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## Exposure to Worldview Pluralism and Adopting an Atheistic Worldview

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## Exposure to Worldview Pluralism and Adopting an Atheistic Worldview

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#### **Abstract**

While research identifies predictors of theistic beliefs, especially regarding theistic certainty, less research examines predictors of adopting an atheistic worldview—that is, shifting from a non-atheistic worldview to explicitly not believing in God. Much prior research examines religious apostates or nones, focuses on atheist identity rather than belief, and uses cross-sectional data. Berger (1967) argued that religious pluralism relativizes religious worldviews, undermining their plausibility. We hypothesize that exposure to diverse worldviews as a teenager will increase one's odds of adopting an atheistic worldview as an emerging adult. We use waves 1 and 3 of the National Study of Youth and Religion to test the relationship between exposure to diverse worldviews and adopting an atheistic worldview. Exposure to diverse worldviews through volunteering as a teenager is associated with increased odds of adopting an atheistic worldview as an emerging adult. We also find that teenagers with two nonreligious parents have significantly higher odds of adopting an atheistic worldview as emerging adults compared to those who have two parents of the same religious faith.

Worldviews are shared socially constructed meaning systems that provide a framework for understanding the world (Berger, 1967; Johnson et al., 2011; Sire, 2015). They are taken for granted, assumed, and plausible when societies unanimously share them, contingent on no other known options (Berger, 1967). Modernity brings pluralism—"a social situation in which people with different ethnicities, worldviews, and moralities live together peacefully and interact with each other amicably" (Berger, 2014, p. 1). In such societies, worldviews are no longer taken for granted, and individuals must choose to adopt worldviews rather than merely being born into them (Berger 1967, 2014). Pluralism relativizes all worldviews by making them choices, thereby undermining the certainty one has in any given worldview (Berger 1967, 2014). In his initial theory, Berger theorized that pluralism would lead to secularization due to the decreased plausibility of religious worldviews in pluralistic environments. His revised theory argues that pluralism is a "significant challenge" for religious worldviews but does not necessitate secularization (Berger, 2014). Religious worldviews need not be total and all-encompassing but can co-exist with other religious and secular worldviews. Still, some individuals have only religious or secular worldviews in pluralistic contexts (Berger, 2014, p. 53).

Pluralism not only refers to the variety of religious and secular worldview options in society but also, on a micro-level, the extent to which an individual has "pluralism in the mind" (Berger 2014: 29). There has been considerable research on the former, that is, the relationship between religious pluralism and religiosity at macro-levels (e.g., country, state, and county), but less attention to the latter. Proximate social contexts and interactions affect the worldview options available to people and the extent to which they are perceived to be plausible (Berger, 1967; Corcoran, 2013; Smith & Emerson, 1998; Stark & Finke, 2000; Wellman, 2008). Even in pluralistic environments, there is variability in the degree to which someone is exposed to worldview pluralism: "Reasonable people who are located in very different parts of the social world find themselves differently exposed to diverse realities, and this differential exposure leads each of them to come up with different [...] constructions of the world" (Luker, 1984, p. 191). While pluralism need not lead to the adoption of purely secular worldviews, we propose that more frequent interaction with diverse others and those with secular worldviews may especially weaken the plausibility of religious worldviews and increase the likelihood of adopting a secular worldview.

We test this in the context of adopting an atheistic worldview—shifting from a non-atheistic worldview, such as theism or agnosticism, to an atheistic worldview (*i.e.*, not believing in God). This study uses panel data from the National Study of Youth and Religion (NSYR) to examine the association between volunteering with diverse others and parental diversity of (non)religious worldviews as adolescents on adopting an atheistic worldview as an emerging adult. Volunteering with diverse others in time one is positively associated with the odds of adopting an atheistic worldview by time 2. We also found that adolescents with two nonreligious parents in time 1 have higher odds of adopting an atheistic worldview by time two compared to those with two parents of the same religious faith. However, we found no difference in the odds of adopting an atheistic worldview between those whose parents had different religious faiths or one

religious and one nonreligious parent compared to those with two parents with the same religious faith.

### **Adopting an Atheistic Worldview**

Although most people in the U.S. believe in God, this percentage has declined over time (Jones, 2022). Around 7 percent of the U.S. population has an atheistic worldview (*i.e.*, does not believe in God). Perhaps due to this, past research has generally focused on identifying factors associated with theistic beliefs, especially regarding theistic certainty (*i.e.*, the certainty of belief in God versus having doubts) (Brinkerhoff & Mackie, 1993; Corcoran, 2013; Durkin & Greeley, 1991; Nelsen, 1981; Wollschleger, 2021); research on the predictors of a specifically atheistic worldview has been comparatively absent (see the following for notable exceptions: Edgell, Frost, & Stewart 2017; Gervais et al., 2021; Scheitle & Corcoran, 2023; Sherkat, 2008).

Much of the previous research in this domain has examined religious apostates or nones, a category that combines theists, atheists, and agnostics (Hunsberger, 1980, 1983; Hunsberger & Brown, 1984; Strawn, 2019; Vargas, 2012), which makes it challenging to disentangle factors associated with adopting an atheistic worldview versus other types of worldviews. Additionally, research that has attempted to examine atheists in particular has tended to operationalize atheism as an identity rather than a belief or worldview system (Bainbridge, 2005; Beit-Hallahmi, 2007; Hunter, 2010; Langston, 2014; LeDrew, 2013; Smith, 2011). Such conflation makes it challenging to distinguish the factors that affect disbelief in God from those that affect lack of religious affiliation or atheistic identification. For example, because atheistic identities are stigmatized in the United States (Cragun et al., 2012; Edgell et al., 2016, 2017; Edgell et al., 2006; Hammer et al., 2012), some people who do not believe in God may choose not to identify as atheist, which is the case for around half of the former (Scheitle et al., 2019).

Finally, past research has tended to be correlational and cross-sectional, which limits the ability to make causal claims concerning adopting an atheistic worldview (Bainbridge, 2005; Beit-Hallahmi, 2007; Hunter, 2010; Langston, 2014; Sherkat, 2008). Drawing on Berger (1967, 2014), we theorize that exposure to pluralistic worldviews is positively associated with adopting an atheistic worldview.

#### **Worldview Pluralism**

Berger (1967) argued that pluralism relativizes religious worldviews and removes their taken-for-granted status, forcing individuals to face many competing (non-)religious choices, each with insufficient external legitimation to support their plausibility. The foregone conclusion was the decline of religious belief and practice or secularization. On the macro-level, public institutions and the government are less likely to support particular religious traditions or practices in religiously pluralistic societies, thus failing to provide an overarching plausibility structure for religious worldviews. On the individual level, religious pluralism

increases one's likelihood of interacting with others who do not share one's worldview, thereby undermining one's certainty (Olson et al., 2020; Olson & Perl, 2011). His subsequent work nuanced this argument by indicating that the emergence of secular worldviews need not be exclusively accepted, but instead, they can co-exist with religious worldviews. Pluralism still fosters secularization by undermining certainty in religious worldviews but not deterministically, as co-existence as well as adopting purely secular or purely religious worldviews are all possibilities.

Empirically, numerous studies have examined the relationship between religious pluralism and religious participation on the macro-level (Chaves & Gorski, 2001), most of which suffered from a methodological issue that undermined their results (Voas et al., 2002). Subsequent work not susceptible to this issue found a negative association between religious pluralism and religious participation rates (Koçak & Carroll, 2008; Olson et al. 2020). Micro-level research is scarce. Zuckerman and colleagues (2015; 2016) qualitative work identified that exposure to other cultures, religions, and beliefs, such as moving to a different country, is associated with becoming secular. Interacting with secular peers is associated with holding secular identities and worldviews, possibly due to exposure to worldview pluralism (Baker & Smith, 2009, 2015; Zuckerman, 2015; Zuckerman et al., 2016). Using the Canadian General Social Survey, Hay (2014) found that affirmative answers to the survey question "we are exposed to so many religious points of view that it is hard to relate to just one" are negatively associated with religiosity, religious service attendance, and maintaining belief in parental religion. McClure (2016, 2017) found that emerging adults who use the internet and social networking sites, proxies for exposure to worldview pluralism, have higher acceptance of practicing multiple religions and picking and choosing their religious beliefs. Those who use the internet are more likely to be religiously unaffiliated and less likely to hold to religious exclusivism. These studies suggest some support for increased exposure to diverse worldviews being positively associated with secularization but with less attention to whether it affects adopting particular (non-)-religious beliefs, such as an atheistic worldview. We hypothesize that exposure to worldview pluralism as an adolescent will be positively associated with adopting an atheistic worldview as an emerging adult.

Another form of worldview exposure is through one's parents. We expect adolescents whose parents share the same religious tradition to be less likely to adopt an atheistic worldview than those whose parents have different religious or secular worldviews due to the latter having higher levels of worldview exposure. Prior research has found that secular and less religious socialization via parents is essential for becoming and remaining secular (Baker & Smith, 2015; Manning, 2015; Zuckerman, 2015; Zuckerman et al., 2016). Using longitudinal data from Britain, Voas and Crockett (2006; 2005) found that whether adult children have a religious affiliation is, in part, affected by whether one, both, or neither parent had a religious affiliation. About 55% of adult children had a religious affiliation if both their parents did, 30% had a religious affiliation if one of their parents did, and about 9% had an affiliation if neither of their parents did. They found that "having parents of different religions/denominations does not result in lower transmission than where both parents belong to the same group" (578). This finding suggests that

exposure to diverse religious worldviews may have less of an impact on children's worldview adoption than exposure to secular worldviews. Consequently, we hypothesize that adolescents who grew up with at least one parent with a secular worldview will be more likely to adopt an atheistic worldview as emerging adults than those who grew up with both parents of the same religious faith. We also expect this difference to be more significant than that for those who grew up with parents of different religious faiths.

#### **Data and Measurement**

We test our hypotheses by drawing on panel data from the National Study of Youth and Religion (NSYR)—a nationally representative survey of teenagers in the United States that followed respondents over multiple waves (Smith 2019a, 2019b). The first wave of the NYSR occurred from July 2002 through April 2003 as a telephone survey of 3,290 English- and Spanish-speaking teenagers (13-17 years old) identified through random-digit dialing. Wave 1 also surveyed one parent of the teenager. For wave 3, respondents (18-23 years old) were surveyed at some point in time between September 2007 and April 2008. These interviews were conducted using a computer-assisted telephone interviewing system. All Englishspeaking teen respondents from Wave 1 were eligible to complete the Wave 3 survey even if they did not complete Wave 2 and no longer lived in the U.S. The retention rate between Wave 1 and Wave 3 was 77.1%. We use waves 1 and 3 because wave 1 represents adolescence and includes the parent survey, which provides us with religious identity information for that parent and their partner (if they have one), and wave 3 captures emerging adulthood. In wave one, there are responses from the teenager and one of their parents. While describing the variables, we indicate which ones responded to the questions.

On key socio-demographic variables, there are only minor differences between responders and non-responders in Waves 1 and 3 (Smith & Denton, 2003). Comparing the NSYR to other U.S. adolescent surveys (e.g., the National Longitudinal Study of Adolescent Health, Monitoring the Future, and the National Household Education Survey) as well as to the U.S. Census shows that it is nationally representative of U.S. teenagers (13-17) living in households (Smith & Denton, 2003). We use a longitudinal weight in all analyses, which corrects for census region, household income, the number of teenagers in the household, the number of household telephone numbers, and attrition.

#### Outcome Variable: Adopting an Atheistic Worldview

Our primary outcome of interest in this project is the adoption of an atheistic worldview. In waves 1 and 3, the teenage NSYR respondents were asked, "Do you believe in God or not, or are you unsure?" We operationalize the adoption of an atheistic worldview as an individual changing their answer to this question from "yes" or "unsure/do not know" in wave 1 to "no" in wave 3. This means that we exclude respondents from our analysis who responded "no" in wave 1, that is, those who already had an atheistic worldview in wave 1. Thus, our models only consider those with the potential of adopting an atheistic worldview by wave 3, which

requires that they did not have an atheistic worldview in wave 1. Table 1 visually depicts how we created the variable.

Table 1 – Operationalization of Adopting an Atheistic Worldview Outcome Variable

Wave 1 Belief in God's Response	Wave 3 Belief in God's Response	Outcome Coding		
a. No		Not eligible for adopting an atheistic worldview. They are excluded from the sample.		
b. Yes c. Unsure/do not know	a. No	(1) Adopted an atheistic worldview		
	b. Yes c. Unsure/do not know	(0) Did not adopt an atheistic worldview		

Predictors: Exposure to Worldview Pluralism

Exposure to Diverse Populations through Volunteering: In wave 1, teenage respondents were asked, "In the last year, how much, if at all, have you done organized volunteer work or community service?" with the following response choices: 1) Never, 2) A few times, 3) Occasionally, and 4) Regularly. Those who responded with 2-4 were asked a follow-up question: "How much, if at all, did your volunteer or service activities bring you into direct contact with people of a different race, religion, or economic class?" with the following response choices 1) A lot, 2) Some, 3) A little, and 4) None. We reverse-coded these categories such that the lowest value is none and the highest is a lot. We use this as one measure of exposure to worldview pluralism. Those not asked this question (*i.e.*, they responded never to the previous question) are included in the 'none' category. Based on the first question, we created a binary volunteer variable in which responses of 2-4 receive a value of 1 and responses of 1 receive a value of 0 (1= volunteer, 0 = never volunteer). This variable allows us to control for those who do not volunteer and were never asked the follow-up question.

Exposure to Religious Diversity through Parents: In wave 1, one parent of the teenage respondent completed a survey. They were asked, "What is your CURRENT living arrangement? Are you married or living with a partner, divorced, separated, or widowed and NOT living with a partner, or have you never been married?" Those who responded with no knowledge or refused are excluded. Those who reported being married or cohabiting were asked follow-up questions regarding their and their partner/spouse's religion, which the NYSR integrated into a variable with the following values: 1) both same religious faith, 2) different religious faith, 3) parent religious, spouse/partner not, 4) parent not religious, spouse/partner is, 5) neither religious, 777) do not know. Those who responded with no knowledge or refused are excluded. We combined 3 and 4 as they reflect one member of the couple being religious and the other not. We created a new variable that combines marital status responses with whether they share their

religious faith with their partner/spouse. This combined parental religious diversity measure has the following values: 1) not currently married/cohabiting, 2) married/cohabiting same religious faith; 3) married/cohabiting different religious faiths; 4) married/cohabiting one parent.<sup>2</sup> Religious; and (5) married/cohabiting neither parent religious. This is our second measure of exposure to worldview pluralism.

#### **Controls**

Teenage respondents were asked in wave one whether they attend religious services more than once or twice a year, not counting weddings, baptisms, and funerals; if they responded yes, they were asked how often they usually attend religious services. We combined these variables such that those who responded no to the first become the 0 category: 0) do not attend religious services more than once or twice a year; 1) few times a year; 2) many times a year; 3) once a month; 4) 2-3 times a month; 5) once a week; and 6) more than once a week.

We include the Wave 1 religious tradition of the teenage respondent, which is based on a series of questions and provided by the NYSR: 1) conservative Protestant; 2) Mainline Protestant; 3) Black Protestant; 4) Catholic; 5) Jewish; 6) Mormon/LDS; 7) Not religious; 8) Other religion; and 9) Indeterminate.

The parent reported Household income in wave 1 through a series of questions and merged into a single measure by the NYSR researchers. Do not know or refuse are treated as missing. The response categories are: 1) Less than \$10K; 2) \$10K-\$20K; 3) \$20K-\$30K; 4) \$30K-\$40K; 5) \$40K-\$50K; 6) \$50K-\$60K; 7) \$60K-\$70K; 8) \$70K-\$80K; 9) \$80K-\$90K; 10) \$90K-\$100K; and 11) More than \$100K.

We also include a binary variable for enrolled in college during wave 3 (1 = enrolled in college; 0 = otherwise), as previous research has suggested an association between non-belief or not being religiously affiliated and higher levels of education (Sherkat, 2008; Uecker et al., 2007).

We control for wave one teen gender (0 = female; 1= male), teenage in years, and teen race/ethnicity. In wave one, teens were asked questions regarding their race and ethnicity, which were merged, and response categories collapsed by NYSR. We combine the categories of Islander and Other due to small sample sizes: 1) non-Hispanic white; 2) non-Hispanic Black; 3) Hispanic; 4) non-Hispanic Asian; 5) Islander and Other; 6) Native American; 7) Mixed.

We also control for census region in wave one as some prior research has found that Southerners are less likely to be atheists, and atheists are more likely to face discrimination in the South, which may affect their odds of adopting atheism (Scheitle & Corcoran, 2018; Sherkat, 2008): 1) Northeast; 2) Midwest; 3) South; and 4) West.

Analysis Plan

We estimate a series of logistic regression models that predict adopting an atheistic worldview. A longitudinal weight is used in all analyses, which adjusts for

<sup>&</sup>lt;sup>2</sup> Parent here refers to the parent who completed the survey and their spouse or cohabiting partner.

each region-income stratum, thereby accounting for sample attrition between wave one and wave 3, which changes the distribution of census regions and income groups represented in the data.

#### **Results**

We present descriptive statistics for all measures, as shown in Table 2. At the top of this table, we see that 5% of the respondents adopted an atheistic worldview between Wave 1 (13-17 years old) and Wave 3 (18-23 years old). This study focuses on explaining what increases or decreases this baseline percentage, with a particular interest in the role of exposure to worldview pluralism.

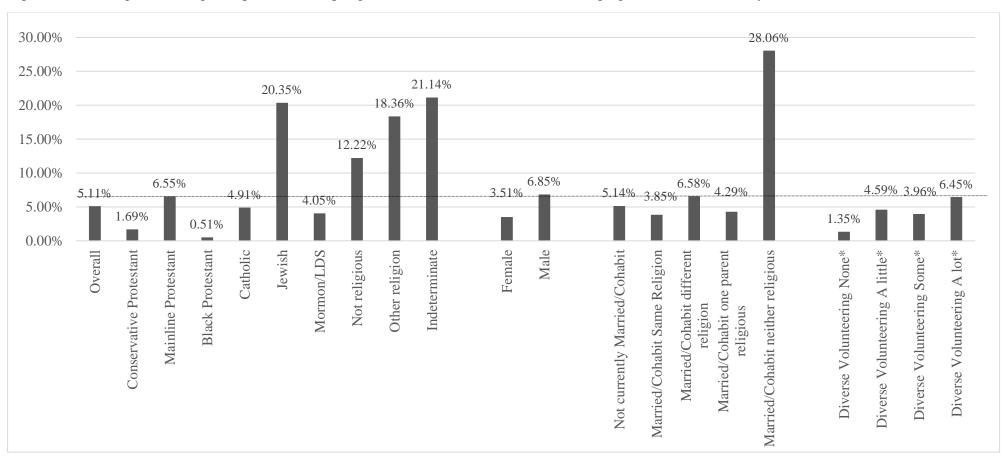
Regarding our measures of exposure to worldview pluralism, we see in Table 2 that 68% of the respondents reported volunteering at least a few times in the past year in Wave 1. The mean amount of exposure to diverse populations through these volunteering efforts is 2.33, which equates to a bit over the "a little" response. Remember that we hypothesize that respondents who report more significant exposure to diverse populations through volunteering will likely adopt an atheistic worldview in wave 3. We also see that 24.75% of the parents in wave 1 reported that they are not cohabiting or married, 56.75% reported having the same religious faith as their spouse/partner, 8.01% reported having different religious faiths present among the parents, 7.63% reported only having one religious parent, and 2.85% reported having neither parent being religious. As hypothesized, we expect respondents whose parents have different religious faiths or have at least one parent who is not religious to be more likely to adopt an atheistic worldview relative to those whose parents have the same religious faith.

Figure 1 presents some select bivariate patterns in the rate of adopting an atheistic worldview by wave 3. Again, we see that the overall rate of adoption is 5%. Looking at differences across respondents' religious traditions in wave 1, we find that this overall rate of adoption appears slightly higher among subjects who are Mainline Protestant (6.5%) and much higher among subjects who are Jewish (20.4%), not religious (12.2%), belong to another religion (18.4%), or whose religion was indeterminate (21.1%). The rate of adopting an atheistic worldview appears slightly lower among subjects who are Mormon (4.1%) and much lower among subjects who are Conservative Protestant (1.7%) or Black Protestant (0.5%). The Catholic (4.9%) rate is close to the overall percentage. We also find in Figure 1 that the rate of adopting an atheistic worldview by wave 3 is lower among females (3.51%) and higher among males (6.9%).

Looking at our exposure to worldview pluralism measures, we see that the rate of adopting an atheistic worldview is slightly higher among subjects whose parents held different religious faiths (6.5%) and slightly lower among those whose parents held the same religious faith (3.9%). This is in line with our expectations. However, we found the greatest rate of adopting an atheistic worldview among subjects whose parents were both not religious (28.1%).

	% or Mean	Std. Dev.	Min	Max
Adopted Atheistic Worldview	5.11%		0	1
Volunteer (Wave 1)	68.41%		0	1
Volunteer w/Diverse Others (Wave 1)	2.33	1.21	1	4
Parental Religious Diversity (Wave 1)				
Married/cohabiting same faith (Referent)	56.75%		0	1
Not currently married/cohabiting	24.75%		0	1
Married/Cohabiting different faiths	8.01%		0	1
Married/Cohabiting one-parent religious	7.63%		0	1
Married/Cohabiting, neither religious	2.85%		0	1
Gender (Wave 1)				
Female	52.09%		0	1
Male	47.91%		0	1
Age (Wave 1)	15.47	1.4	12.92	18.49
Household Income (Wave 1)	6.26	3.2	1	11
Enrolled in College (Wave 3)	50.51%		0	1
Race/ethnicity (Wave 1)				
Non-Hispanic White	68.30%		0	1
Non-Hispanic Black	15.18%		0	1
Hispanic	11.15%		0	1
Non-Hispanic Asian	1.22%		0	1
Islander and Other	1.12%		0	1
Native American	1.33%		0	1
Mixed	1.69%		0	1
Region of Residence (Wave 1)				
Northeast	16.34%		0	1
Midwest	21.59%		0	1
South	38.45%		0	1
West	23.61%		0	1
Religious Service Attend (Wave 1)	3.4	2.17	0	6
Religious Tradition (Wave 1)				
Conservative Protestant	31.79%		0	1
Mainline Protestant	11.56%		0	1
Black Protestant	10.46%		0	1
Catholic	27.30%		0	1
Jewish	1.35%		0	1
Mormon/LDS	3.95%		0	1
Not Religious	9.24%		0	1
Other Religion	2.24%		0	1
Indeterminate	2.11%		0	1

Figure 1. Percentage of Teenage Respondents Adopting an Atheistic Worldview as an Emerging Adult, overall and by select variables.



<sup>\*</sup> Limited to those who reported volunteering at least a few times in the past year.

The percentages in Figure 1 for volunteering among diverse populations are *limited to those who reported volunteering at least a few times in the past year*. We see that 1.3% of subjects whose volunteering efforts have yet to lead them to encounter diverse populations have adopted an atheistic worldview by wave 3. On the other hand, 6.5% of volunteers whose volunteering efforts have led them to encounter diverse populations "a lot" have adopted an atheistic worldview by wave 3. This provides some initial support for our hypothesis.

Of course, the bivariate patterns shown in Figure 1 do not account for the overlapping associations of our predictors and controls. We estimate logistic regression models to assess the net or independent associations between our focal predictors and adopting an atheistic worldview.

Logistic Regression Models

The results for our logistic regression models are shown in Table 3, which presents odds ratios where values greater than 1 represent an increase in the odds of adopting an atheistic worldview, and numbers less than 1 represent a decrease in the odds of adopting an atheistic worldview.

Model 1 includes only our focal predictors representing exposure to worldview pluralism. Our wave one volunteering indicator is significantly associated with reduced odds ( $odds\ ratio = .42,\ p < .05$ ) of adopting an atheistic worldview by wave 3. This could be a function of many volunteering efforts being organized through religious communities, which means that, in general, volunteers are more likely to be religious in the first place and less likely to adopt an atheistic worldview. However, *net of this general volunteering effect*, exposure to diverse populations through one's volunteering is significantly associated with greater odds ( $o.r. = 1.40,\ p < .05$ ) of adopting an atheistic worldview. This corresponds to what was suggested in Figure 1 and our hypothesis, although this also accounts for parental religious diversity.

Regarding parental religious diversity, we find that—relative to respondents whose parents held the same religious faith in wave 1—respondents with two parents who were not religious in wave one have significantly increased odds (o.r.=9.52, p<.001) of adopting an atheistic worldview by wave 3. We do not see significant differences in the odds ratios for the other parental religion categories relative to this group. This contradicts our hypothesis that respondents with parents holding different religious faiths would be more likely to adopt an atheistic worldview.

Model 2 includes only our control measures. We find that subjects with a more significant household income (o.r. = 1.11, p < .05) have significantly greater odds of adopting an atheistic worldview, as do those in the Mainline Protestant (o.r. = 3.13, p < .05), Catholic (o.r. = 3.35, p < .01), Jewish (o.r. = 6.93, p < .01), not religious (o.r. = 4.37, p < .01), other religion (o.r. = 13.98, p < .001), and indeterminate religious traditions (o.r. = 18.82, p < .001) relative to respondents in the comparison category of Conservative Protestantism.

On the other hand, we find that Black (o.r. = 0.16, p < .05) and Hispanic (o.r. = 0.21, p < .05) respondents have reduced odds of adopting an atheistic worldview by wave 3 relative to White respondents and relative to females, males have significantly greater odds (o.r. = 1.97, p < .01) of adopting an atheistic

Table 3. Logistic Regression Models Predicting Adopting an Atheistic Worldview

rabie 3. Logisti	Table 3. Logistic Regression Models Predicting Adopting an Atheistic Worldview					
	Outcome: Adopted an Atheistic Worldview Between Wave 1 and Wave 3					
		Model 1		Model 3		
Wave 1 Predictors	Odds	95% Confidence	Odds	Model 2 95% Confidence	Odds	95% Confidence
wave Tredictors	Ratio	Interval	Ratio	Interval	Ratio	Interval
Exposure to Worldview Pluralism	Tuilo	IIItoi vai	Ttutio	IIICI VIII	Tutto	Interval
Volunteer	.42*	[.19, .94]			.38*	[.16, .91]
Volunteer w/Diverse Others	1.40*	[1.03, 1.91]			1.47*	[1.05, 2.04]
volunteer w/Diverse Others	1.40	[1.03, 1.91]		<del></del>	1.47	[1.03, 2.04]
Parental Religious Homogamy						
Parents same religion (referent)						
Single parent	1.32	[.77, 2.26]			1.72	[.88, 3.33]
Parents have different religions	1.75	[.81, 3.74]			1.12	[.51, .2.44]
Only one parent has a religion	1.08	[.45, 2.56]			.69	[.27, 1.79]
	9.52***			<del></del>		
Neither parent has a religion	9.52****	[4.13, 21.94]			5.15***	[2.08, 12.73]
Controls						
Gender						
Female (referent)						
Male			1.97**	[1.18, 3.27]	1.93*	[1.16, 3.22]
Age			.99	[.82, 1.19]	.95	[.79, 1.15]
Household Income			1.11*	[1.01, 1.21]	1.13**	[1.03, 1.23]
Enrolled in College			.77	[.43, 1.37]	.80	[.44, 1.44]
Elifoned in Conege		<del></del>	.//	[.45, 1.57]	.80	[.44, 1.44]
Race/ethnicity						
Non-Hispanic White (referent)						
Non-Hispanic Black			.16*	[.03, .90]	.17*	[.03, .92]
Hispanic			.21*	[.06, .69]	.19**	[.05, .65]
Non-Hispanic Asian			1.47	[.28, 7.66]	1.16	[.17, 7.72]
Islander and Other			.61	[.05, 7.71]	.71	[.06, 7.72]
Native American			3.16	[.95, 10.58]	2.88	[.87, 9.54]
Mixed			.64	[.07, 6.04]	.65	[.07, 5.98]
Mined			.01	[.07, 0.01]	.03	[.07, 3.50]
Region of Residence						
South (referent)						
Northeast			.50	[.24, 1.04]	.45*	[.22, .94]
Midwest			.64	[.35, 1.18]	.62	[.34, 1.15]
West			.59	[.30, 1.14]	.64	[.33, 1.26]
			7 O stastasta	F 67 . 001	7 O shale	F 60 011
Religious Service Attendance			.78***	[.67, .89]	.78**	[.68, .91]
Religious Tradition						
Conservative Protestant (referent)						
Mainline Protestant			3.13*	[1.26, 7.80]	3.35*	[1.31, 8.55]
Black Protestant			1.47	[.13, 15.89]	1.28	[.12, 13.96]
Catholic			3.35**	[1.54, 7.28]	3.36**	[1.51, 7.48]
Jewish			6.93**	[1.96, 24.47]	8.71**	[2.46, 30.84]
Mormon/LDS			2.91	[.67, 12.57]	3.29	[.74, 14.74]
Not religious			4.37**	[1.73, 11.03]	2.93*	[1.16, 7.42]
Other religion			13.98***	[4.43, 44.10]	12.98***	[4.17, 40.38]
Indeterminate		 	18.82***	[5.70, 62.09]	16.73***	[4.91, 56.97]
N		2,193	10.02	2,193	10.75	2,193
11		2,173	<u> </u>	2,173	1	2,173

worldview. This corresponds to past research suggesting that the social and cultural costs of adopting an atheistic worldview are more significant for women and some racial and ethnic groups (Baker, 2020; Edgell et al., 2017; Hutchinson, 2011; Jeung & Calvillo, 2018; Kim, 2011; Miller, 2013; Scheitle et al., 2019). Finally, model 2 shows that wave 1 religious service attendance is significantly associated with reduced odds (o.r. = 0.78, p < .001) of adopting an atheistic worldview by wave 3. This finding is expected, as religious participation likely provides a social and cognitive shield from social forces that might otherwise lead to adopting an atheistic worldview. This is consistent with prior research finding that attending religious services less frequently at age 12 is associated with being religiously unaffiliated as an adult (Baker & Smith, 2009)

Model 3 includes our focal predictors of exposure to worldview pluralism and our control measures. Most notably, we find that—even after accounting for other variables like gender, age, income, race and ethnicity, and religious tradition—exposure to diverse populations through volunteering in wave 1 is significantly associated with increased odds (o.r. = 1.47, p < .05) of adopting an atheistic worldview by wave 3. As noted earlier, this is net of the general volunteering effect, which shows a significant association with reduced odds (o.r. = 0.38, p < .05) of adopting an atheistic worldview. To put this differently, volunteers have lower odds of adopting an atheistic worldview than non-volunteers. However, volunteers whose efforts lead them to encounter diverse populations have higher odds of adopting an atheistic worldview than those whose volunteering efforts do not lead them to encounter diverse populations.

Table 4 presents the predicted probability of adopting an atheistic worldview by different levels of volunteering-based exposure to diverse populations based on the findings in model 3. We see that holding other measures at their means, a respondent whose volunteering provides no exposure to diverse populations has a 1% probability of adopting an atheistic worldview by wave 3. For subjects whose volunteering provides them "a lot" of exposure to diverse populations, this probability increases to 4%. Although this appears to be a slight difference on the surface, remember that we are considering a relatively rare outcome in the first place, which equates to a four-fold increase in the probability.

Table 4. Predicted Probabilities (Model 3)

Adopted Atheistic Worldview			
	Predicted Probability	95% CI	
Volunteer w/Diverse			
Others			
1	0.01	[0.00, 0.02]	
2	0.02	[0.01, 0.03]	
3	0.03	[0.02, 0.04]	
4	0.04	[0.02, 0.06]	

Regarding our other focal hypothesis and predictor, we see in model 3 that even after accounting for our control measures, subjects who had two parents who were both not religious in wave 1 have significantly greater odds (o.r. = 5.15, p < .001) of adopting an atheistic worldview by wave 3 relative to those whose parents held the same religious faith. However, our hypothesis that subjects with two parents holding different religious faiths or one parent who is not religious would be more likely to adopt an atheistic worldview by wave 3 is not supported. We discuss these findings, their implications, and the limitations of this study further below.

#### **Discussion**

Prior research on the relationship between pluralism and religiosity has been primarily on the macro-level, neglecting more micro-level contexts (Chaves & Gorski, 2001; Koçak & Carroll, 2008; Olson et al., 2020; Voas et al., 2002). In this study, we examine whether exposure to diverse interactions through volunteering and (non)religious diversity through one's parents in adolescence are associated with adopting an atheistic worldview as an emerging adult. The frequency of diverse interactions while volunteering in adolescence is positively associated with increased odds of adopting an atheistic worldview in emerging adulthood. Diverse interactions may increase knowledge of an individual's (non)religious worldview options and provide social support for those alternative options, increasing their plausibility. This is consistent with prior research findings that social interaction precedes adopting a new religious belief or worldview (Lofland & Stark, 1965, p. 19; Snow & Phillips, 1980; Stark & Bainbridge, 1980; Stark & Finke, 2000). Similarly, Smith (2011) found that interacting and making friends with those who question whether God exists or who identify as atheists is a part of the process of adopting an atheist identity. While the findings cannot identify whether an atheistic worldview or identity comes first, this study does contribute to this area of research by quantitatively showing the role of temporally prior diverse interactions for adopting an atheistic worldview net of religious identification in time 1. Future research would benefit from disentangling the temporal process of diverse social interactions and adopting atheistic worldviews and identities.

There are many mechanisms by which individuals can have diverse interactions. For example, McClure (2017) found that individuals who use the internet, a proxy for exposure to worldview pluralism, are more likely to be religiously unaffiliated. In the United States, volunteering is in many ways connected to religion as religious organizations often encourage it, and some research finds that religious individuals are more likely to engage in it and civic engagement more broadly (Lewis et al., 2013; Park & Smith, 2000; Wilson & Musick, 1997). Thus, it is essential that the positive association we found between the frequency of diverse interactions through volunteering is net of an individual's religious service attendance, religious tradition, and whether they volunteer, which may be more likely for religious individuals and those who attend congregations. Because our measure of diverse interactions is based on volunteering, our results have implications for religious organizations, as religious individuals may be more likely to participate in this type of exposure to worldview pluralism due to

encouragement from religious organizations. An unintended consequence of such encouragement could be some individuals adopting an atheistic worldview. As the U.S. population becomes more diverse in terms of race, ethnicity, and (non)-religion, it may become more challenging for conservative religious groups to keep disconfirming worldviews away from their children, which may, in turn, lead to higher rates of adopting atheistic worldviews. Further research should utilize a variety of measures of diverse interactions to identify whether certain types, particularly those with more or less of a connection to religion, have stronger or weaker associations with adopting an atheistic worldview.

In terms of exposure to diverse (non)religious diversity through one's parents, we find that adolescents whose parents are both not religious have significantly higher odds of adopting an atheistic worldview compared to those whose parents are both the same religion. However, we find no significant differences in the odds of adopting an atheistic worldview between those whose parents are of the same religious faith and those whose parents are of different religious faiths or who have one religious and one nonreligious parent. This suggests that among U.S. adolescents at risk of adopting an atheistic worldview, having two parents of the same religious faith does not convey any additional advantage over one religious parent in maintaining a non-atheistic worldview net of the other variables in the model. These results differ from Voas and Crockett's (2006; 2005) findings that children with two parents with a religious affiliation are likelier to have a religious affiliation than those with one or neither parent having had a religious affiliation. The difference may be due to Voas and Crocket using data from Britain or due to the current paper examining outcomes in terms of belief rather than affiliation or using a predictor not based on religious affiliation.

Consistent with past research demonstrating a secularizing effect of income/economic development on macro- and individual- levels (Hirschle, 2013; Höllinger & Muckenhuber, 2019; Kasselstrand et al., 2023; Storm, 2017), we find that household income in adolescence is significantly associated with increased odds of adopting an atheistic worldview. Although prior research has found that younger individuals are more likely to identify as atheists or hold an atheistic worldview (Hunter, 2010; Scheitle & Corcoran, 2023; Scheitle et al., 2019; Sherkat, 2008), we did not find a significant association between age and adopting an atheistic worldview. This is likely because the age range of respondents is constrained and only varies by roughly 5.5 years across respondents.

Longitudinal panel data is ideal for examining the adoption of an atheistic worldview. However, this study was limited by the need for additional exposure measures to diverse worldviews in adolescence. Still, this study represents one of the few longitudinal, individual-level studies examining how exposure to worldview pluralism is associated with adopting an atheistic worldview over time. Future research would benefit from measures capturing a wide range of possible avenues of exposure outside of volunteering and parental interactions.

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