

# Faith Pinnacle Moments: Stress, Miraculous Experiences, and Life Satisfaction in Young Adulthood

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*Religious beliefs often persist among unaffiliated young adults, and certain beliefs about God have been shown to support subjective well-being. Yet we know much less about the persistence or psychological impact of religious experiences, specifically miracles from God. I conceive of such experiences as faith pinnacle moments which express and reinvigorate the individual's reciprocal bond with God, frequently occur in response to certain types of stress, and support well-being by solidifying one's sense of that bond. My results show that net of institutional religiosity, young adults who experience stress from traumas are more likely to report miracles. This suggests that these reports often refer to healings or similar interventions. Stress from family breakups, however, is negatively correlated with miracles, presumably since these disruptions damage the bond with God due to the established connection between parental relationships and perceived relationship with God. Finally, miracles are positively correlated with life satisfaction and partially protect against the negative effects of stress on life satisfaction.*

*Key words:* personal religiosity; adolescences; religious experiences; coping; stress; beliefs; life satisfaction; subjective well-being.

Young adulthood in the United States is a critical point of personal and religious transition, during which individuals make choices with long-term consequences for relationships, education, marriage, and child-bearing. Religiosity is closely connected to external stressors and family backgrounds, and family disruptions in particular negatively impact religious involvement (Denton 2012; Ozorak 1989; Petts 2009; Regnerus and Uecker 2006; Sandomirsky and Wilson 1990; Sherkat and Wilson 1995; Stokes and Regnerus 2009; Zhai et al. 2007). On the other hand, various aspects of

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religiosity can also protect against the negative consequences of stress and positively impact subjective well-being in turn (Clements and Ermakova 2012; Krause and Ellison 2003; Krause and Van Tran 1989; Lim and Putnam 2010; Pargament 1997:306; Schieman et al. 2006; Sherkat and Ellison 1999).

Yet most of the studies linking religion, stress, and subjective well-being focus their attention on the social–institutional aspects of religiosity, or at least limit their sample to those who are “religious” in a traditional sense. This is unfortunate because today’s young adults are increasingly creative in how they mix elements of belief and practice, and less likely to be affiliated with religious institutions (Bellah et al. 1996; Pearce and Denton 2011; Regnerus and Uecker 2006; Smith and Snell 2009; Uecker et al. 2007). Religious-based beliefs and interpretations of the world persist in various but not well-understood ways. It is quite possible that religious experiences, as a type of emotion-laden expression and reinvigoration of religious belief, may also be common among the unaffiliated, and may correlate with or protect against the negative effects of stress.

There is also anecdotal evidence that miraculous experiences may function as critical moments enhancing personal religiosity, particularly when they occur in the midst of stressful situations. This is found, for example, in the writings of pious historical figures, such as Malcolm X, Viktor Frankl, or Martin Luther King, Jr., who talk about miraculous experiences in the face of hardship as key touchstones of faith (Frankl 2006[1959]; King and Washington 1986; Wolfe 1997:486–503). Sickness and poverty in Africa and Latin America are similarly cited as reasons for the growth of religiosity—in particular a deeply experiential religiosity—in those areas (Chesnut 1997; Norris and Inglehart 2004). Finally, there is evidence from the United States that in certain cases, hardship and poor family environments can enhance religiosity (Denton 2012; Granqvist 1998, 2003; Kirkpatrick and Shaver 1990). In those cases, positive changes in religiosity tend to occur suddenly, in significant conversions or “faith pinnacle” moments.

In light of these observations, I investigate religious experience as an important but understudied phenomenon among young adults, looking specifically at reports of miracles from God. I argue that such experiences are based in cognitive beliefs about God, but they go a step further, in that they are also concrete experiences of those beliefs. When a person reports a miraculous experience, they are utilizing beliefs about God to interpret external events as miracles rather than accidents or consequences of human action. If one interprets a particular event as a miraculous intervention on their behalf, it is held as confirmation of God’s presence and beneficence. It also seems to indicate that the individual experiences God in terms of a reciprocal bond. Finally, by confirming such a bond and the security of one’s place within it, it can potentially help individuals to transform stressful events into positive ones and thereby support life satisfaction as a component of subjective well-being.

In order to assess the validity of this conceptualization of miraculous experiences as faith pinnacle moments, in this study, I focus on three empirical

questions: (1) Are external stressors in early adolescence associated with reports of miracles in later adolescence and, if so, which types of stress matter more or less than others? (2) Do reports of miracles predict changes in levels of life satisfaction over time? (3) Do reports of miracles moderate the negative effects of stress on life satisfaction?

The study moves research on personal religiosity, stress, and life satisfaction forward by focusing on one under-researched dimension—religious experience—and demonstrating how attention to people’s experiences of God acting on their behalf can get us closer to the latent concept of their perceived and experienced reciprocal bond with God. It also contributes further evidence that the experience of such a bond has important consequences for how individuals respond to stress and subjectively assess their own well-being.

## LITERATURE REVIEW

### *Miraculous Experiences in Young Adulthood*

Over the life course, U.S. young adults illustrate diverse trajectories of religiosity (Denton 2012; Petts 2009). Their religious changes are closely linked to important transitions such as going to college, getting married, and starting families (Regnerus and Uecker 2006; Sandomirsky and Wilson 1990; Sherkat and Ellison 1999; Sherkat and Wilson 1995; Uecker et al. 2007). It is clear, however, that religious beliefs often persist even if institutional commitments decline, giving rise to a religiously based but unorthodox philosophy that Smith and Denton have termed “Moralistic Therapeutic Deism” (Smith and Denton 2005:162–71). This worldview, arguably the norm among U.S. young adults, supports the idea of a beneficent God alongside lukewarm interest in specific religious doctrine or institutions. In the context of the young adult life course phase, therefore, personal spirituality and beliefs about God seem to become loosened from institutional involvement while in many cases remaining important (Bellah et al. 1996).

Yet while many studies have focused on the persistence of religious belief, almost none have focused on the persistence of religious *experience*. Religious experiences more generally—and experiences of miracles specifically—also persist among the unaffiliated *and* have certain characteristics that make them worth analyzing separately from belief in or attitudes about God. When young adults report miracles, they are presumably recalling specific events in which they believe God intervened in some way. I suggest therefore that such experiences function as faith pinnacle moments, orienting the individual in the world in reference to a beneficent God. In such moments, religious schemas are not just cognitively adhered to, but are also *activated* in response to external events. The belief becomes an interpretation, and the interpretation becomes evidence to the individual that God is real and involved. People who experience miracles thus see God and human in a reciprocal interaction (Wikstrom

1987). This attribution both supports an image of the divine as personal, interventionist, and powerful and expresses positive emotion about the quality of one's relationship to this divine entity (Pollner 1989). Whether or not one is involved in organized religion, such emotion-laden perceptions can powerfully influence outcomes and behaviors later in life (Ellison and Levin 1998; Krause and Ellison 2003).

Although rarely measured empirically, such miraculous experiences have conceptual significance in the works of both classical and modern theorists (James 1997 [1902]; Smith 2007; Stark and Maier 2008; Wikstrom 1987). These authors base their theories of religion in what religious people write and say about the centrality of their relationship with God as a personal being, and how they refer to faith pinnacle moments as evidence of God and as key turning points in their lives. As noted earlier, such accounts of God acting on one's behalf figure prominently in the work of religious historical figures. These faith pinnacle moments form the foundation of a "bond" with God, which some argue is a central motivation for why people are religious more generally (Smith 2007).

### *Miraculous Experiences in Response to Stress*

The above conception of miraculous experiences as faith pinnacle moments in which the individual experiences God's intervention in their lives would suggest a positive correlation with external stress. Presumably, miraculous interventions occur when one is in need, and when external stressors threaten one's well-being. However, there is also evidence that the relationship between stress and religiosity is not straightforward, but rather depends upon the type of stress in question as well as the aspect of religiosity under scrutiny. Family disruptions and breakups, and poor parental relationships more generally, have been shown to correlate negatively with religious involvement in later life (Denton 2012; Granqvist 2003; Kirkpatrick 2005; Kirkpatrick and Shaver 1990; Petts 2009; Smith et al. 2011; Stokes and Regnerus 2009; Uecker et al. 2007; Zhai et al. 2007). Yet studies also show that those with insecure parental attachments are more likely to undergo sudden religious conversions as adults (Granqvist 1998, 2003; Kirkpatrick and Shaver 1990). Furthermore, research on coping with trauma, as a different type of stress, suggests that individuals may in fact turn to religion for resources in the wake of such trauma (Calhoun et al. 2000; Pargament 1997).

None of this prior work has looked at the relationship between external stressors of different types and miraculous experience specifically, but from it, we can suggest several hypotheses about the relationship. First, if reports of miraculous experiences are indeed indicative of a two-way, reciprocal bond with God, then the effects of family disruption on miraculous experience may be negative, if the young adults' damaged family relationships are then projected onto their relationship with God. Generally speaking, people do seem to relate to God in ways that are similar to their relationships with parents, which

authors have called “relational correspondence” (Granqvist 1998, 2003; Kirkpatrick 2005; Kirkpatrick and Shaver 1990; Rowatt and Kirkpatrick 2002). We would expect this type of stress, therefore, to alienate young adults from both religious involvement—as has been evidenced in some depth in the studies shown above—and from their personal bond with God.

On the other hand, the association between miraculous experiences and traumas such as illnesses or the death of a family member logically would be positive rather than negative. First, these types of stress are more exogenous to the character of one’s family relationships, and are less likely to negatively affect young adults’ attitudes to their parents and to God in turn. Second, they tend to involve situations that are prime opportunities for perceived miraculous intervention, such as uncertain medical prognoses or unexpected recoveries. Studies have indeed suggested that experiences of healing are powerful motivators of religious commitment, and that at the societal level, religious movements that emphasize spiritual experience and an individual bond with God often interpret sickness and trauma in religious terms (Dilger 2007; Manglos and Trinitapoli 2001; Poloma and Hoelter 1998).

A third type of stress, financial hardship, is also potentially correlated positively with miraculous experience. On a global level, countries with higher levels of poverty tend to exhibit higher levels of religiosity, and this has been explained in terms of the “existential security” that religious belief offers in the face of material insecurity (Gallup 2010; Norris and Inglehart 2004). At the individual level in the United States, beliefs about God’s control over and involvement in everyday life also seem to be more common among those at lower levels of socioeconomic status (Schieman 2010). The relationship may be even stronger when we look at miraculous experience, since again reports of such experiences suggest that there were particular moments in which an intervention such as a job offer or financial assistance was needed, prayed for, and then came about. It is unclear, however, whether the mechanism for this is in fact “material insecurity,” and the need to find existential security in the relationship with God in order to compensate, or rather the pervasiveness of religious belief and the centrality of religious institutions among those groups that also are economically and socially marginalized, particularly African Americans and other minorities (Ellison and Sherkat 1995; Krause 2002; Lincoln 1990).

### ***Miracles, Stress, and Life Satisfaction***

There is now a fairly well-established positive relationship between religiosity and various measures of well-being, as well as evidence that religiosity can protect against the negative effects of stress (Krause 2002; Krause and Ellison 2003; Krause and Van Tran 1989; Lim and Putnam 2010; Pergamot 1997; Stark and Maier 2008). In particular, certain beliefs about God—particularly God’s goodness and control over one’s life—seem to support subjective well-being (Clements and Ermakova 2012; Krause 2004; Krause and Ellison 2003;

Pollner 1989; Schieman et al. 2005, 2010). One such belief studied in some depth is the sense of “divine control,” which is a belief that the good and the bad events of one’s life are in God’s hands and that God exercises a commanding authority over one’s life (Schieman et al. 2010:519). This work has shown that the construct of divine control and other similar beliefs about God’s goodness and involvement are positively associated with some aspects of subjective well-being (Krause 2003, 2004, 2005; Schieman 2008; Schieman et al. 2005, 2006; Stark and Maier 2008).

Yet once again, most of these studies have measured belief rather than experience. While such beliefs are clearly important, I argue that it is possible to believe in a good and involved God without experiencing a strong, reciprocal, and personal bond with that God. The bond itself, as corresponding work in attachment theory argues in relation to parental attachments, is built upon two-way interactions (Beck and MacDonald 2004; Kirkpatrick 2005; Kirkpatrick and Shaver 1990; Rowatt and Kirkpatrick 2002). In short, both parties are agents. Thus, reports of actual events that the respondent interprets as miracles are likely even stronger indicators of the strength of such a bond.

Thus, I hypothesize that stress will correlate significantly with miraculous experience, though I expect these correlations to work differently for various types of stress. I also hypothesize that miraculous experiences will be correlated positively with life satisfaction, and finally that miraculous experiences will moderate the negative effects of stress on life satisfaction. Like prior work cited above, my focus is on the experience of a reciprocal relationship between the individual and God, and how it can protect against the negative impact of traumatic and stressful events. Where this study differs, however, is in its attention to actual reports of God acting in one’s life, in contrast to beliefs about the possibility or potential of such interventions. The rationale for doing so, as implied earlier, is that we can go further in understanding the nature of young adults’ bonds with God by measuring both what they see God doing and what they believe about God. When God *acts*—as perceived and reported by the individual—it takes the bond out of the realm of the abstract or possible and into the realm of the actual, giving it a greater sense of imminence. My assumption is therefore that a strong reciprocal bond with God will be expressed and perpetuated through perceived actions that God takes to express love and care for the individual.

Certainly, it is possible that reports of miracles among the average person are quite different from the sort of faith pinnacle experiences that we often associate with “religious experience.” They may be reported casually, as an indication of a loosely held idea of God as good-natured but distant, and only involved in certain rare moments of stress. If such is the case, however, then I would argue that the data are likely to show that such experiences are common but they have little impact on well-being, especially over time. A perceived intervention from a distant God may have short-term positive effects, but an intervention that solidifies the sense of a close bond with God is more likely to



support well-being in the long term. At this point, however, we know very little about how these experiences may persist among today's young adults, or whether they correlate with stress or well-being. Answering those questions will help to reveal whether reports of miraculous interventions on a survey are indeed significant indicators of a personal bond with God.

## DATA AND METHODS

This study uses the three waves of survey data available from the National Study of Youth and Religion (NSYR).<sup>1</sup> The NSYR survey component is a nationally representative telephone survey of 3,290 English- and Spanish-speaking teenagers between the ages of 13 and 17. The baseline survey was conducted, with the teen respondents and one of their parents, between July 2002 and April 2003, by researchers at the University of North Carolina at Chapel Hill, using a random-digit dial telephone method.<sup>2</sup> The second wave of the NSYR is a re-survey of the wave 1 teen respondents, conducted from June 2005 through November 2005, when the respondents were between the ages of 16 and 21. The wave 3 survey was conducted from September 24, 2007, through April 21, 2008, when respondents were between the ages of 18 and 24. In this article, I use only the data for the 2,185 respondents who participated in all three waves. My analytic sample size is 2,104, after dealing with missing values.<sup>3</sup> Descriptive statistics on the sample are shown in table 1.

Diagnostic analyses comparing NSYR data with 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 nonresponse biases of U.S. teenagers ages 13–17 and their parents living in households (for details, see [Smith and Denton 2005](#)).

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<sup>1</sup>The NSYR, <http://www.youthandreligion.org>, was generously funded by Lilly Endowment Inc., under the direction of Christian Smith, of the Department of Sociology at the University of Notre Dame.

<sup>2</sup>Also included were 80 oversampled Jewish households, which are omitted from this analysis.

<sup>3</sup>Missing values—primarily “refused,” “don’t know,” and “invalid skip” responses—were dealt with using listwise deletion, resulting in minor data loss (3.7 percent of the full panel sample). There were two exceptions to this. The first was for household income, which had a total of 33 “don’t know” and 93 “refused” responses. In order to minimize missing data, I collapsed these responses into a single separate category following other studies using NSYR data (see [Snell 2009](#)). The second was for family breakup, which had 42 “don’t know” responses at wave 3. I recoded these as “0,” on the assumption that family breakups with a significant impact would be unlikely to result in a “don’t know” response. Survey-provided panel weights were used for all analyses.

TABLE 1 Descriptive Statistics for Key Variables

	N	Percent/Mean	SD	Min.	Max.
<i>Dependent variables</i>					
Experienced a miracle (w3)	2,104	39.8%	0.489	0	1
Life satisfaction (w3)	2,104	3.019	1.187	0	4
<i>Independent variables: stress</i>					
Trauma (w3)	2,104	48.2%	0.500	0	1
Family breakups (w3)	2,104	0.550	0.740	0	2
Financial strain (w3)	2,104	26.9%	0.443	0	1
<i>Controls</i>					
Regular religious attendance (w2)	2,104	51.0%	0.500	0	1
Religious friends (w2)	2,104	3.691	1.647	0	5
Belief in miracles (w2)	2,104	2.514	0.685	1	3
Life satisfaction (w2)	2,104	3.036	1.146	0	4
Female (w1)	2,104	51.1%	0.500	0	1
<i>Religious affiliation (w1)</i>					
Evangelical Protestant	687	32.65%			
Mainline Protestant	258	12.26%			
Black Protestant	217	10.31%			
Catholic	516	24.52%			
Other religion	178	8.46%			
No religion	248	11.79%			
<i>Race/ethnicity (w1)</i>					
White/Caucasian	1,470	69.87%			
Black/African American	290	13.78%			
Hispanic/Latino/a	157	7.46%			
Other	187	8.89%			

### Dependent Variables

*Miraculous Experiences.* In this study, I measure miracles using the question, “In the past two years, have you witnessed or experienced what you believe was a miracle from God?” This question was asked of all respondents regardless of whether they identified a religious affiliation or reported a belief in God. Those who refused or answered “don’t know” are removed from the analysis.

*Life Satisfaction.* I choose to use life satisfaction as a general, widely relevant measure of subjective well-being that is less directly dependent on—though of course likely correlated with—psychological constructs like self-esteem or depression. My goal is to focus on the most *subjective* aspects of well-being, since personal experiences of intervention and two-way interaction with God would seem likely to have their most direct impact on such attitudinal measures. Life satisfaction is also measured at both waves 2 and 3, allowing me to use it as an outcome of reporting miracles and as a lagged dependent variable. The questions on this topic are equivalent between the two surveys.



I construct an additive index of life satisfaction based on responses to four statements: “In most ways your life is close to ideal,” “The conditions of your life are excellent,” “You are satisfied with your life,” “So far you have gotten the important things you want in life.” Those who responded “Strongly agree” or “Agree” for each are coded as 1, and the resulting index ranges from 0 to 4. The alpha scores for this index are 0.61 at wave 2 and 0.65 at wave 3. Although these are lower than would be ideal, there are several reasons I opt to use the index. First, the index has a more normal distribution than each of the indicators has alone (see Appendix A). Second, the results using the index are very similar to results using just the one question, “you are satisfied with your life,” but the index captures more variation. I also tested different combinations of the four variables, but in each case, the alpha score did not improve. I then ran tests of measurement invariance using both the “sem” and “confa” commands in STATA, and found each of the four separate indicators to load significantly on the same underlying construct. The value of the likelihood ratio for the test against independence is also large and significant.

### ***Independent Variables: Stress***

I use three different measures of stress, chosen based on their availability across waves and their theoretical grounding in the prior literature as discussed above. These are traumatic illness, family breakups, and financial strain. Traumatic illness is measured by the question, “In the past two years, have you suffered any traumatic life events, such as someone you were close to dying or you or someone you were close to having a serious accident or illness?” Family breakups is measured by the question, “How many times, if any, have the people you consider your parents experienced a breakup of a marriage or a marriage-like relationship?” For ease of interpretation, this count measure is collapsed into three categories, “none,” “once,” and “twice or more.” Financial hardship is measured by the naturally dichotomous question, “In the past twelve months, was there a time when you [or the person who pays the bills for the household] were not able to pay a bill, such as the full amount of rent or mortgage, a gas, electric or other utility bill, or any other bill because you didn’t have enough money?”

### ***Mediating Variables and Controls***

*Religious Belief and Participation.* In addition to being asked if they had ever experienced a miracle from God, respondents are asked in a separate section of the questionnaire whether they believe in the *possibility* of divine miracles from God. Answers are coded in three categories: “Definitely = 2,” “maybe = 1,” and “no = 0.” I use this question as a mediating variable<sup>4</sup> in order to

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<sup>4</sup>By using the term “mediating,” I mean to refer to the possibility that the inclusion of these variables will have some influence on the previously established estimates; mediating does not suggest or imply a definitive causal ordering.

further strengthen the premise of the study that experiences of miracles are related to but also distinct from measures of belief. In ancillary analyses (see Appendix B), I also predict this belief in miracles—as opposed to *reports* of miracles—on the basis of the same measures of stress and controls used in the main analysis. As shown, belief in miracles exhibits similar positive correlations with being African American/black, being female, and having higher levels of religious institutional involvement. It does not, however, correlate significantly with external stress, of any of the three types. This further supports the premise that reports of miraculous experiences are related to stress in ways that religious belief is not.

To look at religious participation as a mediator, I use measures of early affiliation, involvement, and personal networks. I use a six-category measure of religious affiliation at wave 1 generated from the “reltrad” measure provided by NSYR staff, which follows the standard six-category coding of evangelical Protestant, Black Protestant, Mainline Protestant, Catholic, Other, and None (Steenland et al. 2000). I also include religious attendance at wave 2, using a dichotomized variable indicating whether the respondent attended at their primary religious congregation 2–3 times per month or more. I also use a count of how many of the teen’s five closest friends are religious, measured at wave 2.

*Demographic Variables.* I use a two-category measure of gender, along with a four-category measure of race/ethnicity: white/Caucasian, black/African American, Hispanic/Latino/a, and other (also teen-reported). Finally, I use a categorical measure of household income, as reported by the teen’s parent at wave 1.

## RESULTS

The central aims of my analysis are to (1) assess the relationship between different types of stress and religious experience, (2) test whether religious experience has a positive effect on life satisfaction, and (3) test whether religious experience moderates the effects of stress on life satisfaction. In the first section, therefore, the independent variable is stress, measured as three different types, and the dependent variable is miraculous experience. In the second and third sections, the independent variable is miraculous experience, and the dependent variable is life satisfaction. In each section, the baseline relationships are assessed first, and then controls for religious institutional involvement and belief are included, in order to assess secondarily whether these relationships are mediated through religious group participation.

### *Stress and Miraculous Experience*

The first three models (table 2) are nested logistic regressions predicting reports of miraculous experiences in late adolescence, on the basis of stress and other controls.

TABLE 2 Odds Ratios from Logistic Regression Models Predicting Miraculous Experiences at Wave 3

	(1)	(2)	(3)
Female	1.591***	1.577***	1.455***
African American/black <sup>a</sup>	3.912***	3.777***	2.971***
Hispanic/Latino/a	1.213	1.238	1.090
Other race/ethnicity	1.030	1.067	1.089
<i>Institutional religiosity</i>			
Mainline Protestant <sup>b</sup>	0.409***	0.403***	0.496***
Black Protestant	0.478**	0.493**	0.594
Catholic	0.332**	0.324***	0.420***
Other religion	0.502***	0.499***	0.699
No religion	0.232***	0.217***	0.514***
<i>Household income</i>			
\$30–70K yearly <sup>c</sup>	0.757*	0.708**	0.621***
\$70–100K	0.597***	0.560***	0.479***
>\$100K	0.669*	0.627**	0.558***
Do not know	0.645	0.592*	0.548**
<i>Hardship</i>			
Trauma (w3)		1.834***	1.954***
Family breakups (w3)		0.795***	0.840*
Financial strain (w3)		1.145	1.115
<i>Participation and belief</i>			
Regular attendee (w2)			1.555***
Religious friends (w2)			1.095**
Belief in miracles (w2)			2.716***
Constant	1.074	0.925	0.035
Pseudo- $R^2$	0.092	0.110	0.181
Observations	2,104	2,104	2,104

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

<sup>a</sup>Reference category is White/Caucasian.

<sup>b</sup>Reference category is evangelical Protestant.

<sup>c</sup>Reference category is less than \$30,000 a year.

Next to race/ethnicity, having experienced a trauma—again, understood as a traumatic illness or accident happening to one's self or a family member—is the strongest predictor of miraculous experience. Those who have had trauma are 83.4 percent more likely to report a miracle than those who have not. On the other hand, family breakups are negatively correlated with miraculous experience. The insignificant relationship between financial strain and miracles is notable, too, when compared with the substantial effects of race/ethnicity and household income on miracles. In short, therefore, the three types of stress

correlate with miracles in very different ways: trauma exhibits strong positive effects, family breakups exhibit strong negative effects, and financial hardship exhibits positive but insignificant effects.

Do these relationships seem to be mediated by institutional religiosity? Again, it depends on the type of stress. When I include religious participation and belief indicators in model 3, the strong positive association between trauma and miraculous experience remains, and in fact increases slightly, but the negative effect of family breakups becomes smaller and only significant at the  $p < .05$  level. The association between financial hardship and miraculous experience remains insignificant. Thus, institutional religiosity does seem to partially mediate the negative effects of family breakups on miracles, but does not mediate the positive effects of trauma on miracles.

### *Miracles and Life Satisfaction*

In table 3, I show models predicting life satisfaction on the basis of miraculous experiences and the three types of stress. I use the same indicator of miraculous experience measured at wave 3 since the question is worded “In the *past two years*, have you experienced a miracle . . .” and since interpretation of that event as a miracle likely happened sometime between the actual event and the moment of responding to the survey.

The effects of miraculous experience on life satisfaction are small but consistent. Yet although trauma is a very strong predictor of miraculous experience, its direct correlation with life satisfaction is small. On the other hand, family breakups and financial strain are strongly negatively correlated with life satisfaction in both models.

In model 2, I include controls for institutional religiosity in order to assess whether the relationship between miracles and life satisfaction is mediated by religious group involvement. This seems to be partly the case, since the effect of miracles drops from 0.161 to 0.117. On the other hand, it remains marginally significant, while none of the indicators of institutional religiosity themselves have significant direct effects. Also, when the lagged dependent variable is included in model 3, the effects of institutional involvement shrink to almost nil, while the effect of miraculous experience gets slightly larger and is significant at the 0.01 level.

### *The Protective Effect of Miracles*

The final research question of the study is whether miracles moderate the negative effects of stress on life satisfaction. In order to assess this, I ran several models that included interaction terms between miracles and the three types of stress. The marginal effects from these models, along with the  $R^2$  statistics, are shown in table 4. These are from models with all controls, including the lagged dependent variable.

This table shows that in each case, the marginal effects of stress on life satisfaction are significantly smaller for those who have experienced a miracle

TABLE 3 Predicting Life Satisfaction at Wave 3, Beta Coefficients from OLS Regression Models

	(1)	(2)	(3)
Miracle (w3)	0.161**	0.117*	0.129**
Female	0.205***	0.202***	0.178***
Black/African American <sup>a</sup>	-0.278*	-0.293**	-0.260*
Hispanic/Latino/a	-0.141	-0.159	-0.134
Other race/ethnicity	-0.370**	-0.378***	-0.294***
Mainline Protestant <sup>b</sup>	-0.191*	-0.168*	-0.193**
Black Protestant	-0.004	0.146	0.023
Catholic	-0.016	0.015	0.003
Other religion	-0.069	0.106	0.089
No religion	-0.259**	-0.169	-0.197*
<i>Household income</i>			
\$30-70K yearly <sup>c</sup>	0.165*	0.152**	0.062
\$70-100K	0.327**	0.314**	0.159*
>\$100K	0.407***	0.393***	0.199**
Do not know/refused	0.178	0.171	0.042
<i>Hardship</i>			
Trauma (w3)	-0.104*	-0.096*	-0.034
Family breakups (w3)	-0.151***	-0.142***	-0.129***
Financial strain (w3)	-0.288***	-0.289***	-0.235***
<i>Participation and belief</i>			
Regular attendee (w2)		0.100	0.012
Religious friends (w2)		-0.005	-0.017
Belief in miracles (w2)		0.076	0.054
<i>Lagged D.V.</i>			
Life satisfaction (w2)			0.380***
Constant	2.991	2.765	1.816
R <sup>2</sup>	0.090	0.093	0.222
Observations	2,104	2,104	2,104

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

<sup>a</sup>Reference category is White/Caucasian.

<sup>b</sup>Reference category is evangelical Protestant.

<sup>c</sup>Reference category is less than \$30,000 a year.

than for those who have not. Thus, reporting a miracle does partially attenuate the negative effects of stress. Although the interaction terms (not shown) are not statistically significant, in analyzing interactions, we are less interested in the significance of the interaction term than we are in the relative size of the effect of stress on life satisfaction between the two groups (those who have experienced miracles and those who have not). In other words, what matters are the marginal effects and standard errors, as shown in table 4, which are

TABLE 4 Interactions between Miracles and Life Stressors Predicting Life Satisfaction at Wave 3

	(2)	(3)	(4)
Miracle (w3)	0.098	0.068	0.105
Marginal effect of trauma when miracle = 0	-0.057		
Marginal effect of trauma when miracle = 1	0.004		
Marginal effect of family breakups when miracle = 0		-0.175***	
Marginal effect of family breakups when miracle = 1		-0.060	
Marginal effect of financial strain when miracle = 0			-0.271***
Marginal effect of financial strain when miracle = 1			-0.189
Constant	1.828	1.839	1.830
R <sup>2</sup>	0.222	0.223	0.222
Observations	2,104	2,104	2,104

calculated from the interaction terms and the main effects (the reasons for this are explained in detail in Brambor et al. 2006). What we are ultimately interested in is whether there is a difference in the relationship between X and Y (life stressors and life satisfaction) when Z (miracles) is 0, as compared to when Z equals 1. For those who have not experienced miracles, the effect of family hardship, for example, on life satisfaction is the main effect: -0.179. For those who *have* experienced miracles, on the other hand, the marginal effect of family breakups on life satisfaction is -0.060, which is found by adding the coefficients for family breakups to the interaction term. The predicted level of life satisfaction for this group is found by adding the constant, the coefficient for miracles, the coefficient for family breakups, and the interaction term, which equals 1.847. This is compared with 1.664 for those who have experienced a breakup but do not report a miracle. In the case of trauma, the differences are slightly smaller: 1.771 for those who have not experienced a miracle versus 1.930 for those who have. For financial hardship, the predicted values are 1.741 for those who have experienced a miracle and 1.554 for those who have not. Most importantly, among those who have experienced miracles, the effects of each type of stress on life satisfaction are statistically insignificant. Also, since the marginal effect of miracles on life satisfaction for those who have not experienced each type of stress is now insignificant (see row 1), it also seems that the direct effect of miracles shown in table 3 is at least partly working through this moderation pathway.



## DISCUSSION AND CONCLUSION

The evidence presented here supports the conception of miraculous experiences as faith pinnacle moments in the lives of young adults. They are more likely among those who have experienced traumatic events, they are positively correlated with overall life satisfaction, and they partially moderate the negative effects of multiple types of stress on life satisfaction. Reports of such moments of intervention make reference to a reciprocal bond with God in which both parties are observable agents. These reports therefore seem to be strong indicators that such a perceived bond exists. From the findings presented here, it also seems that such reciprocal bonds with God are frequently experienced and have significant psychological effects even among the unaffiliated and/or “nonreligious.”

Although the connection between such experiences and institutional religiosity is not central to the results presented here, it is worth noting that consistently Evangelical Protestant young adults exhibit much higher odds than any other group of reporting a miracle in conjunction with having experienced trauma. In the above, I have shown that the observed relationships between stress and miracles and between miracles and life satisfaction are not mediated by institutional involvement. However, faith pinnacle moments still seem to be connected to certain forms of institutional religiosity, namely the type of personal relationship with God that is heavily promoted in certain circles of Evangelical Protestantism. As such, the use of better indicators of personal experience may also help us to better understand changes in institutional participation later in life.

The fact that miraculous experiences correlate differently with different types of stress also tells us much about what young adults are referring to when they report them. Since the strong and positive correlation is with traumatic events, such as illnesses, accidents, or the death of a loved one, it is likely that the type of events that they are reporting as miracles are healings, or unexpected positive turns of events (i.e., a loved one coming out of a coma, an unlikely survival of a car accident). It does not appear that miraculous provisions in response to financial strain are occurring in the same way. Finally, since we see a *negative* effect of family breakups on reports of miracles, as hypothesized earlier, it is likely that those breakups negatively affect young adults' relationship to God, and thus their propensity to interpret a given event as a miracle. Again, this makes sense if we think of reports of miracles as indicative of a strong, reciprocal bond with God. The breakup in family relationships is likely to indirectly damage this bond through relational correspondence, and override the sense of need for intervention that the young adult experiences.

On the other hand, young adults who experience all three types of stress do better in terms of life satisfaction if they do experience what they believe is a miracle. As shown, miraculous experiences partially attenuate the negative

effects of all three stressors on life satisfaction. A miraculous experience therefore likely affects subjective well-being in more general ways, as opposed to only working as a specific response to a specific incidence of stress. In other words, those who report experiencing a miracle in response to trauma exhibit its protective effect in other areas as well, not just in response to that particular trauma. This conclusion is also supported by the finding that miracles attenuate the negative effects of family disruptions as well. It is highly unlikely that the miraculous experience reported is a reversal of that stress (i.e., divorced parents getting back together). What is more likely is that the miracle was experienced at a different point of intervention. Again, the experience of intervention in any area solidifies the sense of a reciprocal bond with God, which alleviates some of the strain of the family disruption.

The results of the study also show that the above relationships persist net of several measures of institutional religiosity. This runs somewhat counter to other studies which have suggested that the protective effect of religion on stress is primarily due to social support, rather than beliefs in or experiences of God (Lim and Putnam 2010; Stark and Maier 2008). While not denying the importance of religious-based social support as a correlate of subjective well-being, it is also too early to argue that the only or primary aspect of religiosity that affects well-being is its social functions. The evidence presented here, along with other studies (Pollner 1989; Schieman 2010; Smith 2007), suggests to the contrary that religious people put significant importance on their bond with God *net* of their relationships to co-religionists, and that this bond has its own independent associations with stress and with subjective well-being.

There is also evidence here that reports of miraculous experiences may be a stronger indication of the reciprocal bond with God than espoused beliefs. Although studies that have focused on the persistence of religious beliefs among the unaffiliated have rightly noted that an individuals' relationship to God is a central aspect of religiosity, I suggest that they have not quite gone far enough in measuring the two-way interactions that *constitute* such a bond. Although I cannot show directly with these data whether actual reports of miracles work differently in the models than, for example, beliefs in divine control, the fact that they do work differently than beliefs in miracles—and that their effects persist even when I control for belief—is promising. It is likely that the best indicators of the nature of the reciprocal bond would be a mixture of beliefs and reported actions and interactions. There is significant overlap here with research on “attachment to God” (Beck and MacDonald 2004; Rowatt and Kirkpatrick 2002), although I would suggest once again that the scales developed by those authors focus much more on beliefs about and attitudes toward God than reported *experiences* of God in and through particular events. Further, none of the existing studies of attachment to God have been tested on large representative samples.

Although race/ethnicity and economic status were not central concerns of this article, it is notable that both lower household income and being black/African American show persistent positive correlations with miraculous experience, even when family breakups, financial strain, religious involvement, religious affiliation, and traumatic events are controlled for. In most cases, explanations for greater religiosity among blacks have focused on the above mediating factors, citing in particular family hardship and the pervasiveness of church involvement in the black community (Ellison and Sherkat 1995; Lincoln 1990). Although those factors do certainly matter, they do not eliminate the direct effect of being black on miraculous experience. This relationship should be explored more fully in future work. It may be possible to think of minority status in a racialized society as a form of “exogenous stress,” with which again young adults can cope through spiritual resources and turning points. The same could be said for household income, which functions as relative deprivation in a highly unequal society like the United States. However, more work is needed to determine how miraculous experience fits within the overall relationships between religion, African American identity, and socioeconomic status.

Modifications of secularization theory have tended to focus on how “existential security,” such as that experienced in the United States and Europe, gradually leads to declines in individual religiosity and religious authority (Bruce 2011; Chaves 1994; Davie 1994; Norris and Inglehart 2004). Yet the evidence presented here, while not overturning that perspective, suggests an important caveat. Existential security cannot be merely looked at society-wide. There are still many that experience existential *in*security when illness strikes, accidents happen, and loved ones pass away, net of their religious, racial-ethnic, or socioeconomic statuses. Clearly, they frequently respond in religious ways, using religious beliefs and schemas to interpret events surrounding such traumas.

For such individuals, miraculous experiences challenge the dominant worldview of the “secular age” (Taylor 2007), and reinforce a religious meta-narrative that explains God, the world, and one’s role within it (Smith 2003). If one not only thinks but feels strongly that they have had a miraculous experience, and takes that as evidence of the divine and one’s relationship of obligation to that divine being, the experience seems to flout other interpretive possibilities (i.e., chalking it up to science or chance). An event that one person sees as evidence of the random unpredictability of the world, another sees as evidence of God’s reality, character, and intentions regarding oneself. For such people, religious meta-narratives continue to have an imminent quality, in that it is seen in their real-world experiences, which they take as evidence of its truth.

Religious responses to trauma can therefore be understood as a process of de-secularization, working at the level of individuals and subpopulations. Although we no longer live in a cultural milieu where supernatural

realities are imminent and self-evident to everyone, there are those for whom these realities continue to hold such an emotion-laden, imminent, and quite influential quality. While in such times of trauma individuals may not return to religion wholesale, they may—and frequently do—find resources in religious culture for providing a point of orientation (see Davie 1994). Although other studies have noted the persistence of such religious beliefs, this one is unique in that it goes a step beyond religious beliefs to religious experiences, as the moments in which people apply their beliefs to their reality.

As religious experience gets explored further in the future, it is also important to take steps beyond dichotomous either/or assessments and recognize the complexity and multidimensionality of frames that people use to interpret the world. For example, we are not limited to describing the meaning of a favorable event to the person reporting it as either strictly just chance or God's causal intervention. The experience for religious subjects might involve a reinterpretation of their relationship to God and life's contingencies that could be thought to be meaningful and even credible apart from belief in a strictly miraculous (breaking natural law) occurrence. This is important so that we do not artificially restrict our attention to one particular type of phenomenological experience. As individuals continue to apply religious elements in their own ways, it is crucial that researchers remain open to the possibility of new and diverse expressions of personal religiosity.

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## APPENDIX A: FREQUENCIES FOR COMPONENTS OF LIFE SATISFACTION INDEX

	The conditions of your life are excellent	You are satisfied with your life	So far you have gotten the important things you want in life	In most ways your life is close to ideal
Strongly agree	306 (14.54%)	571 (26.87%)	271 (13.12%)	217 (10.31%)
Agree	1,271 (60.41%)	1,280 (60.24%)	1,194 (56.75%)	1,254 (59.50%)
Don't know	19 (0.90%)	5 (0.24%)	8 (0.38%)	25 (1.19%)
Disagree	451 (21.44%)	237 (11.15%)	563 (26.76%)	502 (23.86%)
Strongly disagree	57 (2.71%)	32 (1.51%)	63 (2.99%)	106 (5.04%)
N	2,104	2,104	2,104	2,104

## APPENDIX B: ODDS RATIOS FROM LOGISTIC REGRESSION MODELS PREDICTING BELIEF IN MIRACLES AT WAVE 3

Female	1.759**
Black/African American <sup>a</sup>	3.010
Hispanic/Latino/a	1.543
Other race/ethnicity	0.901
Mainline Protestant <sup>b</sup>	0.305**
Black Protestant	0.424
Catholic	0.421**
Other religion	0.271***
No religion	0.298***
<i>Household income</i>	
\$30–70K yearly <sup>c</sup>	1.097
\$70–100K	0.658
>\$100K	0.457*
Don't know/refused	0.820
<i>Hardship</i>	
Trauma (w3)	0.820
Family breakups (w3)	0.823
Financial strain (w3)	1.282
<i>Religious participation</i>	
Regular attendee (w2)	2.691***
Religious friends (w2)	1.165**

*Lagged D.V.*

Belief in miracles (w2)	8.479***
Constant	1.018
R <sup>2</sup>	0.292
Observations	2,104

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .<sup>a</sup>Reference category is White/Caucasian.<sup>b</sup>Reference category is evangelical Protestant.<sup>c</sup>Reference category is less than \$30,000 a year.

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