

DISSERTATION

UNSOLICITED RELIGIOUS SOCIAL PERSUASION REACTION SCALE (URSPRS):
DEVELOPMENT AND MIXED-METHOD VALIDATION

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ABSTRACT

UNSOLICITED RELIGIOUS SOCIAL PERSUASION REACTION SCALE (URSPRS): DEVELOPMENT AND MIXED-METHOD VALIDATION

Unsolicited religious social persuasion refers to an unsolicited action aimed at convincing or persuading someone to join or become involved with one's religion. Despite its potential emotional impact, no prior research has explored how such experiences affect nonreligious people. In the United States, being nonreligious is a concealable stigmatized identity, and those who identify as nonreligious encounter various forms of microaggressions. However, existing microaggression taxonomies do not account for experiences of unsolicited religious social persuasion.

To address this gap in the literature, I developed and refined the Unsolicited Religious Social Persuasion Reaction Scale (URSPRS) to assess how nonreligious individuals react to these experiences. The present mixed-methods study aimed to evaluate the URSPRS's psychometric properties and begin constructing a nomological network of related constructs. Nonreligious undergraduate students completed two online surveys spaced one month apart (Time 1: $N = 343$, Time 2: $N = 195$). Following confirmatory factor analysis and scale refinement, a two-factor model emerged with strong fit, and URSPRS scores demonstrated substantial test-retest reliability over the one-month interval. Qualitative responses to a hypothetical scenario involving unsolicited religious persuasion were manually coded for emotional valence and transformed into quantitative scores. Pearson's r correlations were used to examine associations between URSPRS scores and related variables, and moderation and mediation analyses were conducted to explore additional relationships.

The study findings provide preliminary evidence that the URSPRS is a stable and reliable measure. However, construct underrepresentation may impact the relationships between scores on the URSPRS and conceptually related constructs. When considering the negative reactions that many participants indicated and after examining the nature of unsolicited religious social persuasion, the findings support the interpretation of unsolicited religious social persuasion as a type of microaggression. Based on these findings, I propose a new microaggression taxonomy that includes unsolicited persuasion and is applicable to various chosen identities. Limitations, future directions, and implications for clinical practice are included.

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INTRODUCTION

Despite a well-documented decline in religious participation and just under 30% of U.S. adults identifying themselves as not religious, the United States remains a predominantly religious nation (Pew Research Center, 2025) that heavily privileges religious—specifically Christian—identities (Blumenfeld, 2009; Duncan, 2002; Schildkraut, 2014; Whitehead & Scheitle, 2018). Schlosser (2003) outlines a variety of individual privileges enjoyed by Christians in the United States, such as the ability to remain ignorant of the customs of other religious groups without penalty, the knowledge that their religious holidays will be celebrated in popular culture, and the freedom to openly express their religious identity without fearing negative consequences.

The privileges extend beyond personal. In the U.S., the Christian identity is reinforced in the pledge of allegiance, national currency, courtroom prayers, and the use of Christian bibles in the swearing-in of government leaders. Of the incoming 534 members of the U.S. Congress in 2023, 87.8% identify as Christian (Pew Research Center, 2023). A significant ideological relationship exists between national identity and Christianity in the U.S. (Whitehead & Scheitle, 2018) despite ever-increasing religious diversity (Pew Research Center, 2025). In a recent survey by the Pew Research Center, 45% of adults in the U.S. reported that they believe the United States should be a “Christian nation” (Smith et al., 2022). In the United States, Christianity has enjoyed a privileged status in legal and political institutions (Corbin, 2016; Duncan, 2002) and academic institutions (Burke & Segall, 2016). The personal and systemic privileged status of Christianity can translate into prejudice against and mistrust of non-Christians and, more specifically, nonreligious people (e.g., Riswold, 2015; Blumenfeld et al., 2009).

Prejudice Against Nonreligious People

Much of the research on nonreligious people has focused on prejudice against them, with a significant focus on prejudice against atheists specifically (Brewster et al., 2020; Cook et al., 2015; Cragun et al., 2012; Edgell et al., 2006; Gervais et al., 2011; Gervais & Krueger, 2014; Gervais et al., 2017; Goodman & Meuller, 2009). Based on nationally representative survey data from 2014, Edgell et al. (2016) identified that anti-atheist sentiment in the United States was strong, driven mainly by concerns regarding morality and national identity. Furthermore, Edgell identified that using the term “atheist” evokes a negative cultural stereotype that is opposed to positive cultural ideals, such as “neighbor” or “citizen” (p. 631).

In several experiments, Gervais and Krueger (2014) demonstrated that people in the U.S. intuitively view a large variety of immoral acts (such as serial murder and cannibalism) to be representative of atheists more than any of the eleven other religious, cultural, and ethnic groups presented. The authors noted that the intuitive judgment of atheists as immoral seems to come from their lack of belief in a deity, not their lack of participation in a religious group. An extension of this research showed that this same association between atheists and immoral action extends far beyond the United States and exists in a variety of religious landscapes, though the extent of this mistrust varies in magnitude (Gervais et al., 2017).

Work on the existence of prejudice and discrimination against nonreligious people is expanding. However, there is insufficient research on the uniqueness of the nonreligious identity and how aspects of the nonreligious identity—such as the perceived lack of identity, which I explore further next—influence the ways that nonreligious people experience discrimination.

Nonreligious Identities are Unique

Nonvisible religious identities, including nonreligiousness, occupy a somewhat liminal space in relation to the larger body of minority stress theory and, more specifically,

microaggressions research. Three core aspects make nonreligious identities unique. Being nonreligious is a concealable stigmatized identity (CSI), can be perceived as a lack of identity, and can technically be chosen (and is, therefore, mutable).

Invisible, Concealable, Stigmatized Identity

Nonreligiousness is an invisible concealable stigmatized identity (CSI; Quinn & Earnshaw, 2013). In an article by Clair et al. (2005), the authors note the differences between visible identities (such as race) and invisible identities (such as certain religious orientations). They remark that stigmas create problematic social interactions for those with visible identities. People with invisible identities, on the other hand, struggle with managing that stigma in public, often leading to psychological distress (Clair et al., 2005). The decision to reveal an invisible identity can be a source of internal conflict, as one must weigh the potential social implications of revealing the identity. For people with marginalized, invisible identities, there are psychological repercussions to the decision of whether to “pass” as a member of the dominant group or “reveal” their marginalized identity. “Passing” can create feelings of internal inauthenticity and distance in social relationships, while “revealing” opens one up to discrimination, stigmatization, prejudice, and social exclusion (Clair et al., 2005, p. 81).

When determining whether to reveal a stigmatized identity, people with CSIs must constantly perform mental calculus regarding the possible outcomes of outness. In a study by Frable et al. (1990), people were paired with a partner and were later asked to recall their discussion. People with CSIs were more likely to closely monitor their conversational partner for indications of discrimination and remained more mindful of their partner’s speech than those without CSIs. The partners with CSIs felt they had to remain more alert regarding their partner’s perspectives and adjust their interactions accordingly (Frable et al., 1990).

On a conceptual level, nonreligiousness aligns well with the existing research on CSIs and the larger body of work on the impact of marginalization. Initial empirical work supports this assertion. For example, in a study specifically on atheists, researchers demonstrated that atheists experience similar mental health impacts as those with other CSIs (Abbott & Mollen, 2018). Furthermore, atheists' anticipated stigma has been demonstrated to significantly influence their outness, and identity concealment was negatively correlated with psychological and physical well-being (Abbott & Mollen, 2018; Chaudoir & Quinn, 2010). Mackey et al. (2021) found similar effects for nonreligious people, in addition to demonstrating the impact of social identity threat on concealment behaviors. There is also evidence that nonreligious people may be more susceptible to social identity threat and concealment than people with a minority religious identity (e.g., Judaism; Mackey & Rios, 2023), likely increasing the impact of nonreligious identity concealment on psychological well-being. Although being nonreligious is a CSI, people may interpret nonreligiousness as a lack of identity.

Perceived Lack of Identity

As research has progressed, there is evidence that being nonreligious is, for many, an identity in and of itself, not a lack of identity (Baggett, 2019; Drescher, 2016; Mercadante, 2014; Speed et al., 2018). In a recent critique of the use of "nonreligious" as an umbrella term to identify people, Cragun and McCaffree (2021) expressed reservations about the use of this term. They noted that, as the proportion of nonreligious people grows, they are better identified by substantive identities that denote a specific meaning instead of with a term that describes the lack of a particular identity. I recognize and am sympathetic to the reasoning and impetus behind that argument. I have, however, made the conscious decision to use the term nonreligious as an identity term to connote marginalization experiences and the dynamics of power. The nonreligious terminology may be much less informative in contexts where religiousness is not

the majority identity, as Cragun and McCaffree (2021) indicated. This is not just a consideration of demographic percentages—it reflects the broader cultural dominance and power dynamics tied to religious identity in the U.S. In a study on the different approaches to nonreligiousness in the United States and Scandinavia, Zuckerman (2012) noted that not being religious is a much “bigger deal” in the U.S. because of the amount of power religion holds (p. 19). Existing outside of a dominant identity in and of itself indicates certain shared experiences.

While many nonreligious people find significant appeal in being uncategorizable (Drescher, 2016; Mercadante, 2014; Wallis, 2019), existing outside of organized religion does not mean existing outside of identity. Cragun and McCaffree (2021) noted that identifying someone as nonreligious encourages the implication of an identity defined as a negative. This is true; identifying as nonreligious is, linguistically, identification through negation. However, this does not mean that nonreligiousness is not an identity. Additionally, being nonreligious does not imply that there is a deficit in a person's life that must be filled with a religious identification.

Dimension of Choice

Much of the existing identity research focuses on marginalized identities within ethnicity/race, gender, and ability status—categories that are typically not considered voluntary (Fluit et al., 2024). Religious/nonreligious identities can be chosen and changed, making them comparatively unique. Due to this unique trait, it is challenging to generalize the existing research on the way people experience identities, perceive prejudice, and develop intersectional self-knowledge.

Though influenced by many external factors, one's nonreligious identity is a choice in many parts of the modern world. Also, the act of choosing/developing a religious identity is generally considered part of a person's overall identity formation process (Murken & Namini, 2006). Even if a person believes they do not have a choice socially or publicly, there is always an

option to privately reject or accept religious instruction. The variety of factors contributing to religious identity formation are not directly relevant to this study. What is relevant is the accepted belief that religious and, by extension, nonreligious identities can be chosen.

This belief is evidenced by the study of demographic trends in religious “switching”—what the Pew Research Center defines as “voluntary changes in religious affiliation” (Cooperman, 2022). Regardless of the direction of the change, it is understood to be voluntary, and this perception of choice likely affects how others respond to nonreligious people. Research suggests that people perceived to have chosen a marginalized identity often receive less empathy and face greater judgment than those seen as having been born into one (Haslam & Levy, 2006). For instance, childfree-by-choice (CBC) women frequently experience disbelief, dismissal, and social stigma for rejecting a normative identity. In an interview-based study, Gillespie (2000) found that CBC women were often labeled deviant. The reasoning underlying their decision to be childfree was largely disregarded or disbelieved.

These responses may reflect how nonreligious people are treated in societies where religious commitment is considered the norm. Both CBC and nonreligious identities are concealable, stigmatized, and defined by a rejection of a dominant norm. In both cases, the social response can include unsolicited persuasion—attempts to change the individual’s choice. While rarely overtly hostile, these persuasion-based interactions may communicate judgment, pressure, or invalidation. In the case of nonreligious people, such attempts manifest as unsolicited religious social persuasion (URSP).

Attempts to Persuade the Nonreligious

In the present study, unsolicited religious social persuasion (URSP) is defined as an unsolicited action aimed at convincing or persuading someone to join or become involved with one’s religion. This specific terminology was used to (a) capture a wide variety of styles of

proselytism, evangelism, encouragement, coercion, cajoling, and urging that might be used to convince someone to become more involved with religion; (b) focus on interpersonal religious persuasion as opposed to nonsocial methods of religious persuasions, such as billboards, advertisements, and books; and (c) focus on attempts that are unsolicited in origin—as opposed to responses to expressed interest in, or requests to learn more about, another's religion. In common parlance, religious social persuasion may be termed “evangelism,” “proselytism,” or “witnessing.”

Evangelism is an unpopular topic in psychological research compared to anthropological, sociological, philosophical, legal, or theological research (e.g., Barker, 1982; Hong, 2007; Stahnke, 2004; Stone, 2018; Thiessen, 2011). There are conflicting opinions regarding the ethics of evangelism, the purpose of evangelism, the methods of evangelism, and the goals of evangelism (e.g., Stone, 2018; Thiessen, 2011). However, the focus of these areas of research is ordinarily on the evangelizer, not the recipient of the evangelism attempts (e.g., Chilcote & Warner, 2008).

In the case of some forms of unsolicited religious social persuasion directed toward nonreligious people, the recipient may experience the persuader imposing their value system and implying negative beliefs about nonreligious identities. If this is a common experience among nonreligious people, and especially if URSP causes harm, it is necessary and important to better understand these interactions and the dynamics that govern their impact. It has become clear that the importance of microaggressions is in the impact on the recipient, regardless of the intent of the person committing the microaggression (Sue, 2010). This study aims to examine if the impact of URSP is experienced similarly to microaggressions by nonreligious people, regardless of intent.

Taxonomies of Microaggressions

Efforts have been made to develop a coherent and inclusive categorization system to identify and classify various types of microaggressions. Here, I identify two systems that are highly relevant for the present research: Sue's well-established and highly regarded taxonomy of racial microaggressions (2007) and Nadal et al.'s adaptation of that system to religious microaggressions (2010).

Sue's Taxonomy of Racial Microaggressions

The most widely recognized taxonomy of microaggressions is Sue et al.'s (2007) forms of racial microaggressions. Microaggressions are defined by Sue et al. (2007) as "brief and commonplace daily verbal, behavioral, and environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults to the target person or group" (p. 273). Sue et al. identified three forms of racial microaggressions: microassault, microinsult, and microinvalidation (2007). In brief terms, Sue et al. described microassaults as racially derogatory verbal or nonverbal attacks meant to harm the victim, microinsults as hidden insulting messages about one's racial identity, and microinvalidations as encounters that are meant to discredit or directly negate a marginalized person's experiential reality. According to Sue et al. (2007), the thematic categories of racial microaggressions are alien in one's own land (e.g., asking a person of color where they are from), ascription of intelligence (e.g., remarking about how articulate someone is), color blindness (e.g., claiming that one doesn't see color), criminality/assumption of criminal status (e.g., locking car doors when a person of color walks by), denial of individual racism (e.g., denying that one could be racist because they have a black friend), myth of meritocracy (e.g., stating that everyone has an equal chance of succeeding if they work hard enough), pathologizing cultural values/communication styles (e.g., telling someone to make eye-contact when speaking),

secondclass status (e.g., assuming that a person of color is part of the wait staff at a restaurant), and environmental invalidation (e.g., a university campus with statues commemorating Confederate officers). Many of these microaggression themes can be adapted to people with marginalized religious identities.

Nadal's Taxonomy of Religious Microaggressions

Nadal et al. (2010) adapted Sue et al.'s (2007) preexisting taxonomy to religious identities through the incorporation of existing research on religious oppression and discrimination. Nadal et al. (2010) asserted that the six categories of religious microaggressions are the endorsement of religious stereotypes (e.g., assuming that a Muslim person is a terrorist), exoticization (e.g., a nonreligious person performing "shamanic" rituals on social media), pathology of different religious groups (e.g., pointing at a Sikh person who is walking down the sidewalk), assumption of one's own religious identity as the norm (e.g., saying "Merry Christmas" without knowing if someone celebrates Christian holidays), assumption of religious homogeneity (e.g., believing that someone who is Hispanic must also be Catholic), and denial of religious prejudice (asserting that one cannot be antisemitic due to having a Jewish friend). These six categories map relatively well onto Sue et al.'s (2007) taxonomy. Endorsement of stereotypes, exoticization, pathologizing, and denial of prejudice are all very similar to parts of a taxonomy developed for racial microinvalidations. Nadal et al. (2010) went on to assert that religious microaggressions likely fall into the same three categories of microassaults, microinsults, and microinvalidations, depending on the severity, underlying themes, and intention of the communication.

Nadal et al.'s approach to developing categories of religious microaggressions based on a well-regarded, empirically supported extant model is a rational place to begin. However, unique aspects of nonreligious identities may result in unique types of microaggressions that are not so

easily drawn from other areas of microaggression research. To begin the process of understanding the unique experiences of nonreligious people in relation to unsolicited religious social persuasion, I began the process of scale development.

Scale Development and Structure

In my initial development of the Unsolicited Religious Social Persuasion Reaction Scale (URSPRS), I developed 28 items based on my own experiences with unsolicited religious social persuasion from family, friends, and strangers; social media content such as the reddit post from r/exchristian, “Did you participate in friendship evangelism[?]” or “Evangelism is awful” from r/atheism; news articles relating to discomfort with evangelism (e.g., Pace & Turoff, 2022); and existing content describing the experience of nonreligious people such as *The Varieties of Nonreligious Experience* (Baggett, 2019). Baggett writes about “Linda,” an openly atheist individual who “feels disrespected...when she gets informed by certain family members that she has been ‘prayed for’ or when they send her religiously themed birthday and holiday cards” (p. 83). Another participant noted that he declined to join a Bible study group in high school, explaining that “when he tried to explain his own views, [he] was met with assurances that he was succumbing to ‘the devil’s deception’ and that ‘hell awaits [him]’” (p. 87). In writing the items, I aimed to capture the kinds of feelings and experiences that nonreligious people expressed in these various sources.

Two groups of participants were recruited: nonreligious students in an undergraduate psychology research pool from a public research university in the western United States ($N_{\text{pool}}=365$) and nonreligious people recruited through a variety of snowball and online recruitment within various secular groups and organizations, Secular Students associations, the Center for Inquiry, the Secular Directory, the Secular Coalition for America, the Humanist Chaplaincy, the Atheist Research Collaborative, the Freethought Society, and the Clergy Project. I also recruited

on the social media site Reddit in a variety of overtly nonreligious or potentially nonreligious forums (or subreddits), including r/atheism, r/agnostic, r/thegreatproject, r/spirituality, r/exchristian, r/exmormon, r/exAdventist, r/satanism, and r/exmuslim ($N_{\text{nonpool}} = 794$, $N_{\text{total}} = 1,159$). An exploratory factor analysis (EFA) was performed on the 28 items using data collected from this latter sample, and a confirmatory factor analysis (CFA) was performed on data collected from the former sample.

The items included wording like “It makes me uncomfortable when people invite me to religious events,” and “When someone tries to convert me, it negatively impacts our relationship.” Participants were asked to rate the extent to which they agree with each statement on a 5-point Likert-type scale ranging from *Strongly Disagree* to *Strongly Agree*. A midpoint response (*Neither agree nor disagree*) was provided for people who may not have strong feelings about these kinds of events.

The exploratory factor analysis was run on the data from the non-research pool population ($N_{\text{nonpool}} = 794$). To determine whether factor analysis would be appropriate, a KaiserMeyer-Olkin (KMO) test and Bartlett’s test of sphericity were conducted. The KMO test (Overall Measure of Sampling Adequacy = 0.84) and Bartlett’s test ($\chi^2 = 4521.29$, $p < .001$) indicated that factor analysis was appropriate. The factor analysis method I deployed was minimum residuals, and oblimin rotation was used, as I anticipated the factors would be at least somewhat intercorrelated. Initially, seven factors were suggested by a parallel analysis (see Table 1). After examining item correlations, one item (Q7) was found to almost perfectly correlate with another (Q21); the two also shared almost identical wording. Therefore, Q21 was removed. Some items did not load onto any of the seven factors (Q6, Q8, Q11, Q14, Q15, Q20, Q25, Q26); these were also deleted.

After those adjustments, parallel analysis identified four factors (see Table 2). Three items no longer loaded onto any factor (Q1, Q2, Q21) and were removed. After removing these items, each remaining item loaded onto at least one factor. Q28 loaded onto factor 1 and factor 4 at approximately similar loadings (.44 and .46). After examining the items within each factor, the four factors were identified: Disinterest (in Religious Social Interactions), Relational Impact (of URSP), Social Acceptance, and Discomfort (with URSP).

A confirmatory factor analysis was then run using the data from the research pool population ($N_{\text{pool}} = 365$). After re-examining the four factors, Q28 (“Others tend to make me feel bad when I disagree with them on religious issues”) was judged to be a better fit for the Social Acceptance factor and was coded as such for the CFA. The results of the confirmatory factor analysis on the research pool data suggested that there was an unacceptable fit ($\chi^2 = 415.00$, CFI = .84, TLI = .80, RMSEA = .09, SRMR = .08) for four main factors. Scale reliability statistics were good ($\alpha = .81$, $\omega = .82$).

Table 1*Initial Scale: Exploratory Factor Analysis Items and Initial Factor Loadings*

		Factor						
		1	2	3	4	5	6	7
Q1	It is not my place to convince others to become nonreligious.							.67
Q2	I often have intellectual conversations about religion in which no one tries to convert me. (R)				.42			
Q3	It hurts my feelings when people try to convert me to their religion.			.75				
Q4	I enjoy conversations with religious people about religion. (R)	.61						
Q5	I feel uncomfortable when people try to convince me to become religious/join their religion.			.71				
Q6	It is not the place of others to convince me to become religious.							
Q7	When someone tries to convert me, they are doing it because they genuinely care about me. (R)					.91		
Q8	I am looking to join a religion/become religious. (R)							
Q9	I prefer it when someone I am close to tries to convert me than when a stranger tries to convert me. (R)		.50					
Q10	When someone close to me tries to convert me, it positively impacts our relationship. (R)		.59					
Q11	When people give me religious pamphlets and texts, I tend to read them.							
Q12	When someone close to me tries to convert me, it negatively impacts our relationship.		-.80					
Q13	People tend to respect the fact that I am nonreligious. (R)				.68			
Q14	I do not mind when people think I need to be saved.							
Q15	People often ask me to explain why I am not religious.							
Q16	When I tell people why I am nonreligious, they tend to accept my reasons. (R)				.74			
Q17	People become defensive when I explain why I am nonreligious.				-.44			
Q18	I have been told that I am going to be eternally punished for my beliefs.						.64	
Q19	People have tried to convince me that their religion is the truth.						.68	
Q20	It makes me uncomfortable when people invite me to religious events.							
Q21	When someone tries to convert me, I believe they have my best interest at heart. (R)					.84		
Q22	People tell me about their religious beliefs because I ask them to. (R)	.71						

Q23 I enjoy when people tell me about their religion. (R)	.87	
Q24 It bothers me when people attempt to convert me to their religion.		.45
Q25 Members of my family often try to convert me.		
Q26 I don't mind when people try to change my opinion on religion. (R)		
Q27 If a friend tried to convert me, it would affect how I think about our relationship.	.56	
Q28 Others tend to make me feel bad when I disagree with them on religious issues.	.43	

Note: Minimum residual extraction with oblimin rotation

Table 2*Revised Scale: Confirmatory Factor Analysis Items and Loadings*

Factor	Item	Est.*	<i>M</i>	<i>SD</i>
Social Acceptance	Religious people become defensive when they find out that I am not religious.	.82	3.79	1.01
	I have been told that I am going to be eternally punished for my lack of religious belief.	.67	3.98	1.29
	People have tried to convince me that I would benefit from religion	.66	4.46	0.81
	Religious individuals have asked me to defend why I am not religious.	.53	3.90	1.15
	Religious people accept my nonreligious identity (R)	-.69	3.47	1.14
Relational Impact	When someone close to me tries to convert me to their religion, it negatively impacts our relationship.	.88	4.22	1.00
	If a friend tried to convert me to their religion, it would hurt my relationship with them.	.85	4.13	1.02
	Maintaining a close relationship with a very religious individual would be difficult.	.51	3.47	1.27
	I wouldn't mind if a friend tried to get me involved with their religion. (R)	-.69	4.13	0.99
Discomfort	I feel offended when people try to convert me to their religion.	.75	3.65	1.23
	I feel uncomfortable when people try to convince me to become religious.	.80	4.16	1.09
	It bothers me when people attempt to convert me to their religion.	.91	4.29	0.97
	I don't mind receiving religious messages (e.g., emails, texts, cards). (R)	-.50	4.08	1.16
	Religious missionaries make me uncomfortable.	.64	4.14	1.56
Disinterest	It makes me angry when people try to preach their religion to me.	.77	4.04	1.05
	I often ask people to tell me about their religious beliefs. (R)	-.58	3.90	1.25
	I enjoy it when people tell me about their religion. (R)	-.77	3.22	1.31
	I avoid situations in which someone might try to talk to me about their religion.	.78	3.55	1.34
	I prefer that people keep their religious beliefs to themselves.	.73	3.97	1.14

*All loading estimates significant at $p < 0.001$.

After identifying the four main scale factors, I removed redundant and poorly-loading items. I contacted eight researchers who have studied nonreligious people, discrimination against nonreligious people, religious socialization of nonreligious people, and extant measures of nonreligious people. Four of the researchers contacted agreed to serve as Subject Matter Experts (SMEs). The four SMEs were sent the remaining items and several proposed items. The SMEs were told the purpose of the study (“to measure the nonreligious experience of unsolicited religious social persuasion [any unsolicited social action aimed at increasing religious interest, participation, or conversion]”). Then they were asked to (a) rate how relevant they thought each item was to the study purpose on a scale of 1-3 (1 = *not relevant*, 2 = *somewhat relevant*, 3 = *very relevant*), (b) provide any additional thoughts or comments on the items or the scale as a whole, and (c) note if they felt that anything is missing from the scale. After incorporating conceptual feedback from SMEs and making scale adjustments, I ended up with a 19-item scale with four subscales.

The university Institutional Review Board (IRB) approved the 19-item scale survey before distribution. I distributed the survey to nonreligious people through the same nonreligious organizations and nonreligious social media communities, as listed above, and through snowball recruitment by my SMEs. The survey was distributed online. Before being allowed to begin the survey, participants were informed about the nature and purpose of the survey and asked to consent. If they did not consent, they were automatically removed from the survey and thanked for participating.

Next, Three attention items were added: “Please mark ‘Somewhat disagree’,” “Please mark ‘Strongly agree’,” and “Please mark ‘Neither agree nor disagree’.” The data was removed if the participant failed two or more attention items. Eligibility criteria included being at least 18 years old and identifying as nonreligious. A total of 323 participants met the criteria and fully

completed the revised survey. Participants were asked several demographic questions, including age, gender identity, “openness” regarding their nonreligious identity, and type of nonreligious identification (e.g., humanist, atheist, agnostic). Most participants lived in the United States and Canada, and several lived in South America, Europe, Asia, and Oceania. Ages ranged from 18 to 80, with $M = 34.50$.

The revised scale showed a significantly improved fit ($\chi^2 = 303.50$, CFI = .99, TLI = .98, RMSEA = .05, SRMR = .07). Unidimensional reliability was calculated as both McDonald’s omega (as it relies on fewer assumptions than Cronbach’s alpha) and Cronbach’s alpha (as it is more widely reported than McDonald’s omega) for each factor (Social Acceptance: $\omega = .75$, $\alpha = .74$; Relational Impact: $\omega = .75$, $\alpha = .73$; Discomfort with URSP: $\omega = .82$, $\alpha = .81$; Disinterest in Religious Social Interactions: $\omega = .76$, $\alpha = .75$). McDonald’s omega and Cronbach’s alpha values demonstrated acceptable internal consistency within each factor (Nunnally & Bernstein, 1996; Hayes & Coutts, 2020). Using Pearson’s r correlations, each factor was found to be significantly correlated with each other factor (Social Acceptance & Relational Impact: $r = .26$, $p < 0.01$; Social Acceptance & Discomfort with URSP: $r = .24$, $p < .001$; Social Acceptance & Disinterest in Religious Social Interactions: $r = .12$, $p = .04$; Relational Impact & Discomfort with URSP: $r = .58$, $p < .001$; Relational Impact & Disinterest in Religious Social Interactions: $r = .46$, $p < .001$; Discomfort with URSP & Disinterest in Religious Social Interactions: $r = .46$, $p < .001$).

The factors’ correlations with each other are conceptually appropriate. It makes sense that a nonreligious person’s level of disinterest in religious social interactions, experiences of social disapproval of their identity, feelings of discomfort with URSP, and the impact that URSP has on their relationships would be positively correlated. The most substantial relationship (between relational impact and discomfort) demonstrates a powerful throughline of the impact of the

distinctly social aspect. Experiencing discomfort when encountered with URSP would, theoretically, play a large part in the way that URSP impacts one's relationships.

THE PRESENT STUDY

Purpose

While the research described in the previous section was used to introduce a new scale and establish evidence of an acceptable factor structure, more information was needed to determine a variety of other psychometric properties for this scale. Furthermore, due to the limited number of related measures, this validation effort would benefit from an additional qualitative component to build the nomological network of related concepts. For these reasons, the present study is a mixed-method scale validation study.

Model Fit

The first round of analyses is a confirmatory factor analysis, deployed to ensure that the model continues to demonstrate strong fit statistics.

Hypothesis 1: CFA will demonstrate a strong model fit that consists of four main factors: Disinterest in Religious Social Interactions, Relational Impact of URSP, Social Acceptance, and Discomfort with URSP.

Test-Retest Reliability

The URSPRS measures attitudes that should, in theory, be relatively stable over time. While no measure can be perfectly stable over time, transient factors such as mood should not greatly impact a person's score on the URSPRS.

Hypothesis 2: Over a period of approximately one month, the URSPRS will exhibit strong temporal stability, as evidenced by strong positive weighted kappa coefficients.

Construct Validity: Convergent Validity

As scores on the URSPRS aim to reflect emotional reactions towards URSP, it is reasonable to postulate that people who experience stronger negative reactions to URSP would

similarly project stronger negative reactions to an imagined scenario that could be perceived as URSP.

Hypothesis 3: There will be a strong negative correlation between URSPRS scores and emotional reactions to a possible instance of unsolicited religious social persuasion. The higher one scores on the URSPRS, the more negatively their reaction to the imagined scenario will be, as quantified through semantic analysis.

If the URSPRS is able to measure how a nonreligious person reacts to unsolicited religious social persuasion, the scores should be highly correlated with experiences of interpersonal conflict on the basis of religion.

Hypothesis 4: Scores on the URSPRS will demonstrate a strong positive correlation with reported experiences of conflict and negative interactions with religious or spiritual people or organizations.

If the construct of interest is, as I suspect, a type of microaggression that nonreligious people experience, there are several correlations that one can anticipate. Importantly, observing significant relationships with other measures in the minority stress literature would establish evidence that this construct belongs in that theoretical realm. Increased experiences with microaggressions and overt discrimination experiences should correlate with higher scores on the URSPRS. It follows that the more frequently one experiences social situations in which their nonreligious identity is either explicitly or subtly disparaged, the more negatively they would experience acts of unsolicited religious social persuasion. Such a finding would place this construct firmly within the nomological network of discrimination experiences that nonreligious people face.

The predicted strength of correlation relates to the level of impact that the frequency of overt and subtle experiences of prejudice and discrimination have on a person's experience of

unsolicited religious social persuasion. There is some evidence that subtle discrimination is correlated with adverse psychological outcomes at least as strongly as overt discrimination, if not more (Jones et al., 2016). Based on my conceptualization of unsolicited religious social persuasion being a microaggression against nonreligious people, I predict that the frequency of microaggressions is theoretically more closely related to the URSPRS and, therefore, may exhibit a stronger relationship than the frequency of overt discrimination.

Hypothesis 5: Scores on the URSPRS will exhibit a moderate positive correlation with the frequency of overt discrimination.

Hypothesis 6: Scores on the URSPRS will exhibit a strong positive correlation with the frequency of microaggressions.

Less agreeable people may experience unsolicited religious social persuasion as more negative than their more agreeable counterparts. Of the Big Five personality traits, agreeableness has been demonstrated to be most positively correlated with receptivity to all persuasion strategies (Alkış & Taşkaya Temizel, 2015). Furthermore, in a meta-analysis of personality traits and conflict styles, Tehrahni and Yamini (2020) found that more agreeable people consistently demonstrate conflict avoidance and a compromising style of conflict resolution. The increased receptivity to persuasion and conflict-averse nature of agreeable people may correlate to having fewer negative feelings regarding URSP.

Hypothesis 7: Scores on the URSPRS will be negatively correlated with agreeableness.

Construct Validity: Discriminant Validity

To establish discriminant validity, scores on this scale must be differentiated from constructs that should not be related. Extroversion provides one opportunity to examine discriminant validity. Extroversion may be tangentially related to social persuasion or religious issues, and extroversion scores convey a sense of one's interpersonal interactions and general

sociability (Soto & John, 2017). However, one's overall sociability should not impact how nonreligious people experience the act of unsolicited religious social persuasion. For this reason, I expect URSPRS scores to be uncorrelated with scores on a measure of extroversion.

Hypothesis 8: Scores on the URSPRS will not be significantly correlated with extroversion.

Criterion-related Validity

I will use the responses to the inference question on the qualitative measure (described below) to establish criterion-related validity. The URSPRS has been designed to measure how nonreligious people react to unsolicited religious social persuasion. Therefore, I expect scores on the URSPRS to predict how they might respond to an instance of possible unsolicited religious social persuasion.

Hypothesis 9: People who receive a higher URSPRS score will interpret potential instances of unsolicited religious social persuasion as having more malevolent intentions than people who score lower on the URSPRS.

Moderation Model

A person's level of stigma consciousness will likely relate to the way that nonreligious people react to instances of URSP. Stigma consciousness describes the extent to which a person anticipates that they will be stereotyped (Pinel, 1999). How someone may interpret possible situations of unsolicited religious social persuasion should exhibit significant correlations with their scores on the URSPRS (see Hypothesis 9). However, I suggest that stigma consciousness will moderate this relationship. If, for example, one has strong negative reactions to unsolicited religious social persuasion and is highly stigma-conscious, they should be more likely to interpret possible instances of unsolicited religious social persuasion as related to being stereotyped (Pinel, 1999). Someone who has strong negative reactions to unsolicited religious

social persuasion and is low on stigma consciousness may strongly dislike experiences of unsolicited religious social persuasion but be less likely to anticipate ambiguous scenarios as related to being stereotyped.

Hypothesis 10: Stigma consciousness will moderate the relationship between scores on the URSPRS and the way people interpret the imagined scenario, such that people higher in stigma consciousness will interpret the intentions of the person in the scenario as more hostile and more negative than do people lower in stigma consciousness.

METHOD

Participants for this study were recruited through an undergraduate psychology research pool at a public research university in the western United States. Following the established guidelines of the research pool, participants received credits commensurate to their time as compensation. Informed consent was obtained from all participants; the informed consent text included instructions regarding two survey administrations. To be eligible for participation in the study, consenting participants were required to be 18 years or older and self-identify as nonreligious. Both surveys were administered online using the survey platform Qualtrics.

A total of 378 responses were collected for Time 1 (T1), and 289 responses were collected for Time 2 (T2). The time period between T1 and T2 was approximately one month, or 31 (± 2) days. Participants who did not complete the survey, identified as religious, or failed two or more of the five attention check items (described below) were removed from T1. Participants whose user identification codes did not match T1 and T2 were removed from the T2 data. After these steps, there were 343 T1 participants and 195 matched T1 and T2 participants. All analyses and data cleaning were performed using R version 4.4.2 and RStudio version 2024.12.0+467.

Measures

Table 3 contains descriptive statistics and reliability estimates for each scale. Reliability estimates were calculated using Cronbach's alpha (α) and McDonald's omega (ω). McDonald's omega is generally considered more robust and flexible, as it relies on fewer assumptions than Cronbach's alpha; Cronbach's alpha is currently the standard reliability estimate within the field.

Table 3*Scale-level Descriptive Statistics, Reliability Estimates, & Fit Statistics*

Variable	Min	M	SD	Max	α	ω	CFI	TLI	RMSEA	SRM _R
URSPRS (Composite)	1.97	3.41	0.55	4.78	.83	.87	.96	.95	.09	.06
Discomfort	--	--	--	--	.77	.83	--	--	--	--
Relational Impact	--	--	--	--	.67	.72	--	--	--	--
Emotional Reaction	-5.00	-0.51	1.46	4.33	--	--	--	--	--	--
Interpretation	-5.00	0.21	1.58	3.67	--	--	--	--	--	--
RSSI	1.00	1.76	0.66	4.00	.81	.93	.99	.98	.06	.02
MADE	1.00	1.87	0.72	4.28	.93	.95	.76	.73	.11	.08
MANRIS	1.00	1.55	0.55	4.36	.96	.97	.78	.76	.11	.07
SCQ	1.00	3.46	1.09	7.00	.79	.84	.92	.87	.10	.06
BFI-2 (5-Factor)	--	--	--	--	--	--	.65	.64	.07	.09
Agreeableness	1.67	3.77	0.67	5.00	.79	.82	.81	.77	.09	.07
Extroversion	1.00	3.02	0.86	5.00	.85	.89	.77	.71	.14	.09
Openness	1.33	3.84	0.73	5.00	.81	.85	.74	.69	.12	.08
Conscientiousness	1.33	3.26	0.79	5.00	.84	.87	.79	.75	.12	.07
Neuroticism	1.33	3.27	0.87	5.00	.88	.90	.74	.69	.12	.08
Depression	0.00	12.52	5.18	27.00	.82	.85	.86	.81	.10	.07

Unsolicited Religious Social Persuasion Reaction Scale (URSPRS)

This is a 19-item instrument that emerged from the scale development process described in the introduction. Participants were asked the extent to which they agree with the following statements on a five-point response scale (1 = *strongly disagree* to 5 = *strongly agree*). The URSPRS focuses on internal reactions to unsolicited religious social persuasion. The URSPRS as a whole demonstrated good reliability (URSPRS composite $\alpha = .83$, $\omega = .87$), and subscale scores have yielded acceptable reliability (Social Acceptance: $\alpha = .74$, $\omega = .75$; Discomfort $\alpha = .77$, $\omega = .83$; Relational Impact $\alpha = .67$, $\omega = .72$; Disinterest in Religious Social Interactions: $\alpha = .75$, $\omega = .76$). URSPRS scores may be referred to as “reactions to unsolicited religious social persuasion.”

Measure of Atheist Discrimination (MADE)

This scale was developed by Brewster et al. (2016) to measure the frequency with which atheist people experience a variety of discrimination experiences. Participants were asked the frequency with which they experienced each item on a Likert-type scale (1 = *never* to 6 = *almost all of the time*). For this measure to be applicable to all participants in this study, the terminology was adjusted to apply to nonreligious people, not just atheists (e.g., “Because I am atheist, I have been asked how I can still have a purpose in life” was adjusted to “Because I am nonreligious, I have been asked how I can still have a purpose in life”). Scores on the MADE were summed to provide the general discrimination factor, as the original article indicated insufficient support for using the individual subscale scores. The authors reported that the MADE general discrimination factor demonstrated consistent validity and reliability. In a review of new measures for nonreligious people (Coleman & Jong, 2020), the general factor demonstrated good internal consistency and positive correlations with atheist stigma awareness and public devaluation of atheists. Scores on the MADE also were able to predict self-reported feelings of loneliness and psychological distress. The MADE general discrimination factor demonstrated strong reliability ($\alpha = .93$, $\omega = .95$). I will refer to scores on the MADE as “frequency of overt discrimination experiences.”

Frequency of Microaggression Experiences

To measure experiences of microaggressions, I used the Microaggressions Against Nonreligious Individuals Scale (MANRIS). This scale was developed by Cheng et al. (2018) to measure the frequencies of different types of microaggressions that nonreligious people may experience. This scale also uses a frequency measure, asking participants to report the number of times they have experienced each type of microaggression within the preceding six months (1 = *never*, 2 = *1-3 times*, 3 = *4-6 times*, 4 = *7-9 times*, 5 = *10 or more times*). While this scale is, in

many ways, very similar to the MADE scale, the MANRIS was developed to measure experiences of prejudice in the form of microaggressions. This scale focuses directly on biases, assumptions, and stereotypes, while the MADE explicitly focuses on overt discrimination experiences, such as overt maltreatment and social ostracism. Evidence for the validity of the MANRIS includes a significant positive correlation between MANRIS scores and higher levels of depression and nonreligious identity importance. In a review of new measures for nonreligious people (Coleman & Jong, 2020), MANRIS scores demonstrated high reliability and convergent validity with self-reported overt experiences of discrimination and depression symptoms after controlling for gender, ethnicity, and neuroticism. According to the authors, and similar to the MADE, the MANRIS should be interpreted as a general factor (Cheng et al., 2018). The MANRIS general factor scores demonstrated strong internal consistency reliability, with $\alpha = .96$ and $\omega = .98$. I will refer to scores on the MANRIS as “frequency of nonreligious microaggressions.”

Big Five Personality Traits

Personality traits were measured using the Big Five Inventory second edition (BFI-2) developed by Soto and John (2017). The BFI-2 is a well-established scale. In a meta-analysis of the BFI and results BFI-2 (Husain et al., 2025), which included 57 studies (with a total of 43,715 participants), they suggested that the BFI-2 has high internal consistency and higher reliability coefficients across all five domains of personality than the original BFI. The authors also performed a meta-regression on each of the five dimensions for age and sex characteristics and found that none of the regression coefficients (β , age/sex regressed on each of the five personality domains) were statistically significant.

They also reported that the BFI-2 should be considered highly reliable across various languages, as indicated by Cronbach's alpha values from administrations of the BFI-2 in Czech, English, Spanish, Italian, and Serbian, amongst others.

After performing a CFA on the BFI-2, it was found that there were significant issues with model fit (CFI = .65, TLI = .64, RMSEA = .07, SRMR = .09). I attempted to improve fit statistics by using the abbreviated version of the scale (BFI-2-XS), in which each personality dimension was measured using three items. Though the fit slightly improved, the subsequent reliability estimates of the individual subscales from the BFI-2-XS indicated poor or unacceptable reliability (Openness-XS: $\alpha = .58$, $\omega = .60$; Conscientiousness-XS: $\alpha = .55$, $\omega = .57$; Extroversion-XS: $\alpha = .63$, $\omega = .65$; Agreeableness-XS: $\alpha = .48$, $\omega = .49$; Neuroticism-XS: $\alpha = .68$, $\omega = .69$). Despite poor model fit, the full BFI-2 subscales demonstrated acceptable reliability, and the abbreviated version (BFI-2-XS) had far worse reliability, so the original scale was used.

Extroversion. Extroversion was measured using the extroversion trait items from the Big Five Inventory 2 (BFI-2). Participants were asked how much they agreed with a statement about themselves, rated on a 5-point scale (1 = *disagree strongly* to 5 = *agree strongly*). This measure includes 12 items beginning with "I am someone who..." (e.g., "Is dominant, acts as a leader"), including six reversed-scored items (e.g., "Tends to be quiet"). Scores on the extroversion scale of the BFI-2 demonstrated strong reliability ($\alpha = .85$, $\omega = .89$) and strong evidence of predictive validity regarding self-reported and peer-reported behavioral criteria (such as positive affect and conformity). This domain includes three facets: sociability, assertiveness, and energy level. The extroversion facets also reflected strong positive relationships with parallel scales on other measures of "Big Five" personality traits from the Big Five Aspect Scales (BFAS; DeYoung et al., 2007) and the NEO Personality Inventory-Revised (NEO PI-R) and the NEO Five-Factor

Inventory (NEO-FFI) (Costa & McCrae, 1992), indicating convergent validity.

Agreeableness. Agreeableness was measured using the agreeableness trait items from the BFI-2. Participants were asked the extent to which they agreed with a statement about themselves, rated using a 5-point response format (1 = *disagree strongly* to 5 = *agree strongly*). This measure includes 12 items beginning with “I am someone who...” (e.g., “Is polite, courteous to others”), including six reversed-scored items (e.g., “Starts arguments with others”). Similarly to the extroversion domain on the BFI-2, scores on the agreeableness scale demonstrated high reliability ($\alpha = .79$, $\omega = .82$) and have yielded strong evidence of predictive validity regarding self-reported and peer-reported behavioral criteria (such as positive relations and benevolence; Soto & John, 2017). Scores on the agreeableness facets of compassion, respectfulness, and trust have demonstrated expected relationships with facet scores from the BFAS, NEO PI-R, and NEO-FFI scales, demonstrating construct validity (Soto & John, 2017).

Depression

Depressive symptoms were measured to examine potential relationships between URSP experiences and psychological well-being, consistent with existing minority stress research. To measure depression symptomology, I used the 10-item Center for the Epidemiological Studies of Depression Short Form (CES-D-10; Andresen et al., 1994). The CES-D-10 is a well-established measure of depression that is used in a variety of studies relating to psychological well-being outcomes for nonreligious people (e.g., Sedlar et al., 2018; Hayward et al., 2016). This measure asks people to rate, on a four-point scale, how frequently they have experienced each within the last week, ranging from 0 (*none of the time*) to 3 (*most of the time*). Scores are summed; higher scores indicate more frequent experiences of depressive symptomology. CES-D-10 scores have demonstrated high internal consistency reliability ($\alpha = .82$, $\omega = .89$) and substantial evidence of strong convergent validity (with the BASIS24–Depression and Functioning Subscale) and

discriminant validity (from the BIAS24 — Psychosis subscale and the BASIS24—Substance Abuse subscale; Björgvinsson et al., 2013). The CES-D-10 has been found to be a highly reliable and valid screen for depression in a variety of populations, including adolescents (aged 15-21; Bradley et al., 2010) and acute psychiatric populations (Weiss et al., 2014).

Furthermore, a study of the psychometric properties of the CES-D-10 (Mohebbi et al., 2018) including 19,114 healthy, community-dwelling adults in Australia and the United States demonstrated strong internal consistency and invariance between countries, gender, race, ethnicity, language, and level of education. In a college-age sample, the full scale CES-D scores have demonstrated satisfactory specificity and predictive abilities regarding lifetime depression severity symptoms as specified by the DSM-IV (Shean & Baldwin, 2010).

Stigma Consciousness

To measure nonreligious stigma consciousness, I administered an adapted version of the 10-item Stigma Consciousness Questionnaire (SCQ; Pinel, 1999). The SCQ focuses on one's awareness of the stigma pertaining to a marginalized identity. This questionnaire included ten items. Participants indicated the extent to which they agreed with each item on a seven-point Likert-type scale (1 = *disagree strongly* to 7 = *agree strongly*). This scale has been adapted to various stigmatized groups, including sexual minorities (Nouvelas-Pallejà et al., 2018), racial minorities (Wilton et al., 2013), people experiencing infertility (Taebi et al., 2019), people with learning disabilities (Daley & Rappolt-Schlichtmann, 2018), atheists (Brewster et al., 2016), and nonreligious people in general (Mackey et al., 2021). Following Mackey's example, I used the nonreligious-adapted SCQ, which demonstrated good reliability ($\alpha = .79$, $\omega = .84$) and included items such as "I almost never think about the fact that I am not religious when I interact with religious people." Scores on the SCQ adapted for nonreligious identities have demonstrated positive correlations with the concealment of one's nonreligious identity. Scores were heavily

influenced by the region of the United States in which one was living, indicating sensitivity to the significant impact of cultural factors on stigma consciousness. Scores on the SCQ will be referenced as “stigma consciousness.”

Interpersonal Religious and Spiritual Struggles

I used the Religious and Spiritual Struggles Scale’s Interpersonal subscale (RSS-I; Exline et al., 2014) to measure interpersonal religious and spiritual struggles. The RSS-I outlines conflict and negative interactions with religious or spiritual people or organizations. While the Religious and Spiritual Struggles scale did include nonreligious people in its development and validation process, many of the items imply the respondent is a religious or spiritual person.

The interpersonal subscale, however, does not exclude any religious or spiritual identity and is focused on interpersonal relationships with religious/spiritual others or organizations. This subscale includes five items and reflects a variety of negative feelings and experiences relating to religion, including religious others “looking down on me” and feeling “hurt, mistreated, or offended by religious/spiritual people” (Exline et al., 2014, p. 213). Participants were asked to rate the extent to which, over the previous month, they had experienced the behaviors described in each of the items on a 5-point scale ranging from 1 (*not at all*) to 5 (*a great deal*). Scores on the interpersonal subscale demonstrated strong reliability ($\alpha = .81$, $\omega = .93$). The interpersonal subscale has also demonstrated validity through correlations in predicted directions with state anger, religious doubt, and levels of attribution to the self for specific religious/spiritual struggles (Exline et al., 2014). Scores on the RSS-I will be referred to as “interpersonal religious or spiritual struggles.”

Projective Reaction to Imagined Scenario

The participants were presented with the following scenario:

Imagine you have a close friend who is religious and knows that you are nonreligious. One day, out of the blue, they send you a text: “I’m going to church tomorrow—you should come with me!” Consider your immediate reaction to reading this message.

1. Write a few sentences about how this text would make you feel.
2. Write a few sentences about how you would interpret the sender’s intentions. This scenario and these questions were provided before any of the other measures. Responses to the first question will be referred to as “emotional reaction,” and responses to the second will be referred to as “interpretation.”

Disclosure of Relevant Identities. Best practice in qualitative data analysis indicates that disclosing relevant identities is essential and provides necessary context (Yeh & Inman, 2007). It was important that all three coders identified as nonreligious to best understand and interpret the responses given by nonreligious people. As the primary coder and the developer of the codebook and coding instructions, my identities likely had the strongest influence on results. I am an atheist and was raised in a nonreligious household. The second coder identified as nonreligious, though they were raised in a religious household. They were raised in Southern Methodist and Southern Baptist communities and, later in life, left these communities and began to identify as an atheist. The third coder identified as an atheist and was raised Catholic. All three coders have experienced instances of unsolicited religious social persuasion. Each of the three coders had previous qualitative coding experience.

Sentiment Analysis Method. Given the limitations of automated tools, sentiment analysis was performed manually to maximize fidelity. The three coders independently assigned a -5 through 5 score to each response. As the primary researcher, I provided a codebook with example responses that would receive each whole-number score for both the emotional response

and the interpretation (see Table 4 for codebook). Coders were encouraged to refer to the codebook during the coding process and were trained simultaneously.

Coders were instructed not to interpret behavioral responses unless the participant included additional contextual or emotional information. For example, a participant saying, “I would probably go with them,” should not be interpreted as positive or negative without additional information. However, “I would probably go with them, and I would be grateful to receive their invitation,” should be interpreted positively, as the participant explicitly shared a positive sentiment regarding the situation. Coders were additionally instructed that responses demonstrating equally positive and negative emotionality should receive zero scores. For example, if a participant said, “I would be kind of happy and also kind of sad,” without additional information, the response was to be given a score of zero. Responses that provided positive and negative emotionality but also indicated the strength were to be rated to reflect this. For example, if the participant stated, “I would be kind of happy and also kind of sad. Mostly, I would feel disrespected, though,” this would receive a negative score as the respondent expressed that the overall valence of emotion was negative.

Sentiment Analysis Descriptives. The mean absolute difference (MAD) and intraclass correlation coefficient (ICC; chosen for its ability to account for more than two coders) were calculated to assess rater agreement and consistency. The MAD was 0.69, and the ICC was .82. The high ICC indicates strong agreement between raters, whereas the MAD indicates that the three raters differed by about 0.69 points in their ratings. On a scale that ranges from -5 to 5, this difference is relatively small. Scores for each item were the average score of all three raters (e.g., a response that received a 1, 1, and 2 would receive a score of 1.33). Scores on the emotional reaction question ranged from -5 to 4.33 ($M = -0.51$, $SD = 1.46$), and scores on the interpretation question ranged from -5 to 3.67 ($M = 0.21$, $SD = 1.58$).

Table 4*Sentiment Analysis Codebook*

Score	Emotional Reaction Example Response	Interpretation Example Response
5	I would honestly feel honored that they invited me to something so personal to them. Although I am non-religious, I do enjoy going to churches or religious settings just to learn.	They want me to see their joy and happiness they get out of going to church. Also if it's really important to them then they might want to be able to share the same love for it.
4	I would be excited to share that experience with them. I'm always happy to learn more about my friends and what they believe. One of my friends was Buddhist and I really liked going to her meetings with her.	I would interpret it as a sincere opportunity and offer to learn about something that is very near and dear to my friends' heart. Rather than interpreting it as them trying to convert me, I think if they were my friends, they would genuinely just be trying to share something with me that they think could improve my life because they believe it has improved theirs.
3	I wouldn't be opposed to receiving a text like this because it would make me feel good knowing my friends want to include me in their ways of life.	I would interpret this text as someone reaching out with good intentions. Really anyone who cares enough to invite you to church when they know you are not religious is someone who just wants to look out for you.
2	Since I have never been to church, the offer would interest me. I would honestly be honored to have been asked by my close friend to participate in something that is important to them.	I would be glad that they were including and thinking of me. The text wasn't worded in a way that would make it feel like it was being pushed on me so I don't think I would feel pressured or obligated to accept. I know that it would be coming from a good place so overall I would appreciate them offering.
1	I would be happy that they invited me	I would always assume it was asked with good intentions. I wouldn't think they were trying to be rude in any way.
0	Yeah, not for me.	Just an invitation
-1	I would be confused and feel weird about the situation.	I would interpret this as a subtle way of trying to convert me.
-2	I would feel uneasy at their intentions and hesitant on how to respond for fear of it jeopardizing our friendship. There's no doubt in my mind that I would not go.	To me it would seem as though they are trying to get me to be more religious Maybe that there's something wrong about me because I don't go to church.

-3 This would make me feel slightly disrespected because they would know my opinion on religion. Part of me would think it was nice of them to want me to come with and experience something that means a lot to them. But mostly I would feel disrespected.

-4 I would immediately not want to go. It would feel like a waste of my time. I think they should respect my boundaries of not wanting to participate in any religious traditions.

-5 This text would make me feel anxious and scared. Almost pressured in a way to conform to a religion. I feel like if I want to go I'll make that call on my own time.

I think I would mainly be confused. Why is my friend just now saying this? Was this their motivation for the friendship all along? I might also think it wasn't solely their idea.

In the way that the scenario is worded, I am led to believe that the sender is being condescending and is judging the recipient. I think that if the sender is truly aware that the recipient is non-religious then their intentions with this message must be to attempt to convert the recipient to following religion.

I would think they're trying to get me to convert which is inconsiderate and insulting assuming they of all the other people I've met could 'convince' me.

RESULTS

Demographics

The initial sample (T1) consisted of 343 participants aged 18 to 47 ($M = 19.08$, $SD = 2.58$). Most participants identified as cisgender females (71.43%), White/European (80.94%), middle or upper-middle class (41.11% and 42.27%, respectively), 1st years in college (62.97%), and did (when provided with the options Atheist, Agnostic, Spiritual but not religious, Nothing in particular, Humanist, and Other) not identify with any particular nonreligious category (33.82%). According to the Pew Research Center's 2025 report on religious "nones" in the United States, nonreligious adults in the U.S. are primarily men (51%), White (63%), identify as "nothing in particular" (63%; when given the options of "atheist," "agnostic," and "nothing in particular"), are between 30-49 years old (40%), and have completed some college or are college graduates (66%; Pew Research Center, 2025).

Most participants in this study stated that they have identified as nonreligious for 10+ years (55.39%) and were openly nonreligious (74.93%). Most of those who identified as openly nonreligious had been openly nonreligious for 10+ years (44.74%). Most participants described their household while growing up as somewhat religious (35.86%) or nonreligious (32.65%), and most identified their current community as somewhat religious (48.98%). According to the 2019 U.S. Secular Survey, most nonreligious adults in the U.S. were raised as Christians (54.7% Protestant Christian, 29.9% Catholic; Frazer et al., 2020).

The demographics from T2 are relatively similar to those from T1. For a complete summary of demographic statistics, see Table 5.

Table 5
Participant Demographics

	T1				T2			
	Min	<i>M</i>	<i>SD</i>	Max	Min	<i>M</i>	<i>SD</i>	Max
<i>Age</i>	18	19.08	2.58	47	18	18.99	2.12	37
	N = 343				N = 195			
	<i>n</i>		<i>%</i>		<i>n</i>		<i>%</i>	
<i>Gender Identity</i>								
Cisgender female	245		71.43		141		72.31	
Cisgender male	68		19.83		37		18.97	
Transgender female	3		0.87		1		0.51	
Transgender male	7		2.04		4		2.05	
Gender non-binary	18		5.25		10		5.13	
Agender	1		0.29		1		0.51	
Gender not listed	1		0.29		1		0.51	
<i>Nonreligious Category</i>								
Atheist	70		20.41		43		22.05	
Agnostic	77		22.45		40		20.51	
SBNR	71		20.70		40		20.51	
Nothing in particular	116		33.82		67		34.36	
Humanist	3		0.87		1		0.51	
Other	6		1.75		4		2.05	
<i>Length of time identifying as nonreligious</i>								
0-6 months	6		1.75		3		1.54	
6-12 months	4		1.17		2		1.03	
1-3 years	38		11.08		27		13.85	
4-6 years	61		17.78		29		14.87	
7-9 years	44		12.83		25		12.82	
10+ years	190		55.39		109		55.90	
<i>Openly nonreligious?</i>								
Yes	257		74.93		150		76.92	
Only with a select few	60		17.49		35		17.95	
No	19		5.54		6		3.08	
Other	7		2.04		4		2.05	
<i>Length of time openly nonreligious (if applicable)</i>								
0-6 months	26		7.60		11		5.67	
6-12 months	14		4.09		10		5.15	
1-3 years	55		16.08		36		18.56	
4-6 years	61		17.84		32		16.49	

7-9 years	33	9.65	19	9.79
10+ years	153	44.74	86	44.33
<i>Which of these best fits your experience while growing up?</i>				
Extremely religious	22	6.41	14	7.18
Religious	62	18.08	38	19.49
Somewhat religious	123	35.86	68	34.87
Nonreligious	112	32.65	62	31.79
Culturally religious	6	1.75	2	1.03
Not sure	7	2.04	3	1.54
Other	11	3.21	8	4.10
<i>In your current community, people generally seemed to be</i>				
Extremely religious	5	1.46	3	1.54
Religious	83	24.20	46	23.59
Somewhat religious	168	48.98	94	48.21
Nonreligious	81	23.62	50	25.64
Not sure	3	0.87	0	0.00
Other	3	0.87	2	1.03
<i>Year in College</i>				
1st year	216	62.97	126	64.62
2nd year	70	20.41	37	18.97
3rd year	41	11.95	25	12.82
4th year	11	3.21	5	2.56
5th year	3	0.87	1	0.51
Other	2	0.58	1	0.51
<i>Socioeconomic Status</i>				
Lower class	10	2.92	6	3.08
Lower-middle class	40	11.66	19	9.74
Middle class	141	41.11	78	40.00
Upper-middle class	145	42.27	88	45.13
Upper class	7	2.04	4	2.05
<i>Ethnicity</i>				
African American/African	6	1.57	3	1.36
American Indian/Alaskan Native	3	0.78	3	1.36
Asian or Pacific Islander	19	4.96	10	4.52
White or European	310	80.94	178	80.54
Hispanic, Central/South American	41	10.70	25	11.31
Other	4	1.04	2	0.90

Confirmatory Factor Analysis

Data were assessed for normality and multicollinearity before performing the confirmatory factor analysis (CFA). While normality is not a strict requirement for CFA, it was evaluated to determine the most appropriate estimator. Shapiro-Wilk normality tests were conducted for each URSPRS item using the shapiro.test function in R, and skewness was examined. Results indicated that all URSPRS items exhibited some degree of negative skew, with means ranging from 2.61 (least skewed) to 4.02 (most skewed). None of the individual items were normally distributed ($p < .05$).

Shapiro-Wilk tests were also conducted for scale-level scores (see Table 6). Results indicated that depression scores were normally distributed ($p > .05$). In contrast, the URSPRS total score, frequency of overt discrimination, frequency of nonreligious microaggressions, stigma consciousness, openness, agreeableness, conscientiousness, extroversion, and neuroticism significantly deviated from normality ($p < .05$). Given these varied distributions, non-parametric tests were used where appropriate in subsequent analyses.

Table 6
Shapiro-Wilk Scale-Level Normality Test Results

Variable	<i>W</i>	<i>p</i> *
URSPRS (Reactions to URSP)	.99	.02
MADE (Overt discrimination)	.90	< .001
MANRIS (Microaggressions)	.82	< .001
RSS-I (Interpersonal R/S struggles)	.85	< .001
SCQ (Stigma consciousness)	.98	.00
CES-D (Depression)	.99	.05
Openness	.95	< .001
Conscientiousness	.98	< .001
Extroversion	.99	< .001
Agreeableness	.97	< .001
Neuroticism	.97	< .001

* p -values less than .05 are assumed to be not normally distributed

Variance inflation factors (VIFs) were calculated for each variable, and all fell well below a common threshold for problematic multicollinearity ($VIF < 5$; Marcoulides & Raykov, 2019). The CFA was performed using the lavaan package for R. Because the data are ordinal (and therefore cannot be assessed for linearity directly), the WLSMV estimator in lavaan was used as it is robust to the non-linear and non-normal nature of the data (Li, 2016).

After many iterations of this scale, consultation with SMEs, and significant model adjustments, a high degree of four-factor model fit was anticipated (H1). Recommended fit statistics (Raykov & Marcoulides, 2010) indicate that the CFI and TLI should be above .9, and RMSEA and SRMR should be less than .10. The four-factor model demonstrated inadequate fit ($\chi^2 (164) = 615.02, p < .001, CFI = .88, TLI = .86, RMSEA = .09, SRMR = .09$) despite extensive prior scale refinement.

Model adjustments

The model was reevaluated for theoretical relevance after the results of the CFA. The Disinterest and Social Acceptance subscales were removed due to their inconsistency with the scale's purpose. They focused more on intellectual interest and external experiences rather than the reactions central to the URSPRS. The items within the Disinterest factor assessed the level of interest that nonreligious people have in religious social interactions rather than their internal feelings or responses to unsolicited religious social persuasion. For example, "I prefer that people keep their religious beliefs to themselves" lacks a reactionary component. Similarly, the items within the Social Acceptance factor focused on external interpersonal experiences that nonreligious people have may encountered. Statements like, "Religious individuals have asked me to defend why I am not religious" refer to the occurrence of events, not the feelings or internal experiences of nonreligious people in response to unsolicited religious social persuasion. The scale specifically measures internal reactions to unsolicited religious social persuasion,

rather than attempting to capture all aspects of the experience a nonreligious person has with such interactions, which likely include a host of additional components.

Adjusted Model Fit

The scale refinement resulted in a focused, 10-item measure composed of the Relational Impact and Discomfort factors. Both a one-factor and two-factor model were tested using the WLSMV estimator. CFA results indicated that the two-variable model ($\chi^2 (34) = 120.31, p < .001$, CFI = .96, TLI = .95, RMSEA = .09, SRMR = .06) demonstrates a stronger fit than a unidimensional model ($\chi^2 (35) = 170.93, p < .001$, CFI = .94, TLI = .93, RMSEA = .11, SRMR = .06). Both CFAs conducted after scale refinement demonstrated improved model fit and stronger theoretical consistency. Model fit indices can be found in Table 7. Factor loadings for the two-factor model can be found in Table 8.

Table 7
CFA Fit Statistics

	4 var. *	1 var.	2 var.
χ^2	615.02	170.93	120.31
p -value (χ^2)	.00	.00	.00
CFI	.88	.94	.96
TLI	.86	.93	.93
RMSEA	.09	.11	.09
SRMR	.09	.06	.06

* 4-factor model CFA (before model adjustments)

Temporal Stability

Pearson's r and weighted kappa values were calculated for items on the URSPRS, the subscales, and the total score to assess temporal stability. Weighted kappa with quadratic weights was used, as this method of determining test-retest reliability is well-suited to ordinal data, which is statistically most appropriate for this data (Kohen, 1968). Pearson's r correlation coefficients were also calculated and are appropriate for continuous data, a common interpretation of scale

data in the field. Weighted kappa and Pearson's r values for all items can be found in Table 8. Most of the individual items demonstrated moderate agreement based on suggested interpretations (Landis & Koch, 1977) of weighted kappa and Pearson's r values. Subscale and total scores demonstrated substantial agreement (Relational Impact: $r = .65$, $K_w = .65$; Discomfort: $r = .67$, $K_w = .68$; composite $r = .73$, $K_w = .72$), especially considering that this measure is not designed for use in a clinical context.

Construct Validity

To assess the URSPRS scores for evidence of convergent and discriminant validity, the correlations between scores on the URSPRS, quantitative scores assigned to the emotional reaction and interpretation responses, and scores on several other extant scales were calculated using the Spearman method. See Table 9 for all scale-level correlations.

Table 8*Standardized Factor Loadings & Test-Retest Reliability for Factors and Individual Items (Pearson's r & Weighted Kappa)*

Factor	Item			r	K_w
Relational		--	--	.67	.68
Impact	When someone close to me tries to convert me to their religion, it negatively impacts our relationship.	.86		.60	.59
	If a friend tried to convert me to their religion, it would hurt my relationship with them.	.83		.62	.61
	Maintaining a close relationship with a very religious individual would be difficult.	.43		.45	.45
	I wouldn't mind if a friend tried to get me involved with their religion. (R)	.52		.38	.38
Discomfort		--	--	.65	.65
	I feel offended when people try to convert me to their religion.			.69	.45
	I feel uncomfortable when people try to convince me to become religious.			.73	.46
	It bothers me when people attempt to convert me to their religion.			.83	.45
	I don't mind receiving religious messages (e.g., emails, texts, cards). (R)			.43	.43
	Religious missionaries make me uncomfortable.			.50	.54
	It makes me angry when people try to preach their religion to me.			.68	.51
Composite				.73	.72

Table 9
Variable Correlations

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. URSPRS Total	--													
2. URSPRS Discomfort	.93***	--												
3. URSPRS Relational	.87***	.64***	--											
4. Emotional Reaction	-.39***	-.36***	-.34***	--										
5. Interpretation	-.31***	-.31***	-.24***	.41***	--									
6. RSS-I	.30***	.30***	.26***	-.2***	-.22***	--								
7. MADE	.25***	.25***	.19***	-.18***	-.19***	.64***	--							
8. MANRIS	.15**	.17**	.08	-.19***	-.11*	.61***	.73***	--						
9. SCQ	.23***	.23***	.19***	-.16**	-.14**	.53***	.47***	.38***	--					
10. Agreeableness	.01	.04	-.03	.03	.05	-.03	.03	.04	-.05	--				
11. Extroversion	-.14**	-.09	-.15**	.16**	.05	-.08	.05	.02	-.03	.09	--			
12. Openness	.12*	.10	.14*	.04	-.01	.15**	.16**	.11*	.07	.19***	.21***	--		
13. Conscientiousness	-.07	-.07	-.07	.04	.05	-.20***	-.04	-.04	-.16**	.36***	.23***	-.04	--	
14. Neuroticism	.12*	.11*	.12*	-.08	-.12*	.19***	.14**	.09	.19***	-.22***	-.28***	.04	-.36***	--
15. CESD-10	.12*	.09	.13*	-.10	-.10	.23***	.22***	.19***	.15**	-.13*	-.30***	.02	-.34***	.64***

H3: Emotional Reactions to Scenario and URSPRS Scores

According to H3, it was predicted that emotional reactions (denoted in Table 9 as “Emotional Reaction”) to a possible instance of unsolicited religious social persuasion would exhibit a negative correlation with scores on the URSPRS. This hypothesis was supported by a moderate negative correlation between emotional reactions and URSPRS scores ($r = -.39, p < .001$). Emotional responses showed a moderate positive correlation with interpretation scores ($r = .41, p < .001$) and small correlations with interpersonal R/S struggles ($r = -.20, p < .001$), frequency of overt discrimination ($r = -.18, p < .001$), frequency of nonreligious microaggressions ($r = -.19, p < .01$), stigma consciousness ($r = -.16, p < .01$), and extroversion ($r = .16, p < .01$) scores.

H4: RSS-I and URSPRS Scores

According to H4, it was predicted that there would be a positive correlation between the experience of conflict and negative interactions with religious/spiritual people or organizations (as measured by the interpersonal subscale of the Religious and Spiritual Struggles Scale (RSS-I; Exline et al., 2014)) and scores on the URSPRS. This hypothesis was partially supported ($r = .30, p < .001$). RSS-I scores had strong positive correlations with frequency of overt discrimination ($r = .64, p < .001$), frequency of nonreligious microaggressions ($r = .61, p < .001$), and stigma consciousness ($r = .53, p < .001$). Small positive correlations were found with neuroticism ($r = .19, p < .001$) and depression ($r = .23, p < .001$), and small negative correlations were observed between RSS-I scores and conscientiousness ($r = -.20, p < .001$).

H5 & H6: Microaggressions, Overt Discrimination, and URSPRS Scores

According to H5 and H6, it was predicted that there would be a positive relationship between URSPRS scores and both the frequency of overt nonreligious discrimination experiences as measured by the Measure of Atheist Discrimination Experiences (MADE;

Brewster et al., 2016) and the frequency of nonreligious microaggressions as measured by the Microaggressions Against Nonreligious Individuals Scale (MANRIS; Cheng et al., 2018). The frequency of overt discrimination and frequency of nonreligious microaggressions were both significantly positively correlated with URSPRS total scores (MADE: $r = .25, p < .001$; MANRIS: $r = .15, p < 0.01$). To determine whether the difference between correlations (.25 and .15) was statistically significant, I performed a Steiger's Z test using the "cocor" package in R. This test revealed that the difference in correlation between frequency of overt discrimination and URSPRS and the correlation between frequency of nonreligious microaggressions was statistically significant ($Z = -2.57, p\text{-value} = .01$). The comparative and statistically significant strength of the correlations did not support the predicted comparative strength, as the frequency of overt discrimination was more positively correlated than the frequency of nonreligious microaggressions with the URSPRS total score.

Frequency of overt discrimination showed a strong positive correlation with frequency of nonreligious microaggressions ($r = .73, p < .001$), while openness ($r = .16, p < 0.01$), neuroticism ($r = .15, p < 0.01$), and depression ($r = .22, p < .001$) had small positive correlations with MADE scores. Similarly, frequency of nonreligious microaggressions scores showed a moderate positive correlation with stigma consciousness ($.38, p < .001$) and small positive correlations with openness ($.11, p < .05$) and depression ($.19, p < .001$).

H7: Agreeableness and URSPRS Scores

According to H7, scores on the URSPRS were predicted to be negatively correlated with agreeableness as measured by the agreeableness subscale on the BFI-2 (Soto & John, 2017). This hypothesis was not supported, as agreeableness scores were not significantly correlated with URSPRS scores ($.01, p > .05$) or any variables other than the personality variables of openness, conscientiousness, and neuroticism.

H8: Extroversion and URSPRS Scores

As a method of demonstrating evidence of discriminant validity, it was hypothesized (H8) that URSPRS scores would not be significantly related to extroversion as measured by the extroversion subscale on the BFI-2 (Soto & John, 2017). This hypothesis was not technically supported as stated, as there was a significant negative correlation between extroversion and URSPRS scores ($r = -.14, p < .001$). However, the magnitude of the correlation was small.

Criterion-Related Validity

H9: URSPRS and Interpretation

As a method of assessing criterion-related validity, it was hypothesized (H9) that scores on the URSPRS would be able to predict how one interprets a potential instance of unsolicited religious social persuasion. According to this hypothesis, lower scores on the URSPRS should predict higher interpretation scores. To test this, I conducted a robust regression using the `rlm()` function in the MASS R package, which employs Huber's M-estimator. This was necessary as the outcome variable (interpretation scores) is not binary but is treated as continuous for the purpose of this analysis. The analysis indicated that URSPRS scores were a significant predictor of interpretation scores ($b = -.34, t = -6.49$), supporting H9.

Since robust regression does not provide a traditional R^2 value, I assessed model fit by computing the pseudo- R^2 value, which is calculated using the ratio of variance explained using the residual standard error (0.84) and the standard deviation of interpretation scores ($SD = 1$). This yielded an approximate explained variance of 29%, suggesting that URSPRS scores account for a meaningful portion of the variance in interpretation scores.

Exploratory Contextualization

H10: SCQ, Interpretation, and URSPRS Moderation Hypothesis

To provide additional context for where the URSPRS fits into broader understandings of stigma and minority stress theory, it was hypothesized that stigma consciousness (as measured by the Stigma Consciousness Questionnaire; Pinel, 1999) would moderate the relationship between URSPRS scores and participants' interpretation of the vignette. A robust regression analysis was conducted using the `rlm()` function. Predictors were entered hierarchically: URSPRS scores and stigma consciousness were entered in the first step, followed by their interaction term in the second step. Based on the results of this regression, H10 was not supported. URSPRS scores significantly predicted interpretation scores ($b = -0.78$, $t = -6.12$). However, stigma consciousness was not a significant predictor of interpretation scores ($b = 0.11$, $t = -1.49$), nor was the interaction term ($b = -0.07$, $t = -0.72$), indicating no evidence of moderation.

Post-Hoc Analyses: Multiple Linear Regression and Mediation Analysis

A post-hoc robust multiple linear regression, including the primary measures of interest, was performed in R using the `rlm()` function. After performing the regression, variables that significantly contributed to variance in URSPRS scores were interpersonal religious/spiritual struggles (RSS-I: $b = .22$, $t = 3.49$), experiences of overt discrimination (MADE: $b = .29$, $t = 4.38$), experiences of microaggressions (MANRIS: $b = -.24$, $t = -2.85$), and stigma consciousness (SCQ: $b = .07$, $t = 2.33$). Similarly to the process of testing H9 and H10, I assessed model fit by computing the pseudo- R^2 estimate value. This yielded an approximate explained variance of 23%, suggesting that these predictors account for a meaningful portion of the variance in URSPRS scores (see Table 10).

Table 10*Multiple Linear Regression on URSPRS Scores*

Predictor	<i>b</i>	<i>SE</i>	<i>t</i> value
(Intercept)	3.41	0.03	124.26
RSSI	0.22	0.06	3.49
MADE	0.29	0.07	4.38
MANRIS	-0.24	0.08	-2.85
SCQ	0.07	0.03	2.33
Pseudo- $R^2 = 0.23$			

After performing the regression analysis, I examined the unexpected direction of the regression coefficients for frequency of overt discrimination (MADE) and frequency of nonreligious microaggressions (MANRIS). In independent robust linear regressions, each variable was a significant positive predictor of URSPRS scores (overt discrimination: $b = .32$, $t = 7.94$; nonreligious microaggressions: $b = .28$, $t = 5.15$). Given that I had already checked for multicollinearity and found no concerning issues, I explored the possibility of a mediation effect. I conducted a nonparametric mediation analysis using 5,000 bootstrapped confidence intervals (which do not assume normality) via the "mediation" R package. The results (see Table 11 or Figure 1) indicated that, when controlling for frequency of overt discrimination, frequency of nonreligious microaggressions was no longer a significant predictor of URSPRS scores. This suggests that overt discrimination mediates the relationship between nonreligious microaggressions and URSPRS scores.

The estimated mediation effect size was 1.47 ($p < .001$). Standardized mediation effects typically range from 0 to 1—where 0 indicates no mediation and 1 indicates complete mediation. A value greater than 1 suggests a suppression effect, likely due to the high correlation between overt discrimination and nonreligious microaggressions. This suppression effect implies that,

when both variables are included, the unique contribution of nonreligious microaggressions to URSPRS is masked by the shared variance with overt discrimination.

Table 11
Mediation Analysis

Effect	Est.	95% CI		<i>p</i>
		LL	UL	
Indirect Effect	0.04	0.28	0.54	< .001 ***
Direct Effect	-0.13	-0.29	0.04	.12
Total Effect	0.28	0.18	0.38	< .001 ***
Proportion Mediated	1.47	0.89	2.48	< .001 ***

Indirect Effect: MANRIS → MADE → URSPRS; Direct Effect: MANRIS → URSPRS, controlling for MADE; Total Effect: MANRIS → URSPRS, without controlling for MADE

Figure 1
Mediation Model

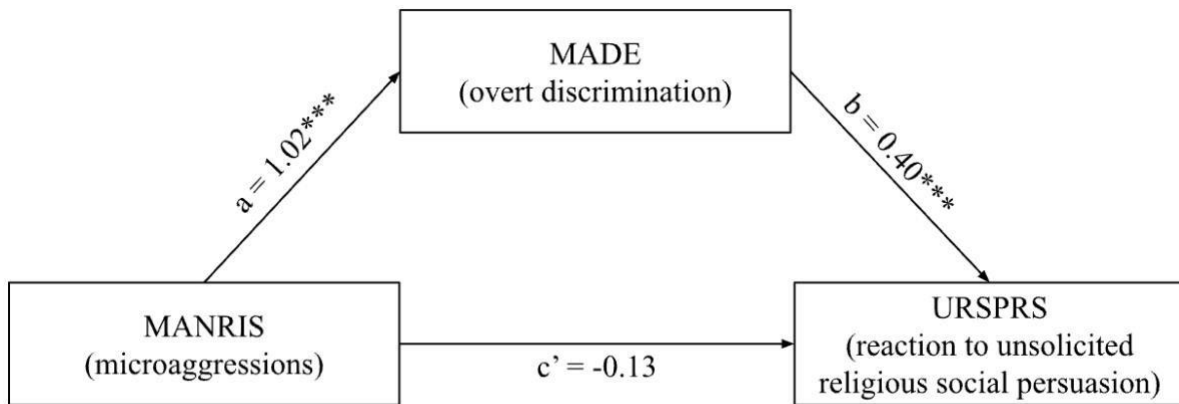


Table 12*Hypotheses Summary and Conclusion Table*

	Hypothesis	Test Statistic(s)	Sig.	Conclusion
1	Strong model fit, with four factors (disinterest in religious social interactions, relational impact, social disapproval, and discomfort)	χ^2 615.02 CFI = .88 TLI = .86 RMSEA = .09 SRMR = .09	$(\chi^2) p < .05$	Unsupported
2	Strong test-retest reliability	Discomfort Kw: .68 Relational Kw: .65 Total Kw = 0.72	Z = 9.47 Z = 9.06 Z = 10.08	Supported
3	Higher scores on URSPRS, more negative emotional reaction to scenario (negative)	$r = -.39***$	$p < .001$	Supported
4	Higher scores on URSPRS, higher scores on interpersonal subscale of Religious and Spiritual Struggles Scale (positive)	$r = .30***$	$p < .001$	Supported
5	Higher scores on URSPRS, higher frequency of overt discrimination (moderate positive)	$r = .25***$	$p < .001$	Partial Support (Direction Supported, Strength Unsupported)
6	Higher scores on URSPRS, higher frequency of microaggressions (strong positive)	$r = .15***$	$p < .001$	Partial Support (Direction Supported, Strength Unsupported)
7	Higher scores on URSPRS, lower score on agreeableness (negative)	$r = .01$	n.s.	Unsupported
8	No correlation between scores on URSPRS and extroversion	$r = -.14**$	$p < .01$	Unsupported
9	URSPRS scores predict scenario interpretation scores (negative relationship)	$r = -.31***$	$p < .001$	Supported

10	Stigma consciousness moderates the relationship between URSPRS and interpretation (higher stigma consciousness strengthens relationship)	Interaction coefficient $b = -0.07$	$t = -0.72$ Unsupported
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Qualitative Observational Results

The explicit purpose of collecting qualitative data in this study was to transform and examine quantitative properties (e.g., valence) for the purpose of establishing criterion-related validity of the URSPRS scores. Thus, no formal method of content analysis was performed. However, consistent with best practices in qualitative research (Yeh & Inman, 2007), each coder kept a reflective log of patterns they noticed either in the qualitative data or their personal coding experience. It would be inappropriate to describe the coder's observations as "results" in the strictest sense (considering the lack of content-specific analytics). These observed patterns do, however, provide richness and texture to the data.

Emotional Reaction

The coders noted several patterns in the way participants described their emotional reactions. Each coder noted that many responses to the emotional reaction prompt did not refer to emotions. Some participants responded with their behavioral reaction, such as one participant who responded:

I would tell him if I have the time then maybe I will go but I cannot make a promise. I would do this to not hurt his/her feelings because I value our friendship and their opinion but it would be something I need to consider.

These responses, as noted in the instructions for the coders, received zeroes. If all the participants had identified their emotions rather than their anticipated behavior or cognitive processes, there may be a stronger relationship between URSPRS scores and scores on the emotional reaction question. Furthermore, some participants stated that their emotional reaction would be different if this were the first time the friend had asked:

I would say no and as long as it's the end of it we'd be cool. But if they keep asking and try to pressure me then I would lose respect for this person moving forward.

Feelings relating to speculation did not receive positive or negative scores, as they were not in response to the situation, regardless of the additional context the participant provided.

Interpretation

All three coders noted experiencing difficulty in assigning numerical scores to a common type of response to the interpretation question. Many participants noted that they would interpret the interaction as positive (e.g., a friendly invitation) or negative (e.g., as an implication that something is wrong with them) in the same response. One participant wrote,

I would either interpret it as a friend that is just trying to share something that they love and care about with me or someone that doesn't respect my beliefs and thinks that I am somehow in the wrong.

The participant provides no indication of what they would feel more inclined towards or any mention of what they would interpret in the moment. Without additional information, these responses were given a score of zero, not as a reflection of neutrality but rather as a canceling out of positive and negative sentiment. Statements that provided both positive and negative sentiment without any indication of strength or preference, therefore, received the same score as completely neutral responses, such as one respondent that interpreted the situation as "just an invitation."

Participants also frequently noted that their interpretation would depend on their relationship with the sender. For example, one participant stated:

Depending on the person it could be a "there's gonna be this fun thing that's going to happen and you should be there," or it could be a "you need to come with me." For me it all depends on the person.

These patterns were based on coder notes and observations of challenges assigning a numerical score to a response.

All three coders noted that they struggled with biases, especially in coding the interpretation responses. Specific terms may have been interpreted as neutral by a dictionarybased sentiment analysis tool or as positive by a religious person. A notable example of this was the term "convert." Many of the responses that included this term were overtly negative:

I would interpret the sender's intentions as trying to convert me to their religion, and impose their belief system and morals upon me. I would also take it as a sign of disrespect that they are not willing to let me hold my own beliefs. I think they would view it as trying to save me, or help me through a means of religion, and that is probably their intention, but I would interpret it as them trying to force something I do not want upon me.

This response clearly deserved a negative score. However, some responses used this term without a clear denotation of positivity or negativity:

I would interpret it as them trying to subtly get me to convert to their religion. If they knew I wasn't religious yet still wanted me to go, I would think it would be to make me more interested in converting.

All three raters gave this response a negative code, despite its linguistic and technical neutrality, evincing clear bias.

DISCUSSION

This study aimed to further develop and establish psychometric support for the URSPRS by assessing model fit, examining construct and criterion-related validity, and placing URSPRS scores within a nomological network of related constructs. As many of the scales utilized are relatively new and have yet to be fully validated in research, a secondary purpose was to add to the validation literature for other scales used in the study. Results from this study, particularly the insights into the factors influencing URSPRS scores, contribute significantly to the literature on this and adjacent constructs and provide an important basis for further research in this area. The study established strong support for some hypotheses, mixed support for others, and no support for several. Overall, the results provide increased insight into the nonreligious experience of unsolicited religious social persuasion and its relationship with other constructs.

Model Fit & Scale Adjustments

During the confirmatory factor analysis stage, two of the four anticipated factors—Disinterest and Social Acceptance—were removed. This was due to their misalignment with the scale's core purpose, which was to measure reactions to unsolicited religious social persuasion. Disinterest items assessed interest in engagement with religious interactions, and Social Acceptance items focused on external and interpersonal events. While relevant, neither directly reflected the internal reactions to unsolicited religious social persuasion.

This adjustment essentially made Hypothesis 1, which predicted a good fit for the original four-factor model, irrelevant. The model fit and conceptual concerns prompted a necessary re-evaluation of item relevance. Although disinterest and social acceptance may

impact how someone ends up reacting to unsolicited religious social persuasion, they are not inherent aspects of the reaction itself.

Test-Retest Reliability

The results of the test-retest reliability analysis demonstrated that the overall URSPRS score has substantial temporal stability ($r = .73$, $Kw = .72$) and the subscales (Discomfort $r = .65$, $Kw = .65$, Relational Impact $r = .67$, $Kw = .68$) have moderate temporal stability over a period of 31 (± 2) days. These are considered acceptable for psychometric purposes at this stage (Landis & Koch, 1977). Test-retest reliability values for individual items were, naturally, lower than subscale and total scale scores. These weighted kappa and Pearson's r values suggest that, while a nonreligious person may vary more in their perception of their discomfort regarding unsolicited religious social persuasion or the relational impact of unsolicited religious social persuasion, their overall emotional reactions to unsolicited religious social persuasion are fairly consistent over a one-month period.

Although the URSPRS questions were presented toward the beginning of each survey (thereby eliminating the possibility that items from other measures would influence responses on the URSPRS), various external factors may create a difference in URSPRS scores over time. One of the most significant influences is likely the recency in which someone has experienced unsolicited religious social persuasion. For instance, if one were to complete this survey directly after a highly negative or offensive unsolicited interaction with a stranger about their lack of belief, that experience would probably increase their perceptions of their discomfort regarding unsolicited religious social persuasion. Conversely, suppose one were to interact with a close friend about religion in a way that was positive or healing. In that case, they may perceive unsolicited religious social persuasion to have a more positive influence on their relationships.

Such external factors are, of course, uncontrollable and should not be expected to influence URSPRS scores in a systematic way when examined within a population.

Construct Validity

This study provided inconsistent evidence for construct validity.

URSPRS and Discrimination Experiences

Two hypotheses (H5 and H6) suggested that frequency of overt discrimination and frequency of nonreligious microaggressions would be positively correlated with scores on the URSPRS. Furthermore, these hypotheses anticipated that the correlation between the frequency of nonreligious microaggressions and URSPRS scores would be higher than between the frequency of overt discrimination and URSPRS scores. These hypotheses were based on existing studies within the minority stress theory literature, which indicate that microaggressions may, over time, have a more significant impact on one's mental well-being than overt discrimination experiences (Lui, 2020).

Though both correlations were relatively low (MADE: $r = .25$, MANRIS: $r = .15$), frequency of overt discrimination was correlated more strongly with URSPRS scores. While the absolute difference between correlations is small, it may indicate that participants experience stronger negative feelings about unsolicited religious social persuasion if they can better recall experiences in which discrimination was overt and explicit. For example, a memory of being told that one is going to hell for their beliefs (overt and explicit discrimination) during an instance of unsolicited religious social persuasion may come to mind more readily than a more subtle circumstance that could be interpreted as positively intentioned. It is important to recall that items on the URSPRS are precisely worded to be either theoretical (e.g., "If a friend tried to convert me to their religion, it would hurt my relationship with them") or general ("I feel

offended when people try to convert me to their religion") and unspecific to any particular instance of unsolicited religious social persuasion.

Incorporating the results from the post-hoc mediation analysis paints a more complex picture. Because there were no concerns regarding multicollinearity, the high correlation between the frequency of nonreligious microaggressions and the frequency of overt discrimination is likely the driving influence behind the repression effect. This indicates that the frequency of nonreligious microaggressions and frequency of overt discrimination compete for explanatory power over URSPRS scores, with the frequency of overt discrimination emerging as the more powerful predictor. When examining the specific items within each scale, it is difficult to determine the extent to which they are measuring meaningfully different types of discrimination experiences that nonreligious people face. The main difference between items on these scales is the framing. The items on the MANRIS (frequency of nonreligious microaggressions) are phrased in a more passive way, identifying things that others have done in relation to a nonreligious first person, whereas items on the MADE (frequency of overt discrimination) identify specific experiences that a nonreligious first person has experienced. However, despite the semantic-level differences, the practical understanding of many of the items seems to be nearly identical.

For example, an item on the MANRIS is "others have assumed I have no morals because of my lack of religion," and an item on the MADE is "I have been told that, as a [nonreligious] person, I cannot be a moral person." Another pair is as follows: "Others have assumed that I would be selfish because of my lack of religion (MANRIS)" versus "I have been told that I am selfish because I am [nonreligious] (MADE)." The utility of these minor differences is

questionable—one would endorse the item “others have assumed that I would be selfish because of my lack of religion” if they “have been told that [they are] selfish.”

Both scales have independently demonstrated strong evidence of validity and reliability (Coleman & Jong, 2020) but no known studies have yet compared the two empirically. This study may indicate construct redundancy between the MANRIS and MADE and, on a broader level, a lack of distinction between overt discrimination against nonreligious people and microaggressions against nonreligious people.

URSPRS and Personality

One convergent validity hypothesis (H7) proposed that scores on the URSPRS would be significantly negatively correlated with agreeableness—a personality trait often associated with interpersonal harmony (Soto & John, 2017). This hypothesis was based on the understanding that scores on the URSPRS are, at some level, measuring reactions to a (very specific type of) interpersonal disagreement. If that is the case, it would be reasonable to assume that more agreeable people are more accommodating to those attempting to engage them in religious persuasion. A possible explanation for this lack of significant correlation may be the fact that agreeableness focuses on interpersonal interactions and social harmony, which do not always reflect the true internal experience of the person. Feeling discomfort with unsolicited religious social persuasion does not necessarily mean that one communicates that discomfort. Agreeableness would likely be significantly related to the way people externally and interpersonally react to unsolicited religious social persuasion, which the URSPRS did not measure.

H8 suggested that extroversion would be uncorrelated with URSPRS scores. This hypothesis was not entirely supported, as extroversion demonstrated a slight negative correlation

with URSPRS scores ($r = -.14, p < .01$). This correlation is driven by the relationship between extroversion and scores on the Relational Impact subscale ($r = -.15, p < .01$), as the correlation between the Discomfort subscale and extroversion was insignificant. The slight negative relationship between the relational impact of unsolicited religious social persuasion and extroversion may reflect a tendency for extroverts to have wider social circles. Experiences of unsolicited religious social persuasion may not phase an extrovert with a large group of friends. A less extroverted person may feel that unsolicited religious social persuasion is more significant and damaging, as less extroverted people tend to have fewer friends than more extroverted people (Kang, 2023). However, this relationship requires further validation testing and replication, given its small magnitude.

Openness and neuroticism scores were correlated with URSPRS scores, each with a correlation coefficient of .12 significant at the $p < .05$ level. The marginal relationships between personality factors and scores on the URSPRS suggest that a person's emotional reaction to unsolicited religious social persuasion is minimally related to any of the various aspects of their personality. Importantly, these small or insignificant correlations between personality variables and URSPRS scores indicate that, at least for the nonreligious people in this study, differences in reactions to unsolicited religious social persuasion are not due to inherent personality traits. Rather, scores likely vary because of participants' lived experiences and how they interpret and integrate those experiences.

Imagined Scenario and Sentiment Analysis

The imagined scenario presented a relatively neutral instance of potential unsolicited religious social persuasion. Ideally, this encouraged participants to project their interpretations of the situation and indicate a baseline of emotional reaction. Furthermore, incorporating an

alternative data format can help mitigate common method variance, a frequent limitation of extended self-report surveys. Requiring respondents to adjust their response style throughout the survey reduced the likelihood of variance originating from patterns that participants develop when responding to similarly formatted questions.

The emotional reaction question was developed to fill the significant gap between the measures utilized and the purpose of the URSPRS. None of the measures used to assess construct validity aimed to capture emotional reactions to specific experiences. The MADE, MANRIS, and RSS-I were created to identify the frequency of particular experiences or events, and the SCQ was directed at one's awareness of stigmatization. The question regarding one's emotional reaction to the imagined scenario was designed to measure a very similar variable to the URSPRS.

The interpretation question was developed to determine if the URSPRS had the kind of predictive power that I anticipated. Because the scenario was presented at T1 and not T2, the interpretation item was used as a proxy for how participants may interpret a future scenario. This question was both an imperfect method and the most conceptually appropriate way to determine criterion validity when the study was conducted. As indicated by the results, scores on the URSPRS could somewhat predict interpretation scores. While asserting that this will replicate in a more ecologically valid study is impossible, this provides a sound basis for demonstrating criterion validity.

Compared to the emotional responses, the interpretation responses were, on average, more positively valenced than the emotional responses. This difference may indicate that participants do not cognitively interpret the situation as negatively as they emotionally experience it. This pattern may also reflect the experience of rationalization that marginalized

people use to cope with microaggressions, even if the rationalization does not match with feelings of invalidation (e.g., Nadal et al., 2014). The correlation between scores on the emotional response and scores on the interpretation ($r = .41, p < .001$) indicates a significant relationship between the affective and cognitive reactions. The directionality is impossible to determine from this study. Existing research does indicate, however, the significant role that cognitive appraisal plays regarding the stress that microaggressions cause (King, 2005).

Significant coder bias in this study was both a strength and weakness of the semantic analysis of the qualitative responses. There is research, mainly in the machine-learning literature, that indicates the identities of the raters/coders influence the perception of qualitative data, especially when attempting to interpret information that may be viewed as discriminatory or offensive. In a 2022 study, identity-specific groups of coders (African American, LGBTQ, both, and neither) annotated toxicity in online comments. These annotations were used to develop a machine-learning model. Annotator identity was significantly related to the toxicity ratings and influenced model detection of toxicity (Goyal, 2022). In 2020, informatics researchers from TU Munich (Kuwatly, 2020) had different demographic groups annotate social media posts for hate speech. These annotations were used to train machine learning models. The researchers found that the data annotators' demographic characteristics significantly influenced machine learning models' annotations of hate speech.

While the coders in this study were not acting as data annotators for machine learning models, the machine learning research demonstrates how identity-based characteristics influence interpretation. Each coder aimed at being relatively unbiased in their quantitative score assignment. The identity congruence between the coder and participant ideally improved the fidelity of the codes to the original participant responses.

Microaggressions and Unsolicited Religious Social Persuasion

One of the core questions I had regarding the way nonreligious people experience unsolicited religious social persuasion was whether the action fits within our understanding of microaggressions. Based on my results, experiencing discomfort and negative relational impacts explain some of the ways that nonreligious people may experience unsolicited religious social persuasion. Furthermore, the strength of reactions to unsolicited religious social persuasion was positively correlated with both experiences of overt discrimination and experiences of nonreligious microaggressions. Of course, reactions to unsolicited religious social persuasion do not, by definition, mean that unsolicited religious social persuasion is a microaggression. It does, however, provide a strong indication of how a marginalized group of individuals feels in response to a certain type of interaction from their privileged counterparts. This provides evidence that it is appropriate to examine unsolicited religious social persuasion within a microaggression framework.

Microaggressions are defined by Sue et al. (2007) as “brief and commonplace daily verbal, behavioral, and environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults to the target person or group” (p. 273). Unsolicited religious social persuasion is an identity-based, targeted action. It must target a person who is either known to be of a different (or no) faith/denomination/religious identity (or who is assumed to be of a different (or no) faith/denomination/religious identity). Otherwise, there would be nothing to try to persuade. This means that unsolicited religious social persuasion occurs in response to someone’s identity (perceived or known).

Persuasion vs. Microaggression

As described in the literature review, the element of choice seems to add an additional dimension to the consideration of unsolicited religious social persuasion as a microaggression. There is no element of persuasion in many of the common microaggressions that occur regarding involuntary identities, such as race and gender, as those identities do not involve any aspect of choice (though the decision to communicate those identities can involve choice). If choice is a part of the identity or the identity expression, unsolicited persuasion regarding those choices can become a microaggression. Consider the following:

1. Is persuading someone to buy a mug that they don't particularly want a microaggression?
Most would easily say that no; this is an attempt to sell a product.
2. Is persuading a darker-skinned Asian woman to buy a skin-lightening product a microaggression? Yes—this clearly fits within the microaggression framework—it is an identity-based indignity that communicates a derogatory attitude toward people with that identity.
3. If a person who has chosen to be single asks their married friend to try and persuade them to find a partner, is it a microaggression for the married friend to persuade them to find a partner? No—the single person solicited persuasion. This is an interaction between people with different identities, but it does not inherently communicate any sort of derogatory perceptions.
4. Finally, imagine that a co-worker mentions in conversation that she is childfree-bychoice. After finding this out, another co-worker attempts to persuade her that she will regret this decision and that she should have children. Is this a microaggression? Yes—trying to persuade someone that they will regret a chosen identity (without being asked)

communicates that there is a preferred identity (being a parent) and an undesirable identity (being childfree). The co-worker's unsolicited persuasion implies a hierarchy of value.

- a. What if the co-worker attempting to persuade this woman is someone who used to be childfree, but then decided to have children and found that her life was dramatically improved by becoming a parent? Regardless of past experiences, this action still communicates a derogatory perspective of the childfree identity.
- b. What if we could confirm, beyond a reasonable doubt, that the persuader's intentions were good, and she genuinely wanted what was best for the person she was trying to persuade? Regardless of intent, the action communicates a derogatory perspective of the childfree identity. Additionally, intent is not factored into the classification of a microaggression (Sue et al., 2007).

This last scenario most closely matches unsolicited religious social persuasion. URSP suggests a preferred identity (being religious) and an undesirable identity (being nonreligious), regardless of whether the religious person's intentions are hostile, kind, based in hatred, or based in love. As Sue et al. noted,

microaggressions (a) tend to be subtle, indirect, and unintentional, (b) are most likely to emerge not when a behavior would look prejudicial, but when other rationales can be offered for prejudicial behavior (2007, p. 278)

When describing their interpretation of the ambiguous scenario, for example, one participant expressed:

I think that the sender's intention would come from a place of love. although I don't think the sender would consider how it would make me feel, or the position it would put me in[.]

Considering the way that unsolicited religious social persuasion indicates being nonreligious is undesirable identity, regardless of intent, demonstrates that the action extends beyond the limits of ordinary persuasion and into the territory of microaggressions.

Emotional Component of Microaggressions

One of the hallmarks of microaggressions is the way they create discomfort and psychological conflict for the marginalized person due to the microaggression seeming “vague or disguised” (Sue et al., 2007, p. 277). Sue et al. identify that, after a microaggression has occurred, the marginalized person may feel confused regarding the intention and conflicted about their response. Several participants expressed this kind of conflict:

It would make me feel a little uncomfortable. I know they likely mean well, but it also feels like my lack of religious belief is being disrespected, especially if they already knew. I'd probably feel a little angry on instinct.

Another participant noted:

This text would make me feel uncomfortable as a close friend would know I was nonreligious. This could confuse me on the intent to what they wanted to do as they might have alternative motives to the text. This would make me wonder why they are actually bringing up church in general as they may practice but I don't.

However, we cannot make claims about the frequency of this type of experience, as it is beyond the scope of this study.

The Taxonomy of (Non)religious Microaggressions

Unsolicited religious social persuasion fits the definition of microaggressions as “brief and commonplace daily verbal, behavioral, and environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative [identity-based] slights and insults to the target person or group” (Sue et al., 2007, p. 273). This leads to the question of where it fits into the current taxonomy of religious microaggressions. As stated in the literature review, Nadal et al. (2010) developed a taxonomy for religious microaggressions based on Sue’s taxonomy of racial microaggressions. Nadal et al.’s taxonomy includes 1) endorsement of religious stereotypes, 2) exoticization, 3) pathology of different religious groups, 4) assumption of one’s own religious identity as the norm, 5) assumption of religious homogeneity, and 6) denial of religious prejudice (Nadal et al., 2010, p. 297). Cheng et al. (2018) adapted this taxonomy to create the Microaggressions Against Nonreligious Individuals Scale (MANRIS), which was used in this study. In the development of that scale, the authors identified the categories of 1) assumption of inferiority, 2) denial of non-religious prejudice, 3) assumption of religiosity, 4) endorsing nonreligious stereotypes, and 5) pathology of a nonreligious identity (Cheng et al., 2018, p. 4).

I propose a new taxonomy that can be applied to identities that are perceived to be chosen (regardless of whether it is actually chosen). This taxonomy includes the unsolicited persuasion of that person to change what is viewed as an undesirable identity. This broader taxonomy for chosen identities would include 1) endorsing stereotypes about chosen identity, 2) denial of prejudice against chosen identity, 3) assumption of shared chosen identity, 4) pathology of chosen identity, 5) assumption of chosen-identity inferiority, and 6) persuasion to choose a different identity (see Fig. 2). This taxonomy could apply to identities that are actually chosen

(e.g., being childfree-by-choice) or identities that are perceived to be chosen but are not (e.g., “choosing” to be gay or “choosing” to be transgender).

Sue et al.’s (2007) work on microaggression taxonomies proved to be an invaluable foundation for microaggressions research and has inspired a variety of expansions (Williams et al., 2021), intersectional research (e.g., Nadal et al., 2015), and alternative conceptualizations (e.g., Harm-Based Account of Microaggressions, Freeman & Stewart, 2021). However, because Sue et al.’s taxonomy was developed to classify racial microaggressions, it may have inhibited considerations of how volition impacts the types of microaggressions one can experience.

Microaggression taxonomies are not set in stone and should be adapted to the unique features of different identities. While Nadal et al. (2010) and Cheng et al. (2018) elucidate many significant types of microaggressions experienced by religious minorities and nonreligious people respectively, their adaptations were likely similarly constrained by previous work on immutable identities (such as gender, race, or sexuality). My taxonomy indicates a type of microaggression that is exclusive to chosen (or perceived to be chosen) identities.

Figure 2

Progression of Microaggression Taxonomies

Sue et al. (2007): Racial Microaggressions (in the US)	Nadal et al. (2010): Microaggressions Against Religious Minorities	Cheng et al. (2018): Microaggressions Against Nonreligious Individuals	Underill (2026): Microaggressions Against Chosen Identities
• Ascription of intelligence • Criminality/assumption of criminal status • Color blindness • Denial of individual racism • Alien in own land • Environmental microaggressions • Pathologizing cultural values/communication styles • Second-class citizen • Myth of meritocracy	• Endorsement of religious stereotypes • Denial of religious prejudice • Assumption of one's own religious identity as the norm • Pathology of different religious groups • Assumption of religious homogeneity • Exoticization	• Endorsing nonreligious stereotypes • Denial of nonreligious prejudice • Assumption of religiosity • Pathology of a nonreligious identity • Assumption of inferiority	• Endorsing stereotypes • Denial of prejudice • Assumption of shared chosen identity • Pathology of undesirable identity • Assumption of inferiority • Unsolicited persuasion to choose a different identity

At the very least, authors of scales like the MANRIS (which identifies specific types of nonreligious microaggressions) should consider the inclusion of unsolicited religious social persuasion in their conceptualization of nonreligious microaggression experiences. This scale, like most scales, likely misses certain aspects of this type of complex phenomenon. However, this scale contributes a strong starting point for the ongoing understanding of nonreligious experiences and the significance of chosen marginalized identities. There has never been a scale that attempts to measure this type of experience. Without it, the field may go on to ignore the impact of unsolicited religious social persuasion and the need to expand our understanding of microaggressions.

Limitations and Future Directions

Foundational Work

Although the present study has many strengths, its results should be interpreted in light of the following limitations, each of which points to promising future research directions. A crucial next step in this research is determining the frequency of unsolicited religious social persuasion. This includes understanding the types of unsolicited religious social persuasion and how frequency is impacted by demographic factors. This study gave significant evidence that some nonreligious people experience unsolicited religious social persuasion and are impacted by it but provides no solid indication of frequency.

Additionally, a better understanding of the construct is essential before continuing with the URSPRS. The two-factor model demonstrated a strong fit. The mixed results regarding anticipated relationships with related variables, though, indicate that reactions to unsolicited religious social persuasion contain additional content. For example, there may be an emotional

component not captured by the emotions identified within the Discomfort subscale, such as heightened sensitivity to certain types of unsolicited religious social persuasion.

The qualitative responses demonstrated a mixture of feelings, both positive and negative, towards an instance of potential unsolicited religious social persuasion. This may indicate that reactions to URSP are far more complex than initially anticipated. A focus on qualitative data approaches would be most appropriate in response to potential construct underrepresentation (Spurgeon, 2017). A stronger theoretical foundation can be built through phenomenological or grounded theory methods (Smith et al., 2015). Item refinement and factor structures will remain insufficient until the conceptual basis is demonstrably sound.

Demographics

The demographic profile of nonreligious people in the U.S. does not match that of the participants in this study. This is a significant limitation in any study aimed at generalizability to a broader population. The study's sample overrepresented women (who constitute approximately 47% of nonreligious U.S. adults), was more white (who represent around 63% of nonreligious U.S. adults), skewed younger than the general nonreligious population (compared to the 41% of nonreligious U.S. adults who are between ages 30 and 49), and underrepresented individuals without a college education, who make up approximately 29% of nonreligious U.S. adults (Pew Research Center, 2025). This demographic limitation is particularly significant for this topic due to the critical role of societal context and the influence of intersectionality. There is a wide variety of evidence that supports the influence of intersectional identities on discrimination experiences (Hempeler et al., 2024), types of stereotypes encountered (Lewis et al., 2016), cognitive appraisal (Wang et al., 2023), and vulnerability to psychological stressors (Jackson et al., 2020; Uzcátegui, 2024).

One factor that impacts discrimination experiences is geographic region. Cragun et al. (2012) noted that, in the United States, "age, region of the country, rural versus urban location, parents' religious identifications, educational attainment, ethnicity and race" were all significant predictors of experienced nonreligious discrimination (p. 105). Additionally, non-Christian people are more likely to experience workplace discrimination in the South and Northeast regions when compared to the Western region of the United States (Cragun et al., 2012).

Moreover, all of the participants surveyed in this study were living in a Christianmajority nation (Grammich et al., 2023). The generalizability of these results outside the U.S. is limited by religion and denomination to an unknown extent. Results could differ between regions with differences in denominations of the same religion or contexts with a different majority religion altogether. The main contributing factors may include differences in attitudes towards unsolicited religious social persuasion, perceptions of and assumptions about nonreligious people, and perceived moral obligations towards nonreligious people.

Considering the results of this study, the URSPRS should be validated in more diverse, more representative groups of nonreligious people and different religious/nonreligious contexts. The ongoing expansion of research and measurement focused on nonreligious people also presents a significant opportunity for the construct to be included in a broader nomological web. While this study provided some contextual basis for understanding, it remained limited in scope. Future studies could also expand in methodology in order to explore additional dimensions of the nonreligious experience, including longitudinal research to examine how nonreligious reactions to unsolicited religious social persuasion change with time or observational studies of nonreligious people responding to real experiences of unsolicited religious social persuasion (as opposed to an imagined scenario).

This study did not incorporate developmental or longitudinal considerations. Alongside other intersectional considerations, one's stage of identity development may play a significant role in how one reacts to unsolicited religious social persuasion. Moving forward, an important direction to consider would be the incorporation of the URSPS into studies of (non)religious identity development. Findings from such research may identify stages at which one is particularly sensitive to instances of unsolicited religious social persuasion, or stages at which unsolicited religious social persuasion does not produce strong reactions.

Measures

With the exception of the test-retest component (which was measured solely for the URSPRS), the data was completely cross-sectional and largely measured through Likert-style scales. To prevent priming, the imagined scenario short-response questions were placed at the beginning of the survey. While the variance in question type aimed to reduce common method variance, the placement of these items resulted in a large section of repetitive survey items. Therefore, much of the data is likely still subject to common method variance.

There was a concern regarding the personality measure used in the study. While each of the five personality domains measured by the BFI-2 demonstrated good levels of reliability (Agreeableness: $\alpha = .79$, $\omega = .82$; Extroversion: $\alpha = .85$, $\omega = .89$; Openness: $\alpha = .81$, $\omega = .85$; Conscientiousness: $\alpha = .84$, $\omega = .87$; Neuroticism: $\alpha = .88$, $\omega = .90$), the overall factor structure of the BFI-2 suggested extremely poor fit (CFI = .65, TLI = .64, RMSEA = .07, SRMR = .09). This raised concerns about the scale's suitability for this study. Replications of this study would benefit from including alternative personality measures to validate the relationships between URSPRS scores and personality variables demonstrated in this study.

The two measures of nonreligious discrimination experiences and microaggressions also raised concerns. Both demonstrated lower fit statistics than anticipated. The fit statistics reflect unidimensional models because a general factor was used for analyzing scores on the MADE and MANRIS. Using the original factor structure proposed by the scale's authors may have improved fit indices. However, as the authors indicated insufficient evidence for the use of individual factors, the general factor was considered the most appropriate for interpretation (Cheng et al., 2018; Brewster et al., 2016).

Additionally, the relative utility of the MADE and MANRIS should be compared in further validation research. As indicated by the post-hoc mediation analysis, additional differentiation is needed between the constructs of overt nonreligious discrimination experiences and microaggressions against nonreligious people. Because nonreligious people are relatively newcomers to the discrimination literature, there is minimal discussion of the covert discrimination experiences of nonreligious people. This may be because nonreligious identities are concealable and, therefore, are less likely to be referenced obtusely (such as through questions like “Where are you *really* from?”, an example of an obtuse reference to race/ethnicity).

Qualitative Data

The collection of qualitative data and its subsequent conversion into quantitative data also present significant limitations. Nuance is lost when assigning numerical values to qualitative data, regardless of the method utilized (de Block & Vis, 2018). Responses may have received a different value if participants had been prompted to provide more context or explain certain parts of their responses. Although the MAD and ICC scores indicated strong inter-rater agreement, the

rating process involved significant subjective judgment. For example, it may be unclear at what point a -2 response becomes a -3 response.

Using a lexicon-based algorithm to assign scores (e.g., any time the word “discomfort” was used, the scores would decrease by 0.75, regardless of additional context) would have likely increased the reliability of the data analysis. However, concerns regarding the validity of that analysis structure on informal qualitative data may outweigh potential reliability benefits. At this point in time, there is not enough evidence to suggest that algorithms or even generative AI models are sensitive and accurate tools with regard to the interpretation of informal qualitative data (Hartmann et al., 2023).

Additional research should be done to examine the extent to which the identities of the coding team impact how responses are perceived and subsequently rated. Identities that may impact the data include whether one identifies as nonreligious or religious, what type of religious background one comes from, the extent to which one has experienced unsolicited religious social persuasion, and the current religious environment in which one currently resides. The investigation of identity impacts on coder ratings is necessary for future population-specific response coding and should expand beyond the limited realm of machine-learning research.

Also, the scenario was imagined. Participants were asked to guess the way they *would* feel and the way they *would* interpret this situation in the real world. However, there is no evidence regarding the ecological validity of these responses. Participants generally tend to paint themselves in a better light when responding to questionnaires or interviewers, especially when a particular type of response is considered more socially desirable (e.g., Van de Mortel, 2008).

Participants' responses may, therefore, have reflected their *ideal* interpretation or reaction to the situation. Although the scenario was developed and constructed carefully, there is no way to know how efficacious of a proxy it served without additional testing.

This method warrants further testing to ensure that participants interpret the scenario and questions as intended. Additional testing may include focus-group testing and cognitive interviewing, in which one administers a self-report measure and simultaneously interviews participants regarding their responses (Beatty & Willis, 2007). It would also be fruitful to use an in-person, semi-structured interview format instead of a short-response text box in an online survey—interviewers could ask for clarification, request emotion-focused language, or gauge sentiment based on nonverbal cues.

Taxonomic Research

Finally, the proposed taxonomy of microaggression against chosen identities speaks to a whole new line of research. While further theoretical development is needed for this specific scale, additional research should explore whether my proposed taxonomy comprehensively captures types of microaggressions against chosen identities or if additional dimensions remain unaccounted for. Development of a truly comprehensive taxonomy should include extensive interviewing and qualitative data collection, content analysis, and a general phenomenological approach. Nonreligious people's experiences should continue to be included, and unsolicited religious social persuasion provides a clear instance of the newly proposed taxonomic category.

Implications for Clinical Practice

Although this scale was not developed for use in clinical research or settings, the results of this study have important clinical implications. Nonreligious people have, to varying extents, negative emotional responses to experiences of unsolicited religious social persuasion.

Recognizing the kinds of microaggressions and discrimination experiences that nonreligious people experience serves as a microintervention. Microinterventions, defined by Sue et al. (2019), are

the everyday words or deeds, whether intentional or unintentional, that communicates to targets of microaggressions (a) validation of their experiential reality, (b) value as a person, (c) affirmation of their racial or group identity, (d) support and encouragement, and (e) reassurance that they are not alone.

To validate a nonreligious client's reality and experiences, therapists must not engage in unsolicited religious social persuasion with their clients. Dr. Darrel Ray, founder of the Secular Therapy Project, has shared his experience of receiving numerous reports from nonreligious people who have experienced unsolicited religious social persuasion from counselors, therapists, and other mental health professionals (Niose, 2012). This is especially concerning when considering the larger body of minority stress and discrimination research. It also highlights the importance of this specific line of inquiry and of clinicians commitment to engaging in microintervention strategies.

While it is crucial for a clinician to be aware of the detrimental effects of unsolicited religious persuasion, this should not prevent clinicians from addressing spiritual or religious topics with clients, including nonreligious ones. Completely avoiding spiritual or religious topics also makes an unfounded assumption about a nonreligious client's perspective. A nonreligious client, just like a religious client, should be provided with the space to engage with spiritual or religious issues. Clinicians should apply the "Competencies for Addressing Spiritual and Religious Issues in Counseling" (Association for Spiritual, Ethical, and Religious Values in Counseling, 2009) to their work with nonreligious clients. This helps to ensure that clinicians

respect and understand each client's unique worldview. The competencies include the expectation for clinicians to explore how their client's (non)religious identity impacts presenting concerns and to work in a manner consistent with the client's worldview. For instance, understanding common nonreligious stereotypes may help a clinician better understand why their nonreligious client felt especially hurt by an offhanded comment from a religious family member. These competencies also stress the importance of counselor self-awareness in ethically addressing spiritual or (non)religious issues within the therapy room.

In a qualitative study by Knox et al. (2005), interview participants seeking therapy for nonreligious reasons identified that discussions of religious or spiritual topics felt helpful when brought up by the clients. They also noted that unhelpful discussions of religious or spiritual topics occurred when clients felt that their therapist was judging them or imposing their own belief system on the client. Although this study reflects perspectives from a small number of therapy clients, the findings reflect both the utility of addressing these issues in the therapy room (even when the client is not coming to therapy to work on those issues in particular). However, it becomes negative when the clients do not feel accepted.

Ultimately, the aim is not to impose religious beliefs but rather to provide nonreligious clients with a safe space to explore their identities. By integrating these competencies, clinicians can create a therapeutic environment that respects and values the diverse beliefs and lived experiences of their nonreligious clients, ultimately promoting their overall well-being.

REFERENCES

- Abbott, D. M., & Mollen, D. (2018). Atheism as a Concealable Stigmatized Identity: Outness, Anticipated Stigma, and Well-Being. *The Counseling Psychologist*, 46(6), 685–707.
<https://doi.org/10.1177/0011000018792669>
- Al Kuwatly, H., Wich, M., & Groh, G. (2020). Identifying and Measuring Annotator Bias Based on Annotators' Demographic Characteristics. In S. Akiwowo, B. Vidgen, V. Prabhakaran, & Z. Waseem (Eds.), *Proceedings of the Fourth Workshop on Online Abuse and Harms* (pp. 184–190). Association for Computational Linguistics.
<https://doi.org/10.18653/v1/2020.alw-1.21>
- Alkış, N., & Taşkaya Temizel, T. (2015). The impact of individual differences on influence strategies. *Personality and Individual Differences*, 87, 147–152.
<https://doi.org/10.1016/j.paid.2015.07.037>
- Andresen, E. M., Malmgren, J. A., Carter, W. B., & Patrick, D. L. (1994). Screening for Depression in Well Older Adults: Evaluation of a Short Form of the CES-D. *American Journal of Preventive Medicine*, 10(2), 77–84. [https://doi.org/10.1016/S0749-3797\(18\)30622-6](https://doi.org/10.1016/S0749-3797(18)30622-6)
- Association for Spiritual, Ethical, and Religious Values in Counseling. (2009). *Competencies for Addressing Spiritual and Religious Issues in Counseling*. <https://aservic.org/spiritual-andreligious-competencies/>
- Baggett, J. P. (2019). *The Varieties of Nonreligious Experience: Atheism in American Culture*. NYU Press.
- Barker, L. E. (1982). The Purpose of Evangelism. *Quaker Religious Thought*, 53.

- Beatty, P. C., & Willis, G. B. (2007). Research Synthesis: The Practice of Cognitive Interviewing. *Public Opinion Quarterly*, 71(2), 287–311.
<https://doi.org/10.1093/poq/nfm006>
- Björgvinsson, T., Kertz, S. J., Bigda-Peyton, J. S., McCoy, K. L., & Aderka, I. M. (2013). Psychometric properties of the CES-D-10 in a psychiatric sample. *Assessment*, 20(4), 429–436.
- Blumenfeld, W. J., Joshi, K. Y., & Fairchild, E. E. (2009). Christian Privilege in the United States: An Overview. In *Investigating Christian Privilege and Religious Oppression in the United States* (pp. 1–22). Brill. https://doi.org/10.1163/9789087906788_002
- Boyd, R. L. (2022). *The Development and Psychometric Properties of LIWC-22*.
- Bradley, K. L., Bagnell, A. L., & Brannen, C. L. (2010). Factorial validity of the Center for Epidemiological Studies Depression 10 in adolescents. *Issues in mental health nursing*, 31(6), 408–412. <https://doi.org/10.3109/01612840903484105>
- Brewster, M. E., Hammer, J., Sawyer, J. S., Eklund, A., & Palamar, J. (2016). Perceived experiences of atheist discrimination: Instrument development and evaluation. *Journal of Counseling Psychology*, 63(5), 557–570. <https://doi.org/10.1037/cou0000156>
- Brewster, M. E., Velez, B. L., Geiger, E. F., & Sawyer, J. S. (2020). It's like herding cats: Atheist minority stress, group involvement, and psychological outcomes. *Journal of Counseling Psychology*, 67(1), 1–13. <https://doi.org/10.1037/cou0000392>
- Burke, K. J., & Segall, A. (2016). *Christian Privilege in U.S. Education: Legacies and Current Issues* (1st edition). Routledge.
- Chaudoir, S. R., & Quinn, D. M. (2010). Revealing Concealable Stigmatized Identities: The Impact of Disclosure Motivations and Positive First-Disclosure Experiences on Fear of

Disclosure and Well-Being. *Journal of Social Issues*, 66(3), 570–584.

<https://doi.org/10.1111/j.1540-4560.2010.01663.x>

Cheng, Z. H., Pagano Jr., L. A., & Shariff, A. F. (2018). The development and validation of the Microaggressions Against Non-religious Individuals Scale (MANRIS). *Psychology of Religion and Spirituality*, 10(3), 254–262. <https://doi.org/10.1037/rel0000203>

Chilcote, P. W., & Warner, L. C. (Eds.). (2008). *The study of evangelism: Exploring a missional practice of the church*. Wm. B. Eerdmans Publishing.

Clair, J. A., Beatty, J. E., & MacLean, T. L. (2005). Out of Sight but Not Out of Mind: Managing Invisible Social Identities in the Workplace. *Academy of Management Review*, 30(1), 78–95. <https://doi.org/10.5465/AMR.2005.15281431>

Cohen, J. (1968). Weighted kappa: Nominal scale agreement provision for scaled disagreement or partial credit. *Psychological Bulletin*, 70(4), 213–220. <https://doi.org/10.1037/h0026256>

Coleman, T., & Jong, J. (2020). Counting the Nonreligious: A Critical Review of New Measures. In *Assessing Spirituality in a Diverse World*. Springer Nature.

Cook, C. L., Cohen, F., & Solomon, S. (2015). What If They’re Right About the Afterlife? Evidence of the Role of Existential Threat on Anti-Atheist Prejudice. *Social Psychological and Personality Science*, 6(7), 840–846. <https://doi.org/10.1177/1948550615584200>

Cooperman, A. (2022). Religious ‘switching’ patterns will help determine Christianity’s course in U.S. *Pew Research Center*.
<https://www.pewresearch.org/shortreads/2022/09/29/religious-switching-patterns-will-help-determine-christianitys-course-in-u-s/>

Corbin, C. M. (2016). Justice Scalia, the Establishment Clause, and Christian Privilege. *First Amendment Law Review*, 15, 185.

- Costa, P., & McCrae, R. (1992). Neo PI-R professional manual. *Psychological Assessment Resources*, 396.
- Cragun, R. T., Kosmin, B., Keysar, A., Hammer, J. H., & Nielsen, M. (2012). On the Receiving End: Discrimination toward the Non-Religious in the United States. *Journal of Contemporary Religion*, 27(1), 105–127. <https://doi.org/10.1080/13537903.2012.642741>
- Cragun, R. T., & McCaffree, K. (2021). Nothing Is Not Something: On Replacing Nonreligion with Identities. *Secular Studies*, 3(1), 7–26. <https://doi.org/10.1163/25892525-bja10017>
- Daley, S. G., & Rappolt-Schlichtmann, G. (2018). Stigma Consciousness Among Adolescents With Learning Disabilities: Considering Individual Experiences of Being Stereotyped. *Learning Disability Quarterly*, 41(4), 200–212. <https://doi.org/10.1177/0731948718785565>
- De Block, D., & Vis, B. (2019). Addressing the challenges related to transforming qualitative into quantitative data in qualitative comparative analysis. *Journal of Mixed Methods Research*, 13(4), 503-535. <https://doi.org/10.1177/1558689818770061>
- DeVellis, R. F. (2016). *Scale Development: Theory and Applications* (Fourth edition). SAGE Publications, Inc.
- DeYoung, C. G., Quilty, L. C., & Peterson, J. B. (2007). Between facets and domains: 10 aspects of the Big Five. *Journal of Personality and Social Psychology*, 93(5), 880–896. <https://doi.org/10.1037/0022-3514.93.5.880>
- Drescher, E. (2016). Choosing Our Religion: The Spiritual Lives of America’s Nones. In *Choosing Our Religion*. Oxford University Press. <https://oxford.universitypressscholarship.com/view/10.1093/acprof:oso/9780199341221.001.0001/acprof-9780199341221>

- Duncan, J. R. Jr. (2002). Privilege, Invincibility, and Religion: A Critique of the Privilege that Christianity Has Enjoyed in the United States Commentary. *Alabama Law Review*, 54(2), 617–638.
- Edgell, P., Gerteis, J., & Hartmann, D. (2006). Atheists As “Other”: Moral Boundaries and Cultural Membership in American Society. *American Sociological Review*, 71(2), 211–234.
<https://doi.org/10.1177/000312240607100203>
- Edgell, P., Hartmann, D., Stewart, E., & Gerteis, J. (2016). Atheists and Other Cultural Outsiders: Moral Boundaries and the Non-Religious in the United States. *Social Forces*, 95(2), 607–638. <https://doi.org/10.1093/sf/sow063>
- Exline, J. J., Pargament, K. I., Grubbs, J. B., & Yali, A. M. (2014). The Religious and Spiritual Struggles Scale: Development and initial validation. *Psychology of Religion and Spirituality*, 6(3), 208–222. <https://doi.org/10.1037/a0036465.supp>
- Fluit, S., Cortés-García, L., & von Soest, T. (2024). Social marginalization: A scoping review of 50 years of research. *Humanities and Social Sciences Communications*, 11(1), 1-9.
<https://doi.org/10.1057/s41599-024-04210-y>
- Frale, D. E., Blackstone, T., & Scherbaum, C. (1990). Marginal and mindful: Deviants in social interactions. *Journal of Personality and Social Psychology*, 59(1), 140–149.
<https://doi.org/10.1037/0022-3514.59.1.140>
- Frazer, S., El-Shafei, A., & Gill, A. M. (2020). *Reality Check: Being Nonreligious in America*. American Atheists.
<https://static1.squarespace.com/static/5d824da4727dfb5bd9e59d0c/t/6233b4f4e004142a2cb>

Freeman, L., & Stewart, H. (2021). Toward a Harm-Based Account of Microaggressions.

Perspectives on Psychological Science, 16(5), 1008-1023.

<https://doi.org/10.1177/17456916211017099>

Gervais, W. M., & Krueger, F. (2014). Everything Is Permitted? People Intuitively Judge

Immorality as Representative of Atheists. *PLoS ONE*, 9(4), e92302.

<https://doi.org/10.1371/journal.pone.0092302>

Gervais, W. M., Shariff, A. F., & Norenzayan, A. (2011). Do you believe in atheists? Distrust is

central to anti-atheist prejudice. - *PsycNET. Journal of Personality and Social Psychology*,

101(6), 1189–1206.

Gervais, W. M., Xygalatas, D., McKay, R. T., van Elk, M., Buchtel, E. E., Aveyard, M.,

Schiavone, S. R., Dar-Nimrod, I., Svedholm-Häkkinen, A. M., Riekkki, T., Klocová, E. K.,

Ramsay, J. E., & Bulbulia, J. (2017). Global evidence of extreme intuitive moral prejudice

against atheists. *Nature Human Behaviour*, 1(8), 0151. [https://doi.org/10.1038/s41562-017-](https://doi.org/10.1038/s41562-017-0151)

[0151](https://doi.org/10.1038/s41562-017-0151)

Gillespie, R. (2000). When no means no: Disbelief, disregard and deviance as discourses of

voluntary childlessness. *Women's Studies International Forum*, 23(2), 223–234.

[https://doi.org/10.1016/S0277-5395\(00\)00076-5](https://doi.org/10.1016/S0277-5395(00)00076-5)

Goodman, K. M., & Mueller, J. A. (2009). Invisible, marginalized, and stigmatized:

Understanding and addressing the needs of atheist students. *New Directions for Student*

Services, 2009(125), 55–63. <https://doi.org/10.1002/ss.308>

- Goyal, T., Li, J. J., & Durrett, G. (2023). *News Summarization and Evaluation in the Era of GPT-3* (arXiv:2209.12356). arXiv. <https://doi.org/10.48550/arXiv.2209.12356>
- Grammich, C., Dollhopf, E., Gautier, M., Houseal, R., Jones, D., Krindatch, A., Stanley, R., & Thumma, S. (2023). 2020 U.S. Religion Census: Religious Congregations & Adherents Study. *Association of Statisticians of American Religious Bodies*.
- Hartmann, J., Heitmann, M., Siebert, C., & Schamp, C. (2023). More than a Feeling: Accuracy and Application of Sentiment Analysis. *International Journal of Research in Marketing*, 40(1), 75–87. <https://doi.org/10.1016/j.ijresmar.2022.05.005>
- Haslam, N., & Levy, S. R. (2006). Essentialist Beliefs About Homosexuality: Structure and Implications for Prejudice. *Personality and Social Psychology Bulletin*, 32(4), 471–485. <https://doi.org/10.1177/0146167205276516>
- Hayes, A. F., & Coutts, J. J. (2020). Use Omega Rather than Cronbach’s Alpha for Estimating Reliability. But...: Communication Methods & Measures. *Communication Methods & Measures*, 14(1), 1–24. <https://doi.org/10.1080/19312458.2020.1718629>
- Hayward, R. D., Krause, N., Ironson, G., Hill, P. C., & Emmons, R. (2016). Health and WellBeing Among the Non-religious: Atheists, Agnostics, and No Preference Compared with Religious Group Members. *Journal of Religion and Health*, 55(3), 1024–1037. <https://doi.org/10.1007/s10943-015-0179-2>
- Hempeler, C., Schneider-Reuter, L., Windel, A.-S., Carlet, J., Philipsen, L., Juckel, G., Gather, J., Yeboah, A., & Faissner, M. (2024). Intersectional Discrimination in Mental Health Care: A Systematic Review With Qualitative Evidence Synthesis. *Psychiatric Services*, 75(11), 1125–1143. <https://doi.org/10.1176/appi.ps.20230252>

- Hong, Y.-G. (2007). Evangelism and Church Growth: The Model of the Diamond Evangelistic System. *Transformation*, 24(3/4), 231–249.
- Husain, W., Haddad, A. J., Husain, M. A., Ghazzawi, H., Trabelsi, K., Ammar, A., Saif, Z., Pakpour, A., & Jahrami, H. (2025). Reliability generalization meta-analysis of the internal consistency of the Big Five Inventory (BFI) by comparing BFI (44 items) and BFI-2 (60 items) versions controlling for age, sex, language factors. *BMC Psychology*, 13(1), 20.
<https://doi.org/10.1186/s40359-024-02271-x>
- Jackson, S. D., Mohr, J. J., Sarno, E. L., Kindahl, A. M., & Jones, I. L. (2020). Intersectional experiences, stigma-related stress, and psychological health among Black LGBTQ individuals. *Journal of Consulting and Clinical Psychology*, 88(5), 416–428.
<https://doi.org/10.1037/ccp0000489>
- Jones, K. P., Peddie, C. I., Gilrane, V. L., King, E. B., & Gray, A. L. (2016). Not so subtle: A meta-analytic investigation of the correlates of subtle and overt discrimination. *Journal of Management*, 42(6), 1588–1613.
- Kang, W., Steffens, F., Pineda, S., Widuch, K., & Malvaso, A. (2023). Personality traits and dimensions of mental health. *Scientific Reports*, 13(1), 7091.
<https://doi.org/10.1038/s41598-023-33996-1>
- King, K. R. (2005). Why Is Discrimination Stressful? The Mediating Role of Cognitive Appraisal. *Cultural Diversity & Ethnic Minority Psychology*, 11(3), 202–212.
<https://doi.org/10.1037/1099-9809.11.3.202>
- Knox, S., Catlin, L., Casper, M., & Schlosser, L. Z. (2005). Addressing religion and spirituality in psychotherapy: clients' perspectives. *Psychotherapy Research*, 15(3), 287–303.
<https://doi.org/10.1080/10503300500090894>

- Landis, J. R., & Koch, G. G. (1977). The Measurement of Observer Agreement for Categorical Data. *Biometrics*, 33(1), 159–174. <https://doi.org/10.2307/2529310>
- Lewis, J. A., Mendenhall, R., Harwood, S. A., & Browne Hunt, M. (2016). “Ain’t I a Woman?”: Perceived Gendered Racial Microaggressions Experienced by Black Women. *The Counseling Psychologist*, 44(5), 758–780. <https://doi.org/10.1177/0011000016641193>
- Li, C.-H. (2016). Confirmatory factor analysis with ordinal data: Comparing robust maximum likelihood and diagonally weighted least squares. *Behavior Research Methods*, 48(3), 936–949. <https://doi.org/10.3758/s13428-015-0619-7>
- Lui, P. P. (2020). Racial Microaggression, Overt Discrimination, and Distress: (In)Direct Associations With Psychological Adjustment. *The Counseling Psychologist*, 48(4), 551–582. <https://doi.org/10.1177/0011000020901714>
- Mackey, C. D., & Rios, K. (2023). Identity Centrality, Social Identity Threat, and Differences in Concealment between Religious Minorities and Nonreligious Individuals. *The International Journal for the Psychology of Religion*, 33(1), 52–68. <https://doi.org/10.1080/10508619.2022.2064110>
- Mackey, C. D., Silver, C. F., Rios, K., Cowgill, C. M., & Hood, R. W. (2021). Concealment of nonreligious identity: Exploring social identity threat among atheists and other nonreligious individuals. *Group Processes & Intergroup Relations*, 24(5), 860–877. <https://doi.org/10.1177/1368430220905661>
- Marcoulides, K. M., & Raykov, T. (2019). Evaluation of Variance Inflation Factors in Regression Models Using Latent Variable Modeling Methods. *Educational and Psychological Measurement*, 79(5), 874–882. <https://doi.org/10.1177/0013164418817803>

- Mercadante, L. A. (2014). *Belief without Borders: Inside the Minds of the Spiritual but not Religious*. Oxford University Press.
- Mohebbi, M., Nguyen, V., McNeil, J. J., Woods, R. L., Nelson, M. R., Shah, R. C., Storey, E., Murray, A. M., Reid, C. M., Kirpach, B., Wolfe, R., Lockery, J. E., & Berk, M. (2018). Psychometric properties of a short form of the Center for Epidemiologic Studies Depression (CES-D-10) scale for screening depressive symptoms in healthy community dwelling older adults. *General Hospital Psychiatry, 51*, 118–125.
<https://doi.org/10.1016/j.genhosppsych.2017.08.002>
- Murken, S., & Namini, S. (2006). Choosing a Religion as an Aspect of Religious Identity Formation in Modern Societies. In M. Pye, E. Franke, A. T. Wasim, & A. Mas'ud (Eds.), *Religious Harmony* (pp. 289–302). DE GRUYTER.
<https://doi.org/10.1515/9783110901283.289>
- Nadal, K. L., Davidoff, K. C., Davis, L. S., & Wong, Y. (2014). Emotional, behavioral, and cognitive reactions to microaggressions: Transgender perspectives. *Psychology of Sexual Orientation and Gender Diversity, 1*(1), 72–81. <https://doi.org/10.1037/sgd0000011>
- Nadal, K. L., Davidoff, K. C., Davis, L. S., Wong, Y., Marshall, D., & McKenzie, V. (2015). A qualitative approach to intersectional microaggressions: Understanding influences of race, ethnicity, gender, sexuality, and religion. *Qualitative Psychology, 2*(2), 147–163.
<https://doi.org/10.1037/qup0000026>
- Nadal, K., Issa, M.-A., Griffin, K. E., Hamit, S., & Lyons, O. B. (2010). Religious microaggressions in the United States: Mental health implications for religious minority groups. In *Microaggressions and marginality: Manifestation, dynamics, and impact* (pp. 287–310). John Wiley & Sons, Inc.

- Niose, D. (2012). *Nonbeliever Nation: The Rise of Secular Americans*. Macmillan + ORM.
- Nouvilas-Pallejà, E., Silván-Ferrero, P., de Apodaca, M. J. F.-R., & Molero, F. (2018). Stigma Consciousness and Subjective Well-Being in Lesbians and Gays. *Journal of Happiness Studies*, 19(4), 1115–1133. <https://doi.org/10.1007/s10902-017-9862-1>
- Nunnally, J., & Bernstein, D. I. H. (1994). *Psychometric Theory*. McGraw-Hill Companies, Incorporated.
- Pace, M., & Turoff, N. (2022). *Students raise concerns for their safety on campus in discussion on campus preachers* -. UNF Spinnaker.
<https://unfspinnaker.com/97896/news/studentsraise-concerns-for-their-safety-on-campus-in-discussion-on-campus-preachers/>
- Park, S.-H., & Yu, H. Y. (2021). How useful is the center for epidemiologic studies depression scale in screening for depression in adults? An updated systematic review and metaanalysis☆. *Psychiatry Research*, 302, 114037.
<https://doi.org/10.1016/j.psychres.2021.114037>
- Pew Research Center. (2023). *The religious composition of the 118th Congress*.
- Pew Research Center. (2025, February 26). *Decline of Christianity in the U.S. Has Slowed, May Have Leveled Off*. <https://www.pewresearch.org/religion/2025/02/26/decline-of-christianityin-the-us-has-slowed-may-have-leveled-off/>
- Pinel, E. C. (1999). Stigma consciousness: The psychological legacy of social stereotypes. *Journal of Personality and Social Psychology*, 76(1), 114–128.
<https://doi.org/10.1037/0022-3514.76.1.114>
- Quinn, D. M., & Chaudoir, S. R. (2009). Living with a concealable stigmatized identity: The impact of anticipated stigma, centrality, salience, and cultural stigma on psychological

distress and health. *Journal of Personality and Social Psychology*, 97(4), 634–651.

<https://doi.org/10.1037/a0015815>

Quinn, D. M., & Earnshaw, V. A. (2013a). Concealable stigmatized identities and psychological well-being. *Social and Personality Psychology Compass*, 7(1), 40–51.

Quinn, D. M., & Earnshaw, V. A. (2013b). Concealable Stigmatized Identities and Psychological Well-Being. *Social and Personality Psychology Compass*, 7(1), 40–51.

<https://doi.org/10.1111/spc3.12005>

Raykov, T., & Marcoulides, G. A. (2010). *Introduction to Psychometric Theory*. Routledge.

<https://doi.org/10.4324/9780203841624>

Riswold, C. D. (2015). Teaching the college “nones”: Christian privilege and the religion professor. *Teaching Theology & Religion*, 18(2), 133-148.

<https://doi.org/10.1111/teth.12275>

Schildkraut, D. J. (2014). Boundaries of American Identity: Evolving Understandings of “Us.” *Annual Review of Political Science*, 17(Volume 17, 2014), 441–460.

<https://doi.org/10.1146/annurev-polisci-080812-144642>

Schlosser, L. Z. (2003). Christian Privilege: Breaking a Sacred Taboo. *Journal of Multicultural Counseling and Development*, 31(1), 44–51. [https://doi.org/10.1002/j.2161-](https://doi.org/10.1002/j.2161-1912.2003.tb00530.x)

[1912.2003.tb00530.x](https://doi.org/10.1002/j.2161-1912.2003.tb00530.x)

Sedlar, A. E., Stauner, N., Pargament, K. I., Exline, J. J., Grubbs, J. B., & Bradley, D. F. (2018).

Spiritual Struggles among Atheists: Links to Psychological Distress and Well-Being.

Religions, 9(8), Article 8. <https://doi.org/10.3390/rel9080242>

- Shean, G. D., & Baldwin, G. (2012). The Latent Structure of the Center for Epidemiological Studies-Depression Scale. *Journal of Psychopathology and Behavioral Assessment*, 34(4), 502–509. <https://doi.org/10.1007/s10862-012-9296-3>
- Smith, A. (2015). Introduction: “What Grounded Theory Is....” *Organizational Research Methods*, 18(4), 578–580. <https://doi.org/10.1177/1094428115604539>
- Smith, G. A., Rotolo, M., & Tevington, P. (2022, October 27). 45% of Americans Say U.S. Should Be a ‘Christian Nation.’ *Pew Research Center’s Religion & Public Life Project*. <https://www.pewresearch.org/religion/2022/10/27/45-of-americans-say-u-s-should-be-a-christian-nation/>
- Soto, C. J., & John, O. P. (2017). The next Big Five Inventory (BFI-2): Developing and assessing a hierarchical model with 15 facets to enhance bandwidth, fidelity, and predictive power: *Journal of Personality and Social Psychology*. *Journal of Personality and Social Psychology*, 113(1), 117–143. <https://doi.org/10.1037/pspp0000096>
- Speed, D., Coleman, T. J., & Langston, J. (2018). What Do You Mean, “What Does It All Mean?” Atheism, Nonreligion, and Life Meaning. *SAGE Open*, 8(1), 2158244017754238. <https://doi.org/10.1177/2158244017754238>
- Spurgeon, S. L. (2017). Evaluating the unintended consequences of assessment practices: Construct irrelevance and construct underrepresentation. *Measurement and Evaluation in Counseling and Development*, 50(4), 275-281. <https://doi.org/10.1080/07481756.2017.1339563>
- Stahnke, T. (2004). The Right to Engage in Religious Persuasion. In *Facilitating Freedom of Religion or Belief: A Deskbook* (pp. 619–649). Brill Nijhoff. https://doi.org/10.1163/9789047414100_034

- Stone, B. (2018). *Evangelism after Pluralism: The Ethics of Christian Witness*. Baker Academic.
- Sue, D., Capodilupo, C., Torino, G., Bucceri, J., Aisha, be, Nadal, K., & Esquilin, M. (2007). Racial microaggressions in everyday life: Implications for clinical practice. *The American Psychologist*, 62, 271–286. <https://doi.org/10.1037/0003-066X.62.4.271>
- Sue, D. W. (2010). *Microaggressions and Marginality: Manifestation, Dynamics, and Impact*. John Wiley & Sons.
- Sun, J., Schwartz, H. A., Son, Y., Kern, M. L., & Vazire, S. (2020). The language of well-being: Tracking fluctuations in emotion experience through everyday speech. *Journal of Personality and Social Psychology*, 118(2), 364–387. <https://doi.org/10.1037/pspp0000244>
- Taebe, M., Ebadi, A., Ozgoli, G., & Kariman, N. (2019). Translation and psychometric evaluation of the infertility stigma consciousness questionnaire. *Journal of Isfahan Medical School*, 36(506), Article 506.
- Tehrani, H. D., & Yamini, S. (2020). Personality traits and conflict resolution styles: A metaanalysis. *Personality and Individual Differences*, 157, 109794. <https://doi.org/10.1016/j.paid.2019.109794>
- Thiessen, E. J. (2011). *The Ethics of Evangelism: A Philosophical Defense of Proselytizing and Persuasion*. InterVarsity Press.
- Uzcátegui, E. J. S. (2024). Experiences of a Group of Venezuelan Migrant Women: An Analysis from Coping and Intersectionality. In *Migration and Forced Displacement—Vulnerability and Resilience—Volume 1*. IntechOpen. <https://doi.org/10.5772/intechopen.1004725>
- Van de Mortel, T. F. (2008). Faking it: Social desirability response bias in self-report research. *Australian Journal of Advanced Nursing*, 25(4), 40–48.

- Van Pachterbeke, M., Keller, J., & Saroglou, V. (2011). Flexibility in Existential Beliefs and Worldviews. *Journal of Individual Differences*, 33(1), 2–16. <https://doi.org/10.1027/1614-0001/a000056>
- Wallis, S. (2019). ‘I’m Not Really a Non-religious Person’: Diversity among Young People of No Religion. In E. Arweck & H. Shipley (Eds.), *Young People and the Diversity of (Non)Religious Identities in International Perspective* (pp. 149–164). Springer International Publishing. https://doi.org/10.1007/978-3-030-16166-8_9
- Wang, K., Marbut, A. R., Zheng, D., & Peet, J. Z. (2023). Stressor appraisals among adults in late middle age and late adulthood in the United States: Applying the intersectionality framework. *International Journal of Stress Management*, 30(1), 47–56. <https://doi.org/10.1037/str0000283>
- Williams, M. T., Skinta, M. D., & Martin-Willett, R. (2021). After Pierce and Sue: A revised racial microaggressions taxonomy. *Perspectives on psychological science*, 16(5), 991-1007. <https://doi.org/10.1177/1745691621994247>
- Weiss, R. B., Aderka, I. M., Lee, J., Beard, C., & Björgvinsson, T. (2015). A comparison of three brief depression measures in an acute psychiatric population: CES-D-10, QIDS-SR, and DASS-21-DEP. *Journal of Psychopathology and Behavioral Assessment*, 37(2), 217-230. <https://doi.org/10.1007/s10862-014-9461-y>
- Whitehead, A. L., & Scheitle, C. P. (2018). We the (Christian) People: Christianity and American Identity from 1996 to 2014. *Social Currents*, 5(2), 157–172. <https://doi.org/10.1177/2329496517725333>

- Wilton, L. S., Sanchez, D. T., & Garcia, J. A. (2013). The Stigma of Privilege: Racial Identity and Stigma Consciousness Among Biracial Individuals. *Race and Social Problems*, 5(1), 41–56. <https://doi.org/10.1007/s12552-012-9083-5>
- Yeh, C. J., & Inman, A. G. (2007). Qualitative Data Analysis and Interpretation in Counseling Psychology: Strategies for Best Practices. *The Counseling Psychologist*, 35(3), 369–403. <https://doi.org/10.1177/0011000006292596>
- Zuckerman, P. (2012). Contrasting irreligious orientation: Atheism and secularity in the USA and Scandinavia. *Approaching Religion*, 2(1), Article 1. <https://doi.org/10.30664/ar.67488>