between religious

centrality and religious identity salience among adults. As stated earlier, adolescence is a time

when identities are shifting as teens decide who they want to be and what is important to them.

A religious identity is more likely to be entrenched as either important or unimportant in adults.

Thus, the connection between religious centrality and religious identity salience could be

stronger in an adult population where the competition for influence from other competing

identities isn't likely to be as strong.

TABLE 8 – Descriptive Statistics of Key Variables

Variables	Percent
Key Independent	
Religious Centrality (How important is religion in your daily life?)	
'Not important at all' to 'Somewhat important'	.49
'Very important' to 'Extremely important'	.51
Religious Identity Salience	.21
Adolescent Behaviors	
Ever had sex in a casual relationship	.28
How often drinks alcohol	
Never	.34
B/t a few times a year and about once a month	.30
B/t a few times a month and more than once a week	.36
Has given away $20 of *own* money in the past year to an organization	.42
How much has done organized volunteer work in the past year	
Never	.32
A few times	.33
Occasionally/Regularly	.35
Lagged Dependent Variables from NSYR Wave 1 – Adolescent Behaviors	
Had sex in wave 1	.19
How often drinks alcohol	
Never	.62
B/t a few times a year and about once a month	.26
B/t a few times a month and more than once a week	.12
Has given away $20 of *own* money in the past year to an organization	.40
How much has done organized volunteer work in the past year	
Never	.32
A few times	.35
Occasionally/Regularly	.33
N = 2,292	

TABLE 9 – Descriptive Statistics of Religious and Demographic Controls

Variables	Percent
Religious Controls	
Attendance	
Many times a year or less	.39
Between once and 2-3 times a month	.20
Once a week or more	.41
Religious tradition	
Not religious	.11
Conservative Protestant	.33
Mainline Protestant	.12
Black Protestant	.11
Catholic	.24
Jewish	.02
Latter Day Saints	.03
Other religion	.03
Indeterminate	.02
Demographic Controls	
Female	.51
Intact family structure	.64
Lives in the South	.42
Race	
White	.70
African American	.16
Hispanic	.09
Other	.05
Household Income	
Refused to answer	.05
Less than 40k	.31
40-60k	.25
60-80k	.16
More than 80k	.23
Parental education level	
Less than high school	.04
High school degree	.17
Some college	.26
College degree	.36
Graduate/Professional	.17

	Mean	S.D.	Range
Age – wave 1	15	1.38	13-17
Age – wave 2	17.72	1.36	16-20

N= 2,292

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