Peer Networks and Ideological Consistency: How Student Communities Facilitate Belief Liberalization in Higher Education[1]

Craig M. Rawlings, Erin F. Johnston, and David Eagle
Duke University

Why do students in higher education tend to become more liberal? The authors outline a model of belief change wherein cognitive motivations for ideological consistency interact with social factors in peer networks to influence how students in higher education engage with social change, often resulting in a shift toward more liberal views. Hypotheses derived from this framework are tested using longitudinal data on two cohorts of divinity school students during a time of intense debate over the morality of same-sex relationships and ordaining gay clergy. Connecting individual-level belief change data with structural data from peer networks and in-depth interviews shows that student communities, beyond faculty and curricular influences, significantly shape belief liberalization. The authors discuss the implications and possible scope conditions for student liberalization and belief change.

INTRODUCTION

The question of why many students change their beliefs and often become more liberal during higher education has inspired a substantial body of research (for reviews, see Feldman and Newcomb 1969; Pascarella and

[1] We thank Mark Chaves, Clayton Childress, and the *AJS* reviewers for helpful comments on earlier versions of this paper. We are grateful for useful insights provided by Steve Vaisey, Kevin Kiley, Christopher Johnston, as well as attendees of the University of Toronto Scarborough Sociology Colloquium, the 2023 Sunbelt Conference, the 2023 Annual Meeting of the American Sociological Association, the Duke Sociology of Religion Workshop, the Worldview Lab at Duke, the WolfWebs Speakers Series at North

 https://doi.org/10.1086/735567

Terenzini 1991). Yet, questions remain about how much student liberalization can be attributed to experiences during enrollment in an undergraduate or graduate program rather than simply reflecting who selects into higher education (Gross 2013). Survey data have provided only a limited view of the social and psychological drivers of such processes among students. To address some of these limitations, we leverage a uniquely detailed dataset on students' beliefs and peer networks at a divinity school.[2]

Although the context of our research is somewhat atypical for higher education in terms of the content and student backgrounds, it is emblematic of one plausible source of belief change: student communities themselves. Beginning with Newcomb's (1943) groundbreaking study of Bennington College students in the 1930s, researchers have postulated that students might sometimes form communities that promote belief liberalization. Newcomb's original study concerned how students processed the social changes of the New Deal era, concluding that personality features played a major role in student belief liberalization during college. Yet, central to Newcomb's findings is how students' personalities led them to form relationships with others, who then shaped their beliefs. Which students became more esteemed within the group and how students formed a largely cohesive community seem to have been at the root of processing social change. Despite the initial insight that student communities matter alongside faculty and curricula in liberalizing beliefs, the precise drivers of these processes are largely unknown.

Here we ask, Is belief liberalization the outcome of generic social psychological processes facilitated by student communities? Using data on two cohorts of students in a mixed-methods longitudinal study of graduate students enrolled in a Protestant divinity school, we assess students' changes in their beliefs throughout their program of study. Importantly, we gauge theological beliefs—convictions about God, the afterlife, and interpretations of the Bible—and highly divisive topics regarding the morality of same-sex marriages and the ordination of gay clergy. These issues were particularly salient during the study period because the denomination to which most sampled students belonged was undergoing a formal schism over these issues. Even for students who are not members of a denomination fracturing over questions of sexuality, liberalizing beliefs about equality for same-sex couples have been one of the most dominant social changes in recent decades

Carolina State University, the Narrative Workshop at Columbia University's Incite Institute, and the Sociology Department Colloquium at the University of New Mexico. This research was funded by a grant from the Rural Church Area of the Duke Endowment. Direct correspondence to Craig Rawlings, Department of Sociology, Duke University, 417 Chapel Drive, Durham, North Carolina 27708. Email: craig.rawlings@duke.edu

[2] Divinity schools are professional schools in larger universities focused on academic research and training religious leaders and scholars.

(see Baunach 2011; Bramlett 2012; DellaPosta 2018; Velasco 2023). They have been especially divisive in US religious organizations.

Given the strong ideological underpinnings of these beliefs, we posit that students will seek relations with others based on shared beliefs and a drive to form a more coherent belief system. In other words, we expect peer networks to reflect and foster students' processing of large-scale social change as a group. Our study site provides a critical test of the framework because of the salience of the social change issue and because this divinity school, as we detail later, has many features typical of strong student communities. The peer network data we collected move beyond the kind of ego-centered data Newcomb collected on perceptions of relationships toward a more comprehensive community-level view of peer networks in an entire program (Rawlings et al. 2023, p. 68). By linking individuals' beliefs to longitudinal network data and further substantiating models with in-depth interviews, we provide a detailed account of how students process broader social change by forming a community that helps to resolve ideological inconsistencies and channels belief change. In both cohorts, we find a similar pattern largely consistent with these social psychological foundations for belief change.

Our findings are likely contingent on institutional and organizational factors. In many colleges and universities, these factors may be self-reinforcing, such that the influences in curricula, campus climate, and emergent peer networks reinforce consistent belief changes in ways that are often associated with liberal thought (Meyer et al. 2007). In contrast, students might form networks that champion causes that conflict with more conservative institutional forces. For example, cadets at the US Military Academy under the "Don't Ask, Don't Tell" policies that prohibited LGBTQ+ individuals from openly serving formed peer networks that facilitated a more liberal orientation (Coronges et al. 2013). Alternatively, contrary to the predominant liberalization pattern identified in surveys, some colleges might give rise to peer networks in which more conservative and religious students predominate or at least form influential subgroups (e.g., Binder and Wood 2013). We draw on in-depth interview data to provide insights into such nondominant trends in our data.

Our work contributes to several contemporary lines of research. Substantively, our work supports the overall view that although more liberal individuals might select into higher education, student communities themselves can foster liberalization. Theoretically, our findings provide greater detail into how community commitment facilitates the cognitive and social foundations of belief change (Martin 2002; Rawlings 2020). Our results also provide insights into the microfoundations of several key findings in survey research on the life course, which show overall belief stability (Kiley and Vaisey 2020) but some belief change in adolescence and early adulthood (Fowler 1981; Clydesdale 2007; Keskintürk 2022; Lersch 2023). Our approach also points

to drivers specific to religious liberalization in higher education (e.g., Wuthnow 1989*a*, 2007), as well as explanations for variation in liberalization patterns across institution types (Hill 2011; Schwadel 2016) and study areas (Broćić and Miles 2021). Our study suggests that such variation likely reflects differences in student communities, above and beyond differences in faculty and course curricula. Finally, our work contributes to network-based research on peer influences in higher education, which has shown that friendships formed in college impact attitudes and beliefs (Sacerdote 2001; Albuja et al. 2024), by thoroughly exploring the social psychological drivers of these processes.

After developing our framework for belief change, we derive hypotheses specific to the context of religious liberalization in response to social change regarding attitudes toward same-sex couples. Results largely support the hypotheses: Students motivated by felt tensions from ideologically inconsistent beliefs seek relations and influence one another in ways that promote belief liberalization through the formation of a cohesive peer network in which relatively more liberal and ideologically consistent students form the core. We then identify two nondominant pathways by which some students remain more conservative: isolation and insulation. Results confirm the importance of emergent student communities in shaping belief change and suggest future directions for examining organizational and institutional scope conditions.

SOCIAL PSYCHOLOGICAL FOUNDATIONS FOR BELIEF CHANGE

Cognitive Processes

Students might process social change through the lens of a shared worldview consisting of interconnected and internalized beliefs (Converse 1964; see also Martin 2002; Friedkin et al. 2016; Goldberg and Stein 2018). For example, one possible explanation for religious liberalization in college is its impact on the cognitive underpinnings of beliefs. In this view, students see their religious beliefs as difficult to reconcile with secular or scientific beliefs, creating doubt about a more religious worldview (Berger 1967; Evans 2010). Higher education's focus on critical thinking and a scientific understanding of the world might contribute to a skeptical outlook. Specific religious beliefs, such as literalist readings of scripture that appear to deny evolutionary processes, might directly conflict with college course material (e.g., Kozlowski 2022). Some religious worldviews have also clearly conflicted with shifts in the broader cultural environment that have led to the growing acceptance of LGBTQ+ individuals (Haidt, Graham, and Joseph 2009; Velasco 2023; Johnston, Holleman, and Krull 2024). The Bible makes several statements that, at face value, appear to reject sexual relations between same-gender individuals, and religious authorities often cite these statements to prohibit same-sex relationships among Christians.

Opinions about contentious social issues are frequently polarized and anchored in the liberal-conservative ideological divide, which explicitly interrelates many policy-related positions across domains and, increasingly, nonpolitical beliefs and even cultural tastes (Peffley and Hurwitz 1985; Boutyline and Vaisey 2017; DellaPosta 2020; Rawlings and Childress 2024). Although connections among beliefs are partly based on logical coherence, they are primarily constructed through broader cultural narratives. Stable constellations of beliefs form not solely because of their specific contents but also because individuals have been taught that belonging to a group necessarily entails holding certain beliefs, and changing one belief would entail changing many other connected beliefs (Rokeach 1954; Osgood and Tannenbaum 1955; Abelson et al. 1968). Consequently, when beliefs change, they might change with related beliefs, possibly causing a sudden and complete reversal in worldview (e.g., Hoffer 1951).

A more fundamental question is why individuals change their beliefs in the first place. Research on belief systems rests on the largely unobserved mechanism of cognitive dissonance, a feeling of tension or discomfort arising from holding contradictory beliefs (Festinger 1957). Reducing dissonance arising from cognitive inconsistencies is a common form of emotional regulation and key to several research areas in social psychology. Findings from research on systems justification (Jost and Banaji 1994), just-world theory (Lerner 1980), constraint satisfaction (Thagard and Verbeurgt 1998), and affect control theory (Heise 1987) further substantiate the view that avoiding negative or dissonant feelings shapes cognition (see also Cancino-Montecinos, Björklund, and Lindholm 2020; Cooper 2019). For example, through telephone game–type experiments in which participants serially retell stories, Hunzaker (2016) demonstrated how schema-inconsistent information is altered as individuals recall and retell the story (see also Kashima 2000). Individuals might also rely on trivialization or compartmentalization to avoid changing beliefs, but these strategies may be unsustainable, given repeated exposure to contradictions.

Participating in a rigorous educational program in which beliefs are a central object of study could highlight inconsistencies in a person's belief system that might otherwise have remained compartmentalized or ignored. Higher education programs might also promote critical thinking and doubt, leading students to question specific beliefs that are difficult to falsify. Such a crisis of faith could produce far-reaching shifts in one's worldview. Students might realize (gradually or suddenly) that they hold contradictory beliefs, producing a sense of unease (Crocker, Fiske, and Taylor 1984). In principle, such cognitive processes could lead individuals to become more consistently liberal or conservative. However, in practice, the higher education environment might systematically highlight some issues as more salient and some contradictions as more critical than others, especially those centered on conflicts

over cultural definitions of inherent rights. Whether guided by faculty or curricula, the overall climate of higher education might facilitate cognitive discomfort that individuals frequently more easily resolve by becoming more consistently liberal.

Yet, despite the importance of feeling conflicted about one's current beliefs, a sociological perspective suggests that such cognitive factors alone are likely insufficient motivations for belief change. Shifts in the social foundations of an individual's beliefs are also required.

Social Processes

A cognitive view of belief change does not easily square with views of human beings as "cognitive misers" who are adept at compartmentalizing beliefs (Vaisey 2009) or accommodating seemingly contradictory views (Baldassarri and Gelman 2008; DiMaggio et al. 2018). Famously, Converse (1964) saw most Americans, apart from a small group of elites and enthusiasts, as being "innocent of ideology," implying that the correlations among beliefs at the group level should not be used to indicate correlated belief changes at the individual level (see Martin 2002). Experimental work aimed at prodding individuals to change a single belief in an ideologically constrained belief system found evidence of dynamic constraint in wider belief changes, but these changes appear very short-lived (Turner-Zwinkels and Brandt 2022; see also Brandt and Morgan 2022; Coppock and Green 2022). Adults seem to sense that some beliefs should go together according to a professed belief system, but they might not explicitly know how they fit together. For example, recent work suggests that partisans taking online surveys sometimes fail to report their attitudes accurately and instead search for the ideologically "correct" policy positions to appear consistent to the researcher (Bryson 2020).

Although social psychologists have long recognized that something outside the individual is likely necessary to make some issues more salient and to help individuals process belief inconsistencies (e.g., Allport 1954), sociologists have explicitly looked at how belief systems are anchored in external cognitive authorities and more tight-knit groups (Martin 2002; Rawlings 2020). In higher education, the tendency to change one's beliefs in general and become more liberal might therefore be facilitated by a stronger community condition. In addition to broader social influences—such as family, teachers, and media—students also process social change through meaningful contact with one another. Peers are especially influential during adolescence and early adulthood (for reviews, see Brechwald and Prinstein 2011; Flache et al. 2017; An, Beauvile, and Rosche 2022), and the changes they produce appear long-lasting. For example, decades after Newcomb's original study, a follow-up study found that participants' beliefs were largely stable, especially for those who did not have subsequent significant shifts in their social milieus (Newcomb

1967). In short, how students form communities and who becomes central in these peer networks are common aspects of groups that have long been shown to shape how individuals process information and make sense of the world (e.g., Katz and Lazarsfeld 1955).

As with cognitive models of belief change, models of the social underpinnings of beliefs tend to presume that belief inconsistencies motivate belief change. However, the inconsistencies that matter most arise from social systems—those contradictions that arise from having beliefs that are incongruent with beliefs within one's social relations. For example, Heider's classic balance theory (Heider 1946) predicts that individuals have a relatively straightforward structural foundation for their thoughts and feelings, which he termed a "POX system." In this system, a focal individual (P) has a positive or negative attitude toward another person (O) and an object (X) to which they are mutually oriented. The X could be another person, but the same triadic logic applies when X is a belief, such that individuals will avoid cognitive dissonance by changing beliefs and friends. Importantly, Heider's theory gives primacy to social relations over what he termed "unit relations," such as beliefs: Losing friends and befriending enemies is more painful than changing beliefs. For Heider, imbalances with one's friends and enemies are consciously troubling and instigate deliberative searches for resolution (see also Petty, Wegener, and Fabrigar 1997; Taylor 1970). The implication is that belief change requires a conscious awareness that one's beliefs are misaligned with those of others one personally likes or dislikes. Novel social settings may put individuals in such cross-pressure situations.

Many individuals, especially in the United States, are most likely to develop meaningful relationships with others who differ on at least a few key sociodemographic and potentially ideological dimensions during their time in higher education. Moreover, the environments of some higher educational settings approximate some of the more high-commitment group conditions in which balance dynamics are most likely to manifest (Rawlings and Friedkin 2017). Some institutions and programs facilitate strong bonds among students through intense engagement and shared identity. By engaging in the same coursework, sharing living spaces, participating in sports, and so on, individuals in higher educational settings can generate meaningful social bonds that can help shift beliefs and even more far-reaching worldviews. To the extent that peer network members discuss beliefs, we would expect cognitive and social aspects of beliefs to combine as individuals process social change.

Combining Cognitive and Social Processes in Cohesive Groups

Figure 1 illustrates a scenario in which a focal student P, who is friends with both O and Q, seeks to process a belief inconsistency (panel A). All three

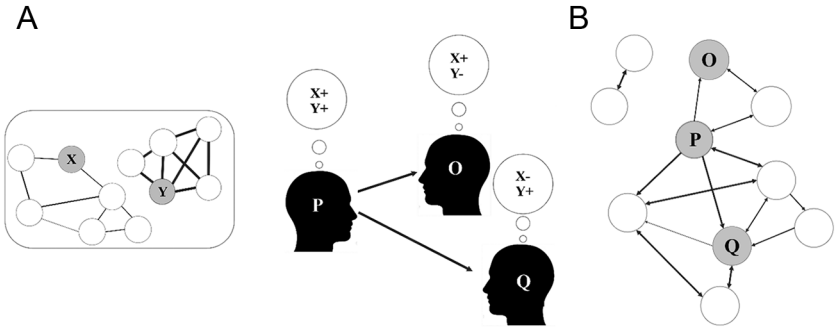

FIG. 1.—Group processing of a belief inconsistency. In panel A, beliefs across the two clusters are negatively correlated. In panel B, thicker lines indicate stronger friendship ties.

individuals share a polarized worldview in which beliefs are highly interconnected and divided into two main clusters (shown in the box on the left), with beliefs in one cluster implying *nonbeliefs* in the other. Individual P holds two beliefs (X and Y) that are contradictory within the structure of that belief system. In contrast, O holds consistent beliefs by believing in X and not believing in Y, and Q holds consistent beliefs by believing in Y and not believing in X. P is at two types of cross-pressures, one from the belief system and another from the social system. This situation should be tension provoking to the extent P understands the inconsistencies and imbalances. P must change belief X or belief Y, but which one?

Predictions of the direction of belief change differ based on the relative weighting of cognitive or social factors (e.g., Baldassarri and Bearman 2007). Simply realizing that beliefs X and Y are incompatible could motivate P to search for which belief change would create the greater overall ideological consistency. Conversely, if social relations are most important, rather than P changing beliefs at all, social balance might lead Q to start believing in X and O to stop believing in Y, given the triad's averages on beliefs X and Y. Yet, these changes could generate new imbalances with other beliefs, leading to a cascade of belief changes. Consequently, the direction of change would likely depend on the wider community embeddedness of P, O, and Q—that is, changing beliefs might require ties to multiple individuals who either believe or do not believe in X (Centola and Macy 2007)—and a farsighted understanding of the social costs and possible tensions for the group that might arise from changing beliefs (see Rawlings and Friedkin 2017). Panel B in Figure 1 situates the three individuals within a peer network, revealing that P is somewhat of a boundary spanner between different subgroups to which O and Q belong. Given P's stronger ties to the Q subgroup and higher embeddedness in that subcommunity, we might expect P to stop

believing in X and start believing in Y, thereby aligning with that subgroup. Yet, this aligning with the subgroup might also entail changing many other beliefs to which X and Y are connected in the belief system. Consequently, the influences of P's friends are likely to combine with whether P is troubled by inconsistencies and is seeking greater consistency.

The framework suggests a reciprocally causal link between mental and interpersonal network structures. Individuals for whom a belief system is a salient object of inquiry will likely form networks centered on individuals who facilitate cognitive consistency. When a cohesive network core exists, more central individuals will most likely experience more intense social and cognitive pressures. The social foundations will act as a catalyst for individuals to achieve greater cognitive consistency via multiple interconnected belief changes. The ideological leanings of the network core will determine the general ideological direction of belief change.

THE LIBERALIZATION OF RELIGIOUS BELIEF IN A STUDENT COMMUNITY

Felt Struggle and Belief Consistency

As part of the larger social sorting processes in which beliefs have become more aligned with politics (Bishop and Cushing 2009), conservative politics and religion have become increasingly aligned, especially among White individuals in rural areas (Levandusky 2009). Likewise, liberal politics have become increasingly aligned with nonreligion, especially among more educated people (Campbell, Layman, and Green 2021). Cognitive authorities from religious and political elites have drawn together issues such as abortion and same-sex attraction into a polarized religious belief system that might otherwise have remained more compartmentalized (e.g., Luker 1984). Holding specific beliefs inconsistent within this belief system is likely troubling when realized. Consequently, a conscious struggle to understand what one believes is likely necessary to resolve inconsistencies in one's belief system. Therefore, we predict the following:

Hypothesis 1a.—Students who hold ideologically inconsistent religious beliefs will be troubled by this inconsistency.

Hypothesis 1b.—Students who have consciously struggled with their religious beliefs will hold more ideologically consistent beliefs.

These hypotheses involve two steps: (1) a student's subjective assessment of discomfort arising from a sense of having inconsistent beliefs and having struggled with their belief systems and (2) an empirical assessment confirming that the student actually holds ideologically inconsistent beliefs. If students are unaware that they hold inconsistent views or are untroubled when they do, the hypothesis would be falsified.

Beliefs and Peer Network Formation

If students feel conflicted by ideological inconsistencies in their religious beliefs, they might seek relations with others who are similarly troubled by apparent contradictions or those who might have already struggled with such beliefs and can offer ways of thinking that help resolve such troubling inconsistencies. To the extent that peer networks form partly around discussions of salient beliefs that directly or indirectly relate to religion, the peer network's overall shape and features could be an important structural component impacting how students process social change.

How peer networks form is likely to vary considerably based on institutional contexts, such as the program size, course and residency requirements, and the student body's overall ideological makeup and sociodemographic heterogeneity. However, to understand religious liberalization, social network theory would project the baseline expectation that liberal students will tend to be relatively more central in the emergent peer network. The precise reasons that liberal students should be, on average, more central in a college peer network are beyond the scope of the current work. However, one reasonable explanation is the tendency for liberal students to be more culturally open, which has been found to predict network centrality in other contexts (e.g., Fang et al. 2015) and is consistent with recent work on neurological foundations of interpersonal sensitivity among more popular individuals (Zerubavel et al. 2015). Indeed, Newcomb found that friendship networks in multiple cohorts followed a similar pattern: "The group chosen most frequently had least conservative attitudes; those not chosen at all had most conservative attitudes" (Newcomb 1943, p. 149). Newcomb attributed this finding to a link between more pro-community attitudes among more liberal students. We, therefore, make the following predictions, keeping in mind possible scope conditions yet to be explored:

Hypothesis 2a.—Students who are more liberal will be more central in an emergent peer network.

Hypothesis 2b.—Students who are more ideologically consistent will be more central in an emergent peer network.

Peer Beliefs and Ideologically Consistent Belief Change

When beliefs are a salient aspect of peer discussions, we expect social ties to be important conduits for shaping beliefs through direct exposure to competing or complementary views and through the sharing of relevant information and other sources of mutual influence. Contextualizing individuals within their egocentric peer network, we predict the convergence of students' beliefs over time within peer socialization processes:

Hypothesis 3a.—Students will change their beliefs to become more like those of their newly acquired friends.

Going beyond this baseline prediction, we extend ideological consistency arguments by considering how individuals process their peers' beliefs through the filter of an underlying belief system. Changes that facilitate greater ideological consistency in one's beliefs will be more likely to be adopted than those that do not create more consistency (see also Goldberg and Stein 2018; Rawlings 2020). We, therefore, predict the following:

Hypothesis 3b.—The effect predicted in Hypothesis 3a will be more pronounced when the projected belief change increases the ideological consistency in a focal student's belief system.

Network Centrality and Belief Change

A student's location within the peer network structure might facilitate liberal and consistent belief change above and beyond that student's direct contacts. In this view, the overall interconnectedness of a group structure might facilitate belief change and the collective realization of greater consistency with a belief system; one's position in a more interconnected group will afford greater exposure to ideas and potential inconsistencies in one's beliefs. As we already noted, left to their cognitive processes, individuals are likely to compartmentalize beliefs, leading to less overall belief change and more ideologically inconsistent belief change. In contrast, individuals who become embedded in a peer group are likely to help one another become attentive to multiple, even minor, inconsistencies in their own and others' beliefs. In this view, although the dominant trend will be for the network core to facilitate more consistently liberal belief change, social embeddedness should facilitate consistent belief change regardless of a student's ideological position. Some conservative students, for example, might form subgroups or have ties to the more liberal core that could facilitate movement toward more consistently conservative beliefs through greater exposure to and interaction with those with an opposing viewpoint. We predict the following:

Hypothesis 4a.—The more central students become in a peer network, the more liberal they will become.

Hypothesis 4b.—The more central students become in a peer network, the more ideologically consistent their beliefs will become.

DATA AND METHODS

Mainline Divinity School

Our empirical site, which we call "Mainline Divinity School" (MDS), has several compelling features that aid us in testing our predictions. For divinity students, religious beliefs are a central and frequent topic of concern. Consequently,

religious liberalization among these students is more likely to arise from deliberative processes rather than general period effects or random variation. MDS is one of 13 seminaries founded and supported by the United Methodist Church (UMC), the largest Mainline Protestant denomination in the United States, and is part of a private research university. MDS is a relatively bounded community with its own identity, focused activities, communal worship practices, and gathering and dining spaces. Students take common core courses in the program's first year and then branch out into more diverse classes and seminars. Consequently, students develop relationships with their peers while exposed to the same core class content.

The data have a unique historical feature relevant to processing social change: At the time of the study, the UMC was undergoing a formal split focused on changing denominational policies to allow clergy to conduct same-sex marriages and ordain gay clergy who have romantic partners (see Adamczyk and Pitt 2009; Sherkat, De Vries, and Creek 2010; Adamczyk, Boyd, and Hayes 2016). Our study provides a window into how large-scale shifts in beliefs around sexuality are processed by a student community for whom these issues are highly salient (see also Coronges et al. 2013; Hart-Brinson 2014, 2016).

Our data on MDS come from the Seminary to Early Ministry (SEM) study, a mixed-methods, longitudinal cohort study that follows four entering classes of students from matriculation into their early careers. Methods include regularly administered surveys and in-depth interviews covering students' religious histories, intended career plans, theological views, religious and spiritual practices, academic experiences, social life, physical and mental health, and other aspects (Eagle, Gaghan, and Johnston 2023). Important for this study is that students are enrolled in a residential program and spend considerable time in classes and other MDS-sponsored extracurricular activities.

This study draws on data from students who matriculated in 2019 and 2020. We restricted our analytic sample to students enrolled in the three-year master of divinity (MDiv; 75% of the sample) or two-year master of theological studies (MTS; 25% of the sample) programs because these students enter together and constitute a single community. Remote, one-year, advanced graduate, and doctoral-level students were excluded from this analysis. Our sample reflects the larger demographics of the school. At matriculation, roughly one-quarter of students identified as United Methodist, with similar proportions of Conservative Protestant and Mainline Protestant students. The remaining students were members of historically Black denominations or were denominationally unaffiliated. Most students supported the positions of the Democratic Party (57%), whereas 31% supported the positions of the Republican Party. Roughly equal numbers of students identified as men and women, and the majority identified as heterosexual (87%). Three-quarters

of students identified as White; 15% as Black; 6% as Asian; and 4% as another race. The median age was 25.

Wave I was collected at matriculation (fall of year 1), wave II was collected at each program's midpoint (roughly 12 months for MTS students and 18 months for MDiv students), and wave III was collected at graduation (usually, spring of year 2 or 3, depending on the degree program). All students entering MDS in the two target cohorts were invited to participate in online baseline surveys. Response rates were high: 81% and 75% of eligible students in 2019 and 2020, respectively, completed all baseline surveys. We also draw on transcripts from in-depth interviews with MDiv students conducted on roughly the same schedule as the surveys. The in-depth interview sample ($N = 66$) was quota sampled to match the representation of the larger MDiv cohorts in terms of gender, race, and denominational affiliation (80% response rate). The interviews were conducted in person, by phone, or via video conference and were recorded and transcribed verbatim.

Variables Used in Hypothesis Tests[3]

Peer networks.—At wave II, students were asked to list up to 10 individuals in the divinity school with whom they had a "deep and meaningful relationship" and to characterize their perceived closeness on a scale from 1 (not close at all) to 10 (extremely close). Students could indicate whether they had known one another before entering MDS. The same network module was given at wave III. From these data, we constructed peer networks as they evolved from the few ties present at matriculation to those existing at wave II and graduation for each cohort.

To gauge social embeddedness in the peer network, we calculated each individual's *eigenvector centrality* score using binary and directed networks at each time point.[4] Individuals with higher eigenvector centrality scores are connected to highly connected others. Individuals with no friendships at one or more time points (i.e., isolates) have a score of 0.

Religious belief liberalization.—To gauge belief liberalization, we examined changes in students' beliefs at matriculation compared with the two ensuing time points. We drew on responses to 20 questions measuring students' beliefs concerning biblical interpretations, the afterlife, and sexual morality (see table A1 in app. A). Each belief was significantly correlated with the students' political orientation (gauged by their support for Democratic or

[3] See table A2 in app. A for descriptive statistics and correlations.

[4] We used the binary network rather than the valued network to avoid potential bias from students having varying baseline differences in feelings of closeness that could be related with belief change measures. However, an analysis using a measure of power centrality with the valued network produced substantively identical results.

Republican policies). Exploratory factor analysis showed that 72% of the variance in beliefs could be explained by a single factor that corresponds with an individual's left-right political leanings. Consequently, we oriented each student's religious beliefs along a conservative-liberal spectrum. Responses to these questions were rescaled to range from 0 to 100, with higher values indicating being more liberal and 50 representing moderate beliefs. Several belief questions were not asked of the 2019 cohort at matriculation. Consequently, some analyses will necessarily focus only on the 2020 cohort; we will identify these analyses in presenting our results.

Ideological consistency.—Because beliefs had a left-right valence, we could gauge the consistency of each individual's beliefs with an ideal-typical ideologically consistent pattern. We compared each individual's belief vector with a maximally consistent one in which all correlations among left-leaning beliefs were 1.0, all correlations among right-leaning beliefs were 1.0, and all correlations between left-leaning and right-leaning beliefs were –1.0. Ideological consistency was measured as a type of constraint satisfaction (see Goldberg and Stein 2018; Rawlings 2020) using the following equation:

$$CS_i(\boldsymbol{v}_i, \boldsymbol{R}) = \frac{k}{k(k-1)} \sum_{x=1}^{k} \sum_{y=1}^{k} |\mathrm{R}_{xy} - \mathrm{W}_{ixy}| \quad (1)$$

where $\boldsymbol{v}_i$ is a belief vector for individual i for k beliefs; $\boldsymbol{R}$ is a correlation matrix in which each xy cell is a belief dyad that is completely ideologically consistent (1s and 0s where they belong); and W_{ixy} is a matrix with cell values based on the individual i's belief vector by taking $|x_i - y_i|$ for each observed xy belief dyad for that individual. A value of 1.0 would indicate a perfectly consistent belief system for individual i, which could mean that the focal individual is consistently entirely conservative or liberal. However, it does not imply that the individual necessarily has *extreme* positions on these beliefs. A consistent belief system could be a relatively moderate one (see Rawlings 2022). We measure each individual's overall ideological consistency in all beliefs and their specific consistency between beliefs about sexuality and beliefs about biblical interpretation (by restricting the belief dyads to that subset).

Belief struggle.—We gauged aspects of cognitive dissonance using two measures. To test hypothesis 1a, we needed to assess students' difficulty reconciling religious beliefs with other moral beliefs about sexuality. We used responses to the question, "How much, if at all, do you struggle reconciling your beliefs about sexuality with the Bible?" To test hypothesis 1b, we examined students' self-reports of having struggled with their religious beliefs using the following question: "Over the last few months, to what extent, if

at all, have you struggled to figure out what you really believe about religion/spirituality?" Answers to both questions were coded on a five-point scale: (1) "Not at all," (2) "A little bit," (3) "Somewhat," (4) "Quite a bit," and (5) "A lot."

Peers' beliefs.—For each belief k, we averaged each individual's friends' scores and constructed a measure of how much individual i would need to change belief k to match the average k of their friends' beliefs. We calculated this value as

$$\Delta k_{i(t-1,t)} = \left(\sum_{j=1}^{n} k_{j(t-1)} \right) - k_{i(t-1)}, \tag{2}$$

which projects that individual i's change in belief k between time $t-1$ and t will be the difference between the mean of i's friends' beliefs at time $t-1$ and i's own previous belief k. In short, this measure gauges the change (shifting up or down) in each k belief necessary for an individual to match the average k of their friends' current beliefs.[5]

Peers' beliefs and projected increases in ideological consistency.—We also gauged how this projected belief change based on peers' beliefs would increase an individual's overall ideological consistency. For each projected change on belief k, we recalculated CS_i—that is, for each belief k, we calculated the difference between CS_i and CS_i'. This measure identifies the replacement of belief k with k′ (the weighted average of one's friends' beliefs). We coded negative values as 0 because we assumed that individuals would ignore such projected inconsistent changes in beliefs (rather than changing in the opposite direction in a type of backlash effect).

Model Estimation

To test hypothesis 1a, we estimated fixed-effects linear regression models for the 2019 and 2020 cohorts in which a student's struggle to resolve beliefs in religion and sexuality at time t ($S_{i(t)}$) was the dependent variable.[6] The model can be written as follows:

$$S_{i(t)} = \alpha_i + \beta_1 CS_{i(t)} + \beta_2 \tau + e_{i(t)}, \tag{3}$$

where α_i is an individual-specific intercept term; $CS_{i(t)}$ is individual i's belief consistency at time t, gauged as constraint satisfaction; and τ indexes the study

[5] We also estimated models using a convex combination of the weighted average of friends' beliefs using the attributed closeness scores. Results were nearly identical to those presented here, but missing data on some individuals' beliefs created additional complexities for the weighting procedure.

[6] An ordered logistic regression model yielded substantively identical results. For ease of interpretation, we present the linear specification.

wave (coded 1–3). Fixed effects account for time-invariant characteristics of the sampled students by focusing only on intraindividual variation. Therefore, coefficient β_1 tests hypothesis 1a, which predicts that as ideological inconsistency increases, so does one's level of cognitive discomfort.

Hypothesis 1b uses the fixed-effects model to predict the extent to which ideological consistency in one's belief system increases as a function of having consciously struggled with one's beliefs in the recent past. To test the hypothesis, we used the constraint satisfaction measure as the dependent variable in a linear regression model in which an individual's report of having struggled with their beliefs about religion/spirituality in the "past few months" is the independent variable testing the hypothesis.

Hypotheses 2a and 2b concern who becomes more central in the school's emergent peer network. To test these hypotheses, we predicted each individual's eigenvector centrality score at the midpoint and graduation. We used fractional logistic regression to estimate models because eigenvector centrality is bounded between 0 and 1 and has many observations near 0. We used each individual's lagged scores on how liberal and ideologically consistent their beliefs were as the key predictors of their subsequent network centrality. Because younger students are likely to be more liberal and socially active, we included age as a key control.

To test hypotheses 3a and 3b, we shifted the unit of analysis to all individual-belief dyads. The dependent variable is a change score for each individual i's $k = 20$ reported beliefs over time, with fixed effects for $k-1$ beliefs used to account for possible exogenous effects on belief change. To account for nonindependence in observing cross-nested individuals and beliefs, we used multiway clustered standard errors (see Cameron, Gelbach, and Miller 2011). The model can be written as follows:

$$\begin{aligned}(Y_{ik(t)} - Y_{ik(t-1)}) = \alpha + \beta_2 Y_{ik(t-1)} + \beta_2 I_{ik(t-1)} + \beta_3 \delta_{ik} \\ + \beta_4 (I_{ik(t-1)} \times \delta_{ik}) + \kappa + e_{ik},\end{aligned} \tag{4}$$

where α is a baseline change for beliefs when all predictors are 0; I_{ik} is the predicted change in individual i's belief k based on i's friend's average belief k score (the mean of belief k for that individual's friends); δ_{ik} indexes an increase in ideological constraint satisfaction based on k' (i.e., $(CS_i' - CS_i) > 0$); κ is a fixed effect for belief k; and e_{ik} is a multiway clustered error term for individual i and belief k. We included individuals' lagged beliefs on the right-hand side to account for the likely stickiness of beliefs (Halaby 2004). Therefore, the coefficients β_2 and β_4 jointly test hypotheses 3a and 3b.

To test hypotheses 4a and 4b, we shifted the unit of analysis back to individual i and included i's position in the emergent peer network. Here we

estimated linear regression models where the dependent variables are i's changes in the liberalization score and the ideological consistency measure:

$$(y_{i(t)} - y_{i(t-1)}) = \alpha + \beta_1 y_{i(t-1)} + \beta_2 (C_{i(t)} - C_{i(t-1)}) + e, \quad (5)$$

where the focal independent variable (C_i) is student i's network centrality score. All models include lagged dependent variables. When predicting changes in ideological consistency, we included the additional control of an individual's lagged liberalization to ensure that the effect of increasing centrality is not contingent on simply already being more liberal.

Qualitative Analyses

We supplemented these formal models with an applied thematic analysis (Guest, MacQueen, and Namey 2011) of the longitudinal, in-depth interview data. We coded interview transcripts following the two-stage "flexible coding" approach outlined by Deterding and Waters (2021). First, a structural codebook was deductively developed based on the interview guides to index the transcripts according to broad themes (e.g., "religious upbringing" and "theological views") and narrower topics within each theme that reflected specific interview questions (e.g., "the Bible," "LGBTQ+ issues," and "seminary impacts on theology" in the section on theological views). For each cohort and wave, trained analysts met to establish intercoder reliability before independently applying structural codes to the remaining transcripts. Codebook definitions and codes were revised as needed by mutual agreement.

Our findings are based on further analytic coding of all segments of the interview transcripts identified as relevant to the topic of "theology" during indexing (Deterding and Waters 2021), with particular attention given to discussions of theological change. Such segments included responses to direct questions about whether and how the seminary had impacted students' theological views and discussions relevant to theological formation that arose in other parts of the interview. In the first and second interviews, participants were asked,

> Thinking broadly over your time at [MDS] so far: In what ways, if at all, do you think your time at [MDS] has impacted or shaped your theological views? Have they remained the same, or have they evolved or changed in some way?
>
> If changed or evolved: What factors, if any, do you think have contributed to these changes in your perspectives? [Probe: courses, experiences, people]

Before subsequent interviews, interviewers reviewed the participant's past interviews and survey responses. They were instructed to ask directly about previously mentioned theological struggles and any changes in theological

attitudes identified in the survey but not spontaneously discussed by the respondent. Together, these questions solicited detailed accounts of whether, when, and why students' theological views changed, evolved, or solidified.

Based on an initial review of the relevant data, the second author developed a thematic codebook focused on the nature (e.g., change, stability, deepening) and direction (e.g., liberal, conservative, uncertainty) of theological formation and the factors or mechanisms (e.g., courses, faculty, experiences, peers, books) students identified as having contributed to this formation. Because the survey and interview data were linked, we could interpret students' interview responses with attention to their evolving positions in the peer network.

RESULTS

The Liberalization of Religious Beliefs

Do students tend to become more liberal while at MDS? To answer this question, table 1 estimates fixed-effects regression models in which the overall liberalization of a student's religious beliefs is a linear function of time at MDS. When we controlled for all stable characteristics of students (e.g., age at matriculation, race, gender, religious tradition, and initial beliefs), the MDS enrollment experience led to, on average, religious liberalization. The average student of the 2020 cohort, which has complete data on all 20 beliefs, became roughly 11 points more liberal over the three-year program. Because most beliefs were originally measured on a 7-point Likert scale, this change translates into roughly a 0.8-point average change across all students. While becoming somewhat more liberal, the average student in the 2020 cohort shifted from leaning conservative (liberal = 44) to leaning liberal (liberal = 55), and the average student in the 2019 cohort graduated as fairly moderate (liberal = 36.7 at midpoint and 42 at graduation). In tracing individual student trajectories, we found that a nontrivial number in each cohort changed dramatically toward more liberal, with relatively few moving toward greater conservatism.

Students also appeared to change some types of beliefs more than others. Figure 2 shows predicted belief changes for the 2020 cohort based on fixed-effects models for each belief. The average student entered their program with somewhat liberal views on sexuality and somewhat more conservative-leaning views across several areas concerning biblical authority and the interpretation of scripture.[7] On average, students became only slightly more liberal

[7] At matriculation, more than half the students we spoke with preemptively mentioned issues related to same-sex relations, and roughly one-third of the students expressed considerable uncertainty or ambivalence in their reported views on the morality same-sex relationships. Most often, they raised this topic in response to questions about what theological ideas

TABLE 1
Fixed-Effects Linear Regression Models Predicting Belief Liberalization and Ideological Consistency While in Divinity School

	2019 Cohort		2020 Cohort	
	Liberal	Consistency	Liberal	Consistency
Wave	4.45***	3.08***	3.53***	.96*
	(.77)	(.52)	(.57)	(.39)
Intercept	36.74***	53.07***	44.34***	59.11***
	(1.93)	(1.31)	(1.15)	(.79)
N	234	236	303	304

Note.—The 2019 cohort includes observations for midpoint and graduation. The 2020 cohort includes all three time points. Standard errors are shown in parentheses.

*** $p < .001$.

** $p < .01$.

* $p < .05$.

in their beliefs around sexuality over the three-year program. The beliefs that shifted most, and those that crossed from right leaning to left leaning, were beliefs most clearly linked with beliefs regarding sexuality, including beliefs about Adam and Eve, Noah, and the afterlife. Thus, students in both cohorts and across the ideological spectrum also became somewhat more ideologically consistent in their beliefs (roughly one-third of a standard deviation unit between midpoint and graduation for the 2019 cohort and approximately the same amount throughout the entire program for the 2020 cohort).

Belief Struggle and Belief Consistency

Belief change among adults might be primarily motivated by feelings that one's beliefs are inconsistent. To map out this process, we predicted that existing inconsistencies in a student's belief system—specifically, an ideological inconsistency between beliefs about the morality of same-sex relationships and beliefs about biblical truth—would consciously disturb them (hypothesis 1a). Such struggles, in turn, should motivate more consistent belief change. Consequently, we predicted that students who consciously struggled more with their religious beliefs while at MDS would have greater increases in ideological consistency than students who had no change in how they reflected on and tried to understand what they believed (hypothesis 1b).

Table 2 shows the results of fixed-effects linear regression models testing these hypotheses. Model 1 tests hypothesis 1a, which predicts that changes in the intensity of a student's struggle to reconcile beliefs about sexuality and

or issues, if any, they had struggled with. Students who leaned affirming and students who leaned nonaffirming were equally likely to report such feelings (see Johnston et al. 2024).

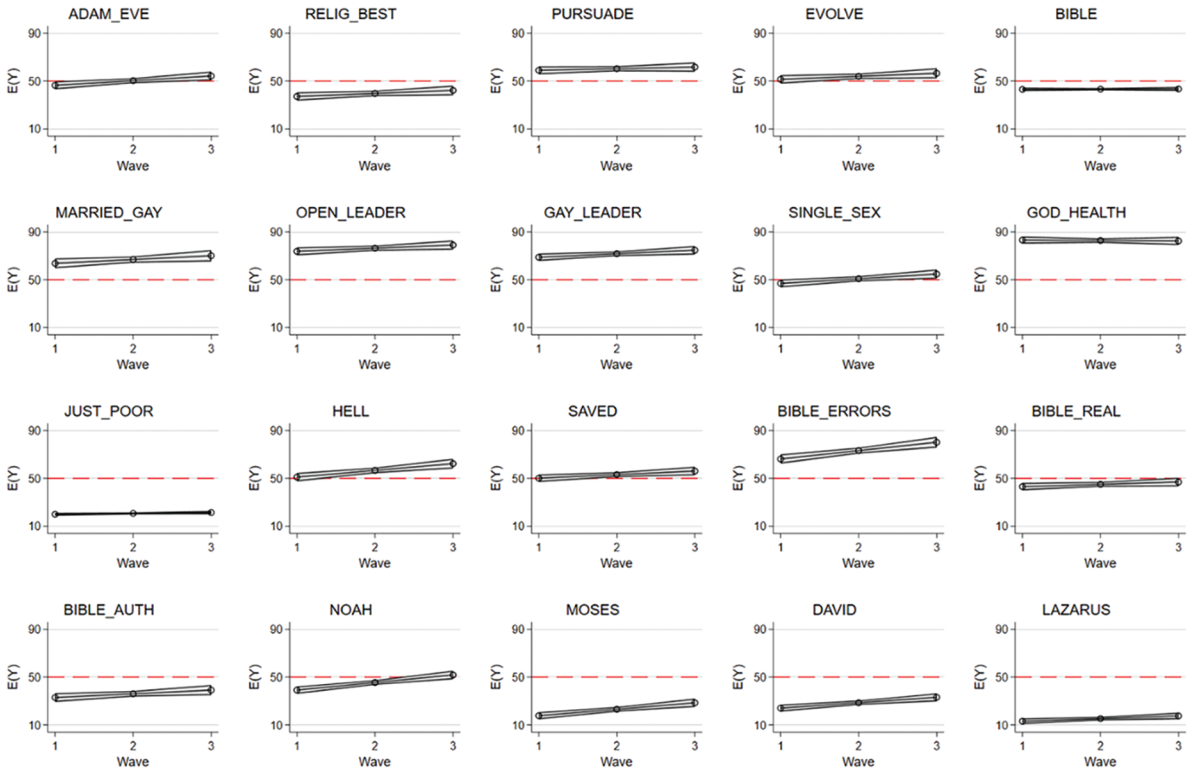

FIG. 2.—Predicted belief changes based on fixed-effects regressions. All variables are rescaled between 0 and 100 so that higher values indicate more liberal positions. (See table A1 in app. A for full descriptions.)

TABLE 2
Fixed-Effects Linear Regression Models Predicting Personal Struggles with Beliefs and Overall Ideological Consistency in Students' Belief Systems

	Hypothesis 1a: Struggle Reconciling Beliefs	Hypothesis 1b: Overall Ideological Consistency
Variable	(1)	(2)
Ideological consistency between sexual and religious beliefs	−.03***	
	(.01)	
Struggle with religious beliefs:		.69*
Wave	−.08	1.50***
	(.07)	(.31)
Intercept	3.19***	56.58***
	(.43)	(.82)
N	533	533

Note.—Models pool all three periods for the 2020 cohort with two periods for the 2019 cohort. Fixed effects net out differences in cohorts and all other stable individual characteristics to focus on within-person variation alone. Standard errors are shown in parentheses.

*** $p < .001$.

** $p < .01$.

* $p < .05$.

the Bible arise from changes in that individual's consistency in those specific beliefs. Results support the hypothesis. Students' changing ideological consistency was directly related to their subjective struggle with reconciling these beliefs. A student shifting from a rather ideologically inconsistent set of beliefs ($CS = 30$) to one of relatively high consistency ($CS = 80$) would be predicted to have roughly a 1.5-point decrease (on the five-point scale) in felt struggle—a change of more than 1 standard deviation. Model 2 in table 2 offers support for hypothesis 1b. Although even those students with no change in their felt struggles regarding their religious beliefs became more ideologically consistent at MDS, students who consciously felt a deeper sense of struggle had significantly larger overall gains (by nearly 50%) in consistency.

The Emergence of Peer Networks

Having linked belief inconsistency with feelings of unease that are likely to motivate belief change toward more consistency, we now examine how peer networks developed among the two cohorts at MDS. Hypothesis 2a predicts that students who were more liberal would be more likely to form the core of peer networks. Hypothesis 2b predicts that students with more ideologically consistent belief systems would be more central in peer networks.

Figure 3 shows the peer networks as they existed before matriculation (panel A), at wave II (panel B), and at graduation (panel C) for the 2019 and 2020 cohorts at MDS. The nodes are colored according to quintiles of

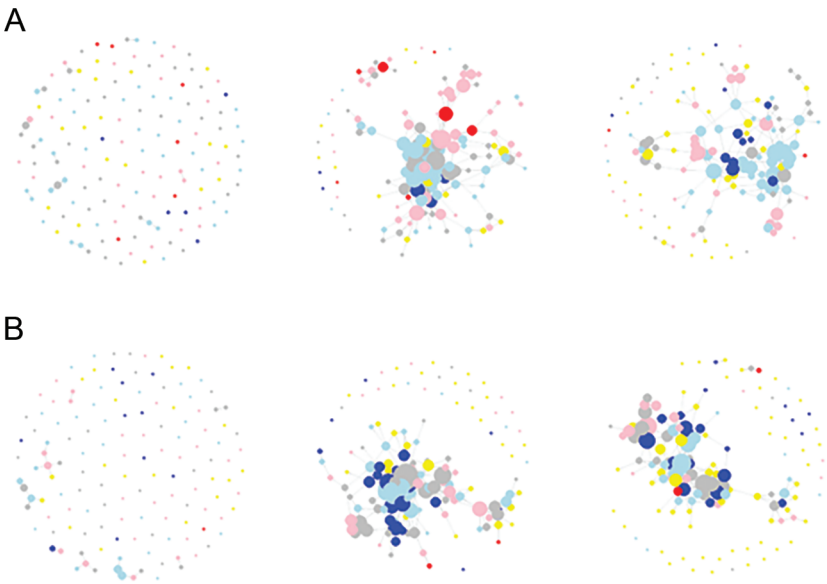

FIG. 3.—The evolution of peer networks in two cohorts. Node colors correspond to quintiles of the conservative-liberal belief scale: dark red = very conservative, light red = conservative, gray = moderate, light blue = liberal, and dark blue = very liberal; yellow = missing belief data. Node size corresponds to degree centrality.

conservative to liberal beliefs (dark red = very conservative, light red = conservative, gray = moderate, light blue = liberal, and dark blue = very liberal; yellow = missing belief data). Node size is based on the student's degree centrality in the network. In both cohorts, the network at the program's midpoint had an integrated core of students who were more liberal, whereas the network at graduation appeared somewhat more clustered along ideological lines.

Table 3 shows estimates from fractional logistic regression models predicting an individual's eigenvector centrality score based on measures of their lagged beliefs in terms of liberalization and ideological consistency. The table reveals significant nonlinearity in the effects of lagged ideological position on network centrality, with the left-of-center students tending to become the most central. Figure 4 uses coefficients in models 1 and 3 to predict network centrality based on students' mean-centered ideological position across 20 beliefs. For the 2020 cohort, the somewhat more liberal students at matriculation became the most central at wave II. The pattern between wave II and graduation was similar for both cohorts. Consequently, although it was not the most liberal students who became most central, we found support for hypothesis 2a's prediction that students who are more liberal tend to be more popular. This effect is

TABLE 3
Fractional Logistic Regression Coefficients Predicting Eigenvector Centrality at Program Wave II (2020 Cohort) and Graduation (Both Cohorts) as a Function of Lagged Beliefs and Ideological Consistency

	Centrality Wave II (2020 Cohort)		Centrality Graduation (Both Cohorts)	
	1	2	3	4
Hypothesis 2a:				
Conservative-liberal beliefs lag	.16*	.34*	.09**	.22***
	(.07)	(.14)	(.04)	(.06)
Conservative-liberal beliefs lag squared	.001*	.003*	.001*	.002***
	(.001)	(.002)	(.000)	(.001)
Hypothesis 2b: Ideological consistency lag		.13		.10**
		(.08)		(.04)
Controls:				
Age	−.12***	−.12***	−.05	−.06
	(.03)	(.03)	(.03)	(.03)
Cohort 2020 indicator variable			.36	.54
			(.29)	(.27)
Intercept	−3.60	−14.30	−2.82**	−10.83***
	(1.91)	(7.42)	(1.00)	(3.20)
N	97	97	179	179

Note.—Standard errors are shown in parentheses.
*** $p < .001$.
** $p < .01$.
* $p < .05$.

independent of liberals being more ideologically consistent (models 2 and 4). We found partial support for hypothesis 2b's prediction that students are drawn to those who are more ideologically consistent. The coefficient for the 2020 cohort borders on statistical significance ($p = .11$) for the first period and is statistically significant for the latter period, which includes both cohorts.

Ideological Consistency and Adopting Friends' Beliefs

Hypothesis 3a predicts a convergence in friends' beliefs over time. Table 4 reports coefficients from dyadic regression models predicting change in the 20 beliefs for the 2020 cohort while at MDS as a function of the average of one's current friends' beliefs. Consistent with peer influence research and in support of hypothesis 3a, students' beliefs became more like those of their friends. However, the results also strongly support hypothesis 3b's prediction that belief change is contingent on increases in an individual's ideological consistency.[8]

[8] We tested the linear interaction effect assumption in these models with the binning method described in Hainmueller, Mummolo, and Xu (2019, pp. 170–71). The results support the assumption that the effect of increasing ideological consistency is constant across the range of predicted belief changes (see the online supplement for details).

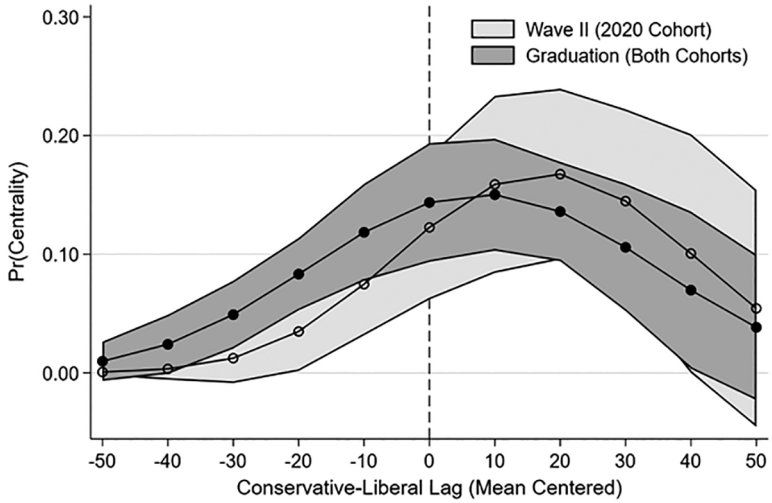

FIG. 4.—Predicted network centrality at program wave II (2020 Cohort) and at graduation (both cohorts) based on lagged conservative–liberal beliefs.

Figure 5 shows predicted changes in beliefs based on the weighted mean of one's friends' beliefs and the extent to which the projected belief change increased the focal individual's ideological consistency. The combined effects of peer influence and increasing ideological consistency are strong, particularly between wave II and graduation. After the initial phase of making friends, individuals were unlikely to adopt their friends' beliefs if doing so did not increase their own ideological consistency. Given an increase in ideological consistency, a focal student who did not believe k but whose friends all did would increase their belief in k by roughly 40% ($\beta = .40$) between wave II and graduation; however, that same focal student's friends might have somewhat overridden the constraints of an individual's belief system at the beginning of their program. In short, as social relations became more settled, so did the constraint of one's belief system in shaping whether one's friends were influential.

Social Embeddedness and Belief Change

We now move beyond individuals' local ties to focus on their positions in the wider network. Table 5 presents coefficients testing predictions that one's social embeddedness facilitates more liberal (hypothesis 4a) and ideologically consistent (hypothesis 4b) belief change. Results support hypotheses 4a and 4b only between matriculation and wave II. The more embedded a student became early in their program, the more liberal and ideologically consistent their beliefs became. Consequently, network centrality was not simply a reflection

TABLE 4
Dyadic Linear Regression Models Predicting Change in Individual Beliefs as a Function of Peers' Beliefs (Hypothesis 3a) and Increased Ideological Consistency (Hypothesis 3b): 2020 Cohort

	Wave II	Graduation
Lagged belief	−.21**	−.20**
	(.06)	(.06)
Projected belief change	.05	.01
	(.06)	(.05)
Increase in consistency from projected belief change	−.02	.01
	(.02)	(.01)
Increase in consistency from projected belief change × Projected belief change	.22*	.30***
	(.08)	(.07)
Intercept	.00	.08**
	(.02)	(.02)
No. of individual belief dyads	1,368	1,054

Note.—Models include fixed effects for 20 beliefs. Standard errors, shown in parentheses, are multiway clustered.

*** $p < .001$.

** $p < .01$.

* $p < .05$.

of preexisting liberalization and consistency; more rapid social embeddedness facilitated more rapid liberalization and ideological consistency as peer networks initially formed. Because models predicting ideological consistency control for lagged belief liberalization, the results suggest that embeddedness facilitates ideological consistency despite one's initial ideological orientation.[9] As shown in results testing hypotheses 3a and 3b, direct relationships and an internalized drive for cognitive consistency remain important in jointly shaping belief change after this formative period.

Structural Pathways and Subjective Experiences

Having shown belief change as rooted in student communities, we now draw on in-depth interviews to illustrate the main pathway of social integration and belief liberalization using one case. The case we use is germane to our assertions about the ways networks and beliefs coevolve. Afterward, we describe two nondominant pathways whereby students' experiences reflect resistance to these processes: isolation and insulation.

Integration: Connor's pathway.—Figure 6 shows the social trajectories of Connor (in gray to blue) and James (in red, and to whom we will return in the next section). Connor, a White, United Methodist man in his early 20s,

[9] An interaction term between initial liberalization and increasing centrality is not statistically significant.

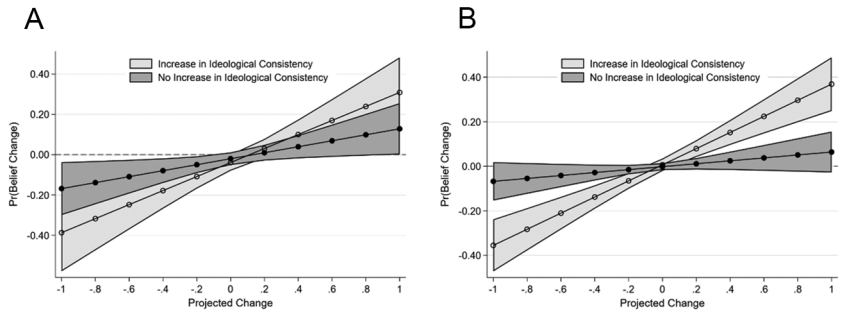

FIG. 5.—Predicted changes in 20 beliefs based on peers' beliefs and increasing ideological consistency.

grew up in what he described as "a fairly conservative" environment. At matriculation, Connor described his theological views at matriculation as "moderate" across most theological and social issues. For instance, when describing his views on the Bible, Connor reflected,

> I think I have a very middle-ground approach. I certainly don't think we should throw out scripture we disagree with, but I do think that scripture should be taken in a cultural sense, in a historical sense. [. . .] That's why I say it's a very middle-ground approach: I say that scripture is critical and allows us to see God through words, but it's also, at the end of the day, written down by people.

On sexual ethics, including homosexuality, Connor again described his views as "pretty square in the middle." On the morality of premarital sex,

TABLE 5
ORDINARY LEAST SQUARES REGRESSION MODELS PREDICTING BELIEF LIBERALIZATION AND IDEOLOGICAL CONSISTENCY BASED ON SHIFTS IN NETWORK CENTRALITY: 2020 COHORT

	Hypothesis 4a: Liberalization Time t		Hypothesis 4b: Ideological Consistency Time t	
Variable	Wave II	Graduation	Wave II	Graduation
Centrality difference, $(t-(t-1))$	.15**	−.06	.10**	−.00
	(.05)	(.04)	(.03)	(.03)
Liberal, $t-1$	.88***	.89***	.15***	.13**
	(.04)	(.06)	(.03)	(.05)
Ideological consistency, $t-1$			.68***	.60***
			(.08)	(.11)
Intercept	9.71***	8.25*	12.46**	18.73**
	(2.19)	(3.30)	(4.50)	(5.58)
N	96	75	96	75

NOTE.—Standard errors are shown in parentheses.
*** $p < .001$.
** $p < .01$.
* $p < .05$.

FIG. 6.—Integration versus isolation. The different cognitive and social pathways of Connor (gray to light blue) and James (red). See fig. 3, panel A, for a detailed view of social context.

he responded, "That's one of the places where I think that the Bible meant what it meant . . . when it's saying that the idea of sex should be saved as a gift for a married couple. . . . So, is it moral? I would probably say no." Similarly, regarding same-sex relationships, Connor reflected, "Is it moral? I would say 'no' is the required judgment because of that act. And that, to me, is, I think, a sin that God has to . . . that's between the individual and God." Two months into the program, Connor reported feeling some social friction associated with being a self-professed moderate. When asked whether his views had changed or been challenged in his first weeks at MDS, Connor reflected,

> It's funny because the first week, when everyone's figuring out who everyone is and we're having conversations, and of course, most people are like, "Alright, so what's your political beliefs?" And you come in, and you're like, "Well, I'm a moderate." And they look at you like, "Moderate?!" . . . And so, I feel like that approach for me has been a little uneasy, only because I think that I want to use my voice to glorify the kingdom of God. . . . But it also, at times, means not saying something that's going to hurt a bunch of people. And so, making sure that my voice is used for good. . . . I've seen myself changing, at least a little bit.

Connor's initial exposure to liberal peers at MDS prompted self-reflection. He started thinking about how his voice and views might affect others and how he engaged with people who disagreed with him. His somewhat liberal position might have enabled Connor to connect more widely than some of his most liberal peers. At the program's midpoint, Connor described himself as "a floater" who liked to be "in community with a lot of different people." Connor began dating a more liberal-leaning female MDS student, and this relationship fostered his integration with those more liberal than himself.

Three years later, Connor described substantial and personally meaningful changes in his theological views on several key issues. When asked broadly about whether and how his views had changed since matriculation, Connor responded, "I would say, definitely much more open. [. . .] I think my

theology has evolved from just strictly biblical to more gospel oriented, flourishing of the kingdom kind of theology. . . just seeing much more, there's a lot more gray area." Connor used language characteristic of a more progressive approach to scripture, viewing it as less literal and more contextual. Likewise, when asked about his views on same-sex relationships, Connor reflected,

> I've been raised [to believe] that men should marry women, and everything's black and white. So, I brought that theology and intuition into this space, and when it was challenged . . . I've just been able to see God flourish in these gray areas that, growing up, would never have been really proclaimed. And so just being able to leave and recognizing that like, "Hey, God values all people." And I have a lot to learn from my LGBTQIA siblings and being able to walk alongside them. . . . That would never have probably come out of my mouth when I started this school [. . .] I don't want to say a complete one-eighty, but definitely different than what I came in.

By graduation, Connor supported same-sex marriage and the ordination of LGBTQ+ people, stating, "Yeah, I support same-sex marriage. I support my LGBTQ brothers and sisters. If they have the call to ministry, they should be able to receive and go forward in their call." Connor no longer used the language of *sin*. Instead, he used the language of *allyship* through familial metaphors, referring to LGBTQ+ people as siblings in Christ.

Why did Connor think he had changed his beliefs? Connor emphasized the role of peer interactions and relationships, reporting that "some of it [theological formation] happened in the classroom," but the "vast majority of it came with open, hard relationships and conversations" with his peers, including "relationships with people in the LGBTQIA community" who were "willing to be open and be vulnerable with me as I was to them." When asked what advice he had for students entering the program, he responded,

> I think the first thing is that getting involved is important. . . . You can isolate if you want. You could go to divinity school and not make any friends or peers and people who are going to challenge you, . . . but I think, without the community, it's a lot harder to get through three years of intense theological and practical ministry training. I think also, coming into divinity school with the sense that one is going to be humbled and being okay with that. Being able to grow in a lot of different ways by your peers and classmates is really important. I think I would also tell myself like, "Hey, don't be so steadfast on some of these theological leanings that you have because in your first 20 years of life, this is all you've heard."

For Connor, being open to such questioning, being challenged, and potentially changing his theological views was essential to seminary education. This very openness and genuine concern for ideological consistency likely allowed Connor to become one of the most central and influential students in his cohort, serving as a hub for discussion and interaction that collectively guided his peers toward more consistently liberal beliefs. Throughout seminary, Connor sought relations that helped him reflect on his identity, beliefs,

and attitudes and instigated and facilitated belief change. However, such belief change likely takes more than one peer connection to be realized, even if that connection was to Connor, as illustrated clearly in the case of James.

Isolation: James's pathway.—Although James knew Connor and remained connected to him at MDS, his pathway was strikingly different. For James, a Black man from a Conservative Protestant tradition, social isolation was a conscious strategy rooted in an explicit awareness of the power of relationships to shape and change one's beliefs. James entered MDS the same year as Connor. Like Connor, James grew up in a community he described as "conservative." Unlike Connor, James's responses to questions about his theology in the first interview revealed clear and ideologically consistent conservative positions across a range of issues, including his views on the Bible, Jesus, and salvation, as well as his views on homosexuality, same-sex marriage, and the ordination of people in same-sex relationships.

James's views remained essentially unchanged throughout his time at MDS. At the program's midpoint, when asked about whether and how his theological views had changed since entering the seminary, James reflected,

> I still have the same theological views as before entering [seminary], but now I have a better understanding of how to break down a passage. [. . .] When it comes to same-sex marriage, abortion, and having women in the ministry, I still have my beliefs. That's in accordance with the Bible. . . . I know [MDS] is more progressive when it comes to allowing abortions and same-sex marriage. But respectfully, I still support my biblical understanding of the Bible when it comes to those topics. So, they haven't changed at all.

James was aware that his peers held more progressive views on many theological issues, but he maintained that his personal theological views had not been impacted by his time there. At graduation, James reported the same opinions he expressed at matriculation, including a belief that "marriage is between a man and a woman."

As with Connor, James's responses demonstrate that holding less progressive (especially nonaffirming) theological positions often created friction, which made social life at MDS "uneasy." James reported, for example, that his theological views often caused him to "butt heads with some people" at the seminary. However, this friction did not lead to an internal struggle or belief change. Notably, James' advice to incoming students at graduation was, in many ways, directly opposed to Connor's. He reflected,

> I would say . . . don't be so quick to make friends . . . place God or your faith first. Cherish your true friends and family. [. . .] The people you surround yourself with are a mere reflection of the kind of life you will have. Being a Christian is hard but worth it. I would say, pick up the cross and follow me. [. . .] Don't waver just to fit in with a group. Your roommates might not be your friends by the time you graduate, and that's okay. Find a solid Bible-based church. Be careful of who you listen to. . . . And don't pick a church simply because it's big, nice, or fancy, but rather ensure that the pastor is theologically sound.

While James ultimately advised students to *avoid* integration, his response speaks to the power of peer relationships and social interaction in belief change. For James, maintaining his preexisting theological views—preventing change—required him to avoid forming friendships and accept the possibility of not being liked by his peers. James's advice also points to the importance of making and maintaining social relationships outside MDS to bolster and reinforce one's preexisting views. James's position as having a single tie (a *pendant*, in network terms) to the popular Connor reflects a clear desire and strategy to avoid conversations and redundant ties to a relatively more liberal core that could prompt James to potentially shift his worldview. Whereas James isolated as an individual, others at MDS formed somewhat insulated subgroups.

Insulation: Daniel's pathway.—Some conservative students formed distinct cliques, often in conscious reaction to the liberal core of the student social network. Daniel, a White man in his early 20s, illustrates this pathway (see fig. 7). He was raised in a conservative ("evangelical leaning") UMC congregation. His views at enrollment, like Connor's, were self-consciously moderate, having liberalized somewhat during his undergraduate studies, where he double majored in religion and sociology. At matriculation, his theological views were largely creedal and orthodox. However, Daniel also emphasized his "pacificist" perspective—including being antiwar and anti–gun ownership—as examples of more liberal-leaning views.

On LGBTQ issues, Daniel characterized himself at matriculation as "wrestling with" his beliefs. First, contrasting same-sex marriage with the issue of women in ministry (which he supports), Daniel explained, "But with same-sex marriage, the witness of scripture to marriage, overarching across the testaments, seems to me to be pretty unified. . . . That's one piece of the struggle. That's me leaning towards the traditional side." Daniel then offered several arguments in favor of an affirming position. He argued that "the unifying nature of sin in scripture is that it's inherently destructive. But I don't think there's anything destructive about a same-sex monogamous relationship." He also argued that "sexuality is part of who we are"

FIG. 7.—The insulating pathway of Daniel. See fig. 3, panel B, for a detailed view of social context.

and reflected, "I do believe that humans have a sinful nature. But we would never say that my greed is just part of who I am." Both, he said, made LGBTQ issues "different than other quote-unquote sins that we see in scripture." Finally, Daniel said he wasn't sure "how a pastor, in good conscience" could tell someone, 'You have to be celibate for your entire life.' I really struggle with that." In the end, Daniel said he was "thinking hard about" LGBTQ issues.

Daniel was interested in discerning his position on these issues, but he also reported that he generally tried to keep his views and struggles "on the down low" at MDS. Daniel felt that he "could run into problems expressing that view and expressing my wrestling with it," especially among his peers, whom he described as mostly affirming. Perhaps partly because of this strategic avoidance and his liberal-leaning views on war and guns, Daniel was "added to a progressive student group chat" early in his time at MDS. Daniel described a general presumption among those who participated in the chat "that anybody who would be on the other side is either bigoted or stupid." This exposure reinforced Daniel's decision to keep his views private and avoid open discussions about sexuality with his peers.

By the program's midpoint, Daniel had developed "a great group of friends" that he described as a circle of "five or six guys that I'm really, really close to." He continued, "We go out once a week. We hang out all the time. If we're on campus, we're together. [. . .] We talk through what we're learning together." Daniel reported that these relationships were forged and solidified through common coursework, mostly upper-level "PhD seminars," which Daniel said tended to attract "the most academically minded people" at MDS. Daniel was self-conscious about his choice to form deeper relationships with like-minded students and described his friend group as a "Protestant conservative clique." Daniel argued that theological education was "vulnerable," which he described as an educational context where "what you're dealing with are really your deepest and most fundamental beliefs." Some students, like Daniel, felt a "need to be surrounded by people who agree with you on those kinds of things." He continued, "Right or wrong, I think you do feel a little threatened when you're around people who profoundly disagree with you on your most foundational beliefs when you're at a school where you're talking about and working on those beliefs constantly." Daniel's emergent clique, loosely integrated into the more liberal core, can be seen in the peer networks (compare figs. 3 and 7).

Theologically, Daniel reported that he had become *more* conservative while at MDS, a change tied closely to his view of scripture and how best to engage with it: "Morally, I think I have moved in a more conservative direction because I think I'm trying to read scripture a little more closely than I was coming in. So, on issues of gender and sexuality, for instance, I think I've moved in a more conservative direction. Issues of marriage, I think I've

moved in a more conservative direction." Regarding same-sex relationships, Daniel was nonaffirming at graduation and articulated a more unified theological justification for his position, one rooted in his interpretation of the Bible. Daniel argued that the New and Old Testament writers "pretty exclusively describe marriage as something that exists between a man and a woman for the purpose of bearing witness to Christ and the church." On the question of ordination, Daniel's view at the end of the program was clearer than at matriculation. He explained that the New Testament writers argued that same-sex relationships qualify "as unrepentant sin" and thereby conflict with ordination. Although Daniel felt his time at MDS had made him "more skeptical of both sides," he also noted that it had kept him "from going too far towards the progressive side of things." This skepticism was a reaction against what Daniel described as the more "left-leaning, theologically progressive" ideas he had been exposed to among his peers.

Daniel's close relationships with other conservative-leaning men who held strong, nonaffirming views also facilitated changes in his theological views. When asked at graduation what experiences were particularly impactful during his time at MDS, Daniel, like Connor, named "the peer part" as "really meaningful and very formative." He again described the depth of his peer relationships and their role in his theological formation: "We actually all live in the same apartment complex. So, it's been almost like a second collegiate type of experience in that way, where we pop over into each other's apartments . . . all our spouses are friends, we talk about theology, and we're involved in each other's lives."

Thus, coursework and peer relationships were essential and inherently intertwined aspects of Daniel's experience at MDS that led to changes in his theological views—in this case, making them more conservative and more consistently conservative in contrast to the primary trend. By insulating himself within a clique, Daniel stayed socially and cognitively shielded from liberalization. Daniel became somewhat more conservative (liberal at matriculation = 25; graduation = 17.5) while roughly maintaining the same level of ideological consistency (CS = .56).

DISCUSSION

Our findings shed new light on how student communities in higher education can foster the social psychological foundations for belief change. How peer networks form—their overall density, shape, and central actors—plays a key role in channeling how students process social change and frequently become more liberal. In both cohorts in our study, we found relatively more liberal students were more popular. Ideological consistency became increasingly important for determining who was popular and how likely students would be to change their beliefs to become more like those of their friends.

Although faculty and coursework are undoubtedly important factors in many contexts, our findings suggest that how students collectively process new ideas can be even more critical. It bears repeating that the students at MDS take nearly identical courses in the first year. Yet, how they changed beliefs was deeply rooted in their social connections with others. Although interpersonal ties mattered throughout the program, early integration into the peer network was key in shifting several beliefs in a more liberal direction and thereby resolving inconsistencies in beliefs concerning sexuality and gay clergy. For many students, these belief shifts involved significant changes in their worldview that fundamentally transformed their perspectives on God, the nature of the afterlife, and the validity of Christian claims.

The strong student communities formed at MDS offer a critical test of the proposed framework. A failure to find support for our framework of belief change among these students regarding these specific beliefs would leave little reason to move forward with probing scope conditions. Although interview responses provided important validation of the model, some students recounted nondominant pathways that point to possible scope conditions. Two sources of variation likely impact how strongly social and cognitive factors combine in students' processing of social change and the resulting belief liberalization: variation in organizational structures and institutional environments.

First, MDS has a specific organizational structure that might facilitate the formation of strong communities that in turn promote belief liberalization. Even though the program at MDS is not broadly representative of higher education in the United States, it resembles other high-commitment academic programs offered at US universities in promoting a social identity, with students feeling they are part of a collective "we." This feeling might be essential for fostering the kinds of peer networks capable of focusing belief-processing activities in a context of goodwill. MDS students also share a defined space on campus, with their own dining areas, a library, and a chapel. These areas also promote a sense of being a college within a college while affording the types of interactions that facilitate discussion. To the extent that these features are common in higher education, these environments might be key to students' belief liberalization in general. The structure of required coursework at MDS might also promote the rapid formation of an integrated peer network. In its structure and content, MDS is more akin to a liberal arts college than a major research university and might attract students for whom beliefs are of salient concern, such as undergraduates majoring in the humanities and social sciences who tend toward greater liberalization in college (Broćić and Miles 2021). However, from the outset, MDS also guides these students into peer networks, which promote changes in their beliefs. When colleges mandate that incoming students enroll in a set of core courses together—especially those that encourage discussions about contradictions in belief systems—we can anticipate that peer networks will emerge, at least in part, from these belief-processing activities.

Our findings, therefore, reveal the in situ ways that students facilitate the liberalization of religious beliefs in processing large-scale social change. Overall, variation in liberalization trajectories in higher educational programs might appear to be due to differences in requirements and course content that vary by organizational form (i.e., liberal arts colleges vs. research universities) and study areas (i.e., philosophy vs. engineering). However, they might instead be rooted in differences in how organizational structures channel students toward different social pathways. Students inclined to create and engage in peer networks focused on belief-processing activities are directed toward interactions that promote collective belief processing within the group. Some students might seek to isolate or insulate themselves from such peer effects, with varying degrees of success. Future research could examine specific changes in required coursework or shifts in the campus infrastructure that impact the depth and frequency of interactions (Festinger, Schachter, and Back 1950). Discontinuities in the ideological makeup of the student body or comparisons of institutions with more liberal versus more conservative student bodies might also inform the extent to which liberal-leaning students are generally more central in peer networks or whether such peer networks split along ideological lines. In our study of two matriculating cohorts, we suspect the COVID-19 pandemic influenced the higher ideological clustering among the 2020 cohort, even though this cohort was more liberal, on average, than the previous cohort. The 2020 cohort began online and did not return to in-person classes until spring 2021, postponing the more typical student interactions until the start of their second year.

Second, variation in institutional environments is undoubtedly a factor. Students who are untroubled by belief inconsistencies are unlikely to change their beliefs. Consequently, if students are not liberalizing as quickly as in the past (Mayrl and Uecker 2011), perhaps this trend is partly because students are not as troubled as they used to be. One of the most dominant trends shown in US college freshman surveys conducted since the early 1970s is that students seeking higher education to develop a meaningful philosophy of life has plummeted (Astin 1998; Brint et al. 2005). Our results suggest that when the broader institutional environment liberalizes, students become more likely to bring these issues into specific organizational contexts that may or may not facilitate the social and cognitive processes we outlined and tested. For example, the baby boom generation had a cultural awakening to many contradictions in the United States concerning race and gender. During such unsettled times, higher education programs can quickly facilitate the formation of peer networks that help to process ideological inconsistencies. Consequently, they become sites for channeling collective effervescence and clarifying belief systems in social movements (Collins 2001; Munson 2010). However, such processes rely on external environments where specific beliefs are explicitly linked in ways that provoke students' awareness and concern.

Ironically, the broader politicization of beliefs by various elites and cognitive authorities might intensify students' searches for ideological consistency in an unintended direction. In the United States, conservative religious thought leaders have sought to link a collection of beliefs with negative views toward same-sex relationships. In our sample, the overt linking of such beliefs increased tensions and might have prompted a cascade of more liberal belief changes. The cultural expansion of rights to various groups in society and the institutional role of the university in the diffusion of such norms suggest a constant source of new tensions and contradictions that student communities might process. Students entering the university, having previously been exposed to such norms and knowing higher education to be a liberal environment, will be inclined toward liberalization (Gross 2013). However, the mechanism through which such belief change occurs is anchored in the student community at least as much as other aspects of the institution. One implication is that if student communities are somewhat autonomous in processing beliefs, simply hiring more conservative faculty or demanding changes to curricula to reflect more conservative ideas might be ineffective or counterproductive for those who want to stem higher education's liberalizing effects. Our findings suggest that conservative cliques may naturally form as subgroups integrated within the peer network, fostering more conservative beliefs through engagement with the more liberal core.

In closing, our approach may inform future research on belief change in general. Prior research shows that belief change diminishes over the life course (Kiley and Vaisey 2020; Keskintürk 2022; Lersch 2023), likely due to some combination of the settling of worldviews (Fowler 1981; Clydesdale 2007) and the stabilization of social environments (Cornwell, Goldman, and Laumann 2021). The seminary students we studied are not particularly young; some are well into middle age ($\mu = 31.5$; $\sigma = 10.8$). Younger students, who are more likely to be unmarried and without children, are more likely to form the core of the peer network and, consequently, undergo more belief change. Older students, in contrast, are more likely to have established communities outside the university. Despite the greater biographical availability of younger students to forming new ties (McAdam 1986), even older students involved in the student community altered their beliefs, supporting the idea that age-related effects on belief stability are influenced by stabilizing social environments.[10] Thus, the belief changes we observed at MDS can be contextualized within a broader framework that connects group dynamics and attitudes, as

[10] In the Online Supplement, we examine the impact of age and other sociodemographics on how the peer group formed, as well as the overall amount of belief change from matriculation to the program midpoint for the 2020 cohort. We find that the combined effects of sociodemographic characteristics, including age, marital status, and gender, impact belief change less than the combined sociocognitive effects of network centrality and initial ideological inconsistency.

higher education fosters communities with distinct ideal-typical characteristics of gemeinschaft. Luhrmann (2012) argued that maintaining religious beliefs often requires considerable work, and religious communities are central to such efforts (see also Tavory 2019). Thus, an individual's embeddedness in a community facilitates belief change by heightening awareness of inconsistencies and collectively working toward their resolution (e.g., Wuthnow 1989*b*). Cognitive authorities might instigate such processes, but the group does the work of catalyzing consistent belief change. Having arrived as a faculty member at a small, all-female college in a remote area during the Great Depression, Newcomb (1943) might have found an environment particularly conducive to his findings on belief change. Despite the significant differences between our empirical setting and Newcomb's, we observed comparable results overall. Thus, although much has changed during the intervening decades, colleges and universities still function as distinct communities that systematically vary, making them vital locations for exploring key social psychological processes.

APPENDIX A

Survey Questions and Descriptive Statistics

TABLE A1
Belief Questions

Question and Response Categories	Variable
Do you believe that Adam and Eve were literal historical people?	
Yes, definitely	
Yes, probably	ADAM_EVE
Not sure	
No, probably not	
No, definitely not	
My religion would be the best one for all people no matter their background or current religion.	RELIG_BEST
Completely agree to completely disagree	
It is important for me to try to persuade people in other religions to accept my religion instead of their own.	PERSUADE
Completely agree to completely disagree	
Humans evolved from nonhuman life forms.	
Definitely true	
Probably true	EVOLVE
Not sure	
Probably false	
Definitely false	
Which of the following comes closest to your personal beliefs about the Bible?	BIBLE
The Bible is the actual word of God and is to be taken literally, word-for-word.	

TABLE A1 (*Continued*)

Question and Response Categories	Variable
The Bible is the inspired word of God, without errors. Some parts are meant to be symbolic, but all of it applies today.	
The Bible is the inspired word of God that still speaks to us today, but not all of it is historically accurate and/or some parts reflect the culture in which it was written and do not apply today.	
The Bible is not the inspired word of God, but its stories and wisdom contain much that is true and relevant today.	
The Bible contains a mix of legends, stories, and moral precepts with little relevance for today.	
Consensual sex between a married homosexual couple is morally acceptable.	MARRIED_GAY
Completely agree to completely disagree	
All religious leadership positions should be open to people regardless of their sexual orientation.	OPEN_LEADER
Completely agree to completely disagree	
Consensual same-sex sexual behavior should disqualify a person from holding a religious leadership position.	GAY_LEADER
Completely agree to completely disagree	
Consensual sex between a nonmarried couple in a committed relationship is morally acceptable.	SINGLE_SEX
Completely agree to completely disagree	
God will grant good health and relief from sickness to believers who have enough faith.	GOD_HEALTH
Completely agree to completely disagree	
Christians have a responsibility to work for justice for the poor.	JUST_POOR
Completely agree to completely disagree	
Those who oppose God will be punished in Hell.	HELL
Completely agree to completely disagree	
All people will eventually be saved.	SAVED
Completely agree to completely disagree	
The Bible contains some human errors.	BIBLE_ERRORS
Completely agree to completely disagree	
If the Bible says something happened, then I believe that it did.	BIBLE_REAL
Completely agree to completely disagree	
The Bible is the final authority in all matters of faith and conduct.	BIBLE_AUTH
Completely agree to completely disagree	
Noah built an ark and filled it with animals.	NOAH
Completely agree to completely disagree	
Moses led the Israelites out of Egypt.	MOSES
Completely agree to completely disagree	
David killed a warrior named Goliath.	DAVID
Completely agree to completely disagree	
Jesus raised Lazarus from the dead.	LAZARUS
Completely agree to completely disagree	

TABLE A2
DESCRIPTIVE STATISTICS AND CORRELATIONS FOR VARIABLES USED IN REGRESSION MODELS

	Variable	N	μ	σ	Min	Max	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Individual level													
(1)	Liberal	660	49.01	19.79	.00	90.84	1.00							
(2)	Ideological consistency (all beliefs)	663	60.39	9.05	44.46	100.00	.58	1.00						
(3)	Ideological consistency (sexual beliefs with other beliefs)	658	59.42	14.40	33.33	93.87	.54	.93	1.00					
(4)	Struggle with religion/spirituality	665	1.29	1.14	.00	4.00	.29	.19	.20	1.00				
(5)	Struggle to reconcile sexual and religious beliefs	533	1.52	1.25	.00	4.00	−.14	−.37	−.35	.09	1.00			
(6)	Eigenvector centrality	421	.07	.18	.00	1.00	.18	.14	.10	.12	.08	1.00		
(7)	Age	692	31.50	10.84	21	78	−.17	−.11	−.07	−.11	−.09	−.16	1.00	
	Dyadic													
(1)	Belief change matriculation to midpoint	1,368	−.02	.22	−.84	1.00	1.00							
(2)	Belief change midpoint to graduation	1,054	.00	.20	−1.00	.84	−.29	1.00						
(3)	Belief at matriculation	1,368	.51	.33	.00	1.00	−.29	−.13	1.00					
(4)	Belief at midpoint	1,054	.49	.34	.00	1.00	.36	−.31	.79	1.00				
(5)	Predicted change in belief at midpoint (peer mean at matriculation)	1,368	.02	.30	−.89	1.00	.38	.08	−.68	−.42	1.00			
(6)	Predicted change in belief at graduation (peer mean at midpoint)	1,054	.02	.29	−1.00	1.00	−.30	.34	−.43	−.61	.61	1.00		
(7)	Increased consistency from projected change at midpoint	1,368	.26	.44	.00	1.00	−.03	.00	−.02	−.04	−.07	−.05	1.00	
(8)	Increased consistency from projected change at graduation	1,054	.28	.45	.00	1.00	.09	−.03	−.01	.05	−.01	−.10	0.33	1.00

REFERENCES

Abelson, Robert P., Elliot Aronson, William J. McGuire, Theodore M. Newcomb, Milton J. Rosenberg, and Percy H. Tannenbaum, eds. 1968. *Theories of Cognitive Consistency: A Sourcebook*. Rand-McNally.

Adamczyk, Amy, Katharine A. Boyd, and Brittany E. Hayes. 2016. "Place Matters: Contextualizing the Roles of Religion and Race for Understanding Americans' Attitudes About Homosexuality." *Social Science Research* 57:1–16.

Adamczyk, Amy, and Cassady Pitt. 2009. "Shaping Attitudes about Homosexuality: The Role of Religion and Cultural Context." *Social Science Research* 38 (2): 338–51.

Albuja, Analía F., Sarah E. Gaither, Diana T. Sanchez, and Jaelyn Nixon. 2024. "Testing Intergroup Contact Theory Through a Natural Experiment of Randomized College Roommate Assignments in the United States." *Journal of Personality and Social Psychology* 127 (2): 277–90.

Allport, Gordon W. 1954. *The Nature of Prejudice*. Addison-Wesley.

An, Weihua, Roberson Beauvile, and Benjamin Rosche. 2022. "Causal Network Analysis" *Annual Review of Sociology* 48 (1): 23–41.

Astin, Alexander W. 1998. "The Changing American College Student: Thirty-Year Trends, 1966–1996." *Review of Higher Education* 21:115–35.

Baldassarri, Delia, and Peter S. Bearman. 2007. "Dynamics of Political Polarization." *American Sociological Review* 72 (5): 784–811.

Baldassarri, Delia, and Andrew Gelman. 2008. "Partisans Without Constraint: Political Polarization and Trends in American Public Opinion." *American Journal of Sociology* 114 (2): 408–46.

Baunach, Dawn Michelle. 2011. "Decomposing Trends in Attitudes Toward Gay Marriage, 1988–2006." *Social Science Quarterly* 92 (2): 346–63.

Berger, Peter. 1967. *The Sacred Canopy: Elements of a Sociological Theory of Religion*. Anchor Books.

Binder, Amy, and Kate Wood. 2013. *Becoming Right: How Campuses Shape Young Conservatives*. Princeton University Press.

Bishop, Bill, and Robert G. Cushing. 2009. *The Big Sort: Why the Clustering of Like-Minded America Is Tearing Us Apart*. Houghton Mifflin Harcourt.

Boutyline, Andrei, and Stephen Vaisey. 2017. "Belief Network Analysis: A Relational Approach to Understanding the Structure of Attitudes." *American Journal of Sociology* 122 (5): 1371–447.

Bramlett, Brittany H. 2012. "The Cross-Pressures of Religion and Contact with Gays and Lesbians, and Their Impact on Same-Sex Marriage Opinion." *Politics and Policy* 40 (1): 13–42.

Brandt, Mark J., and G. Scott Morgan. 2022. "Between-Person Methods Provide Limited Insight About Within-Person Belief Systems." *Journal of Personality and Social Psychology* 123 (3): 621–35.

Brechwald, Whitney A., and Mitchell J. Prinstein. 2011. "Beyond Homophily: A Decade of Advances in Understanding Peer Influence Processes." *Journal of Research on Adolescence* 21 (1): 166–79.

Brint, Steven, Mark Riddle, Lori Turk-Bicakci, and Charles S. Levy. 2005. "From the Liberal to The Practical Arts in American Colleges and Universities: Organizational Analysis and Curricular Change." *Journal of Higher Education* 76 (2): 151–80.

Broćić, Miloš, and Andrew Miles. 2021. "College and the 'Culture War': Assessing Higher Education's Influence on Moral Attitudes." *American Sociological Review* 86 (5): 856–95.

Bryson, Bethany P. 2020. "When Survey Respondents Cheat: Internet Exposure and Ideological Consistency in the United States." *International Journal of Communication* 14:24.

Cameron, A. Colin, Jonah Gelbach, and Douglas L. Miller. 2011. "Robust Inference with Multiway Clustering." *Journal of Business and Economic Statistics* 29:238–49.

Campbell, David E., Geoffrey C. Layman, and John C. Green. 2021. *Secular Surge: A New Fault Line in American Politics*. Cambridge University Press.
Cancino-Montecinos, Sebastian, Fredrik Björklund, and Torun Lindholm. 2020. "A General Model of Dissonance Reduction: Unifying Past Accounts via an Emotion Regulation Perspective." *Frontiers in Psychology* 11:540081.
Centola, Damon, and Michael Macy. 2007. "Complex Contagions and the Weakness of Long Ties." *American Journal of Sociology* 113 (3): 702–34.
Clydesdale, Tim. 2007. *The First Year Out: Understanding American Teens After High School*. University of Chicago Press.
Collins, Randall. 2001. "Social Movements and the Focus of Emotional Attention." Pp. 27–44 in *Passionate Politics: Emotions and Social Movements*, edited by Jeff Goodwin, James M. Jasper, and Francesca Polletta. University of Chicago Press.
Converse, Philip E. 1964. "The Nature of Belief Systems in Mass Publics." Pp. 206–61 in *Ideology and Discontent*, edited by D. E. Apter. Free Press.
Cooper, Joel. 2019. "Cognitive Dissonance: Where We've Been and Where We Are Going." *International Review of Social Psychology* 32 (1): 1–11.
Coppock, Alexander, and Donald P. Green. 2022. "Do Belief Systems Exhibit Dynamic Constraint?" *Journal of Politics* 84 (2):725–38.
Cornwell, Benjamin, Alyssa Goldman, and Edward O. Laumann. 2021. "Homeostasis Revisited: Patterns of Stability and Rebalancing in Oder Adults' Social Lives." *Journals of Gerontology: Social Sciences* 76 (4): 778–89.
Coronges, Kathryn A., Katherine A. Miller, Christina I. Tamayo, and Morten G. Ender. 2013. "A Network Evaluation of Attitudes Toward Gays and Lesbians Among U.S. Military Cadets." *Journal of Homosexuality* 60 (11):1557–80.
Crocker, Jennifer, Susan T. Fiske, and Shelley E. Taylor. 1984. "Schematic Bases of Belief Change." Pp. 197–226 in *Attitudinal Judgment*, edited by J. Richard Eiser. Springer New York.
DellaPosta, Daniel. 2018. "Gay Acquaintanceship and Attitudes Toward Homosexuality: A Conservative Test." *Socius* 4:1–12.
DellaPosta, Daniel. 2020. "Pluralistic Collapse: The 'Oil Spill' Model of Mass Opinion Polarization." *American Sociological Review* 85 (3): 507–36.
Deterding, Nicole M., and Mary C. Waters. 2021. "Flexible Coding of In-depth Interviews: A Twenty-First-Century Approach." *Sociological Methods and Research* 50 (2): 708–39.
DiMaggio, Paul, Ramina Sotoudeh, Amir Goldberg, and Hana Shepherd. 2018. "Culture Out of Attitudes: Relationality, Population Heterogeneity and Attitudes Toward Science and Religion in the US." *Poetics* 68:31–51.
Eagle, David, Josh Gaghan, and Erin Johnston. 2023. "Introducing the Seminary to Early Ministry Study." *Religious Education* 118 (2): 133–45.
Evans, John H. 2010. *Contested Reproduction: Genetic Technologies, Religion, and Public Debate*. University of Chicago Press.
Fang, Ruolian, Blaine Landis, Zhen Zhang, Marc H. Anderson, Jason D. Shaw, and Martin Kilduff. 2015. "Integrating Personality and Social Networks: A Meta-Analysis of Personality, Network Position, and Work Outcomes in Organizations." *Organization Science* 26 (4):1243–60.
Feldman, K., and T. Newcomb. 1969. *The Impact of College on Students*. Jossey-Bass.
Festinger, Leon. 1957. *A Theory of Cognitive Dissonance*. Stanford University Press.
Festinger, Leon, Stanley Schachter, and Kurt Back. 1950. *Social Pressures in Informal Groups: A Study of Human Factors in Housing*. Harper.
Flache, Andreas, Michael Mäs, Thomas Feliciani, Edmund Chattoe-Brown, Guillaume Deffuant, Sylvie Huet, and Jan Lorenz. 2017. "Models of Social Influence: Towards the Next Frontiers." *Journal of Artificial Societies and Social Simulation* 20 (4): 2.
Fowler, James W. 1981. *Stages of Faith*. HarperCollins.

Friedkin, Noah E., Anton V. Proskurnikov, Roberto Tempo, and Sergey E. Parsegov. 2016. "Network Science on Belief System Dynamics under Logic Constraints." *Science* 354 (6310): 321–26.
Goldberg, Amir, and Sarah K. Stein. 2018. "Beyond Social Contagion: Associative Diffusion and the Emergence of Cultural Variation." *American Sociological Review* 83 (5): 897–932.
Gross, Neil. 2013. *Why Are Professors Liberal and Why Do Conservatives Care?* Harvard University Press.
Guest, Greg, Kathleen M. MacQueen, and Emily E. Namey. 2011. *Applied Thematic Analysis*. Sage Publications.
Haidt, Jonathan, Jesse Graham, and Craig Joseph. 2009. "Above and Below Left-Right: Ideological Narratives and Moral Foundations." *Psychological Inquiry* 20 (2–3): 110–19.
Hainmueller, Jens, Jonathan Mummolo, and Yiqing Xu. 2019. "How Much Should We Trust Estimates from Multiplicative Interaction Models? Simple Tools to Improve Empirical Practice." *Political Analysis* 27(2): 163–92.
Halaby, Charles N. 2004. "Panel Models in Sociological Research: Theory into Practice." *Annual Review of Sociology* 30:507–44.
Hart-Brinson, Peter. 2014 "Discourse of Generations: The Influence of Cohort, Period and Ideology in Americans' Talk About Same-Sex Marriage." *American Journal of Cultural Sociology* 2:221–52.
Hart-Brinson, Peter. 2016. "The Social Imagination of Homosexuality and The Rise of Same-Sex Marriage in The United States." *Socius* 2:2378023116630555.
Heider, Fritz. 1946. "Attitudes and Cognitive Organization." *Journal of Psychology* 21 (1): 107–12.
Heise, David R. 1987. "Affect Control Theory: Concepts and Model." *Journal of Mathematical Sociology* 13 (1–2): 1–33.
Hill, Jonathan P. 2011. "Faith and Understanding: Specifying the Impact of Higher Education on Religious Belief." *Journal for the Scientific Study of Religion* 50:533–51.
Hoffer, Eric. 1951. *The True Believer: Thoughts on the Nature of Mass Movements*. Harper & Row.
Hunzaker, Mary Beth Fallin. 2016. "Cultural Sentiments and Schema-Consistency Bias in Information Transmission." *American Sociological Review* 81 (6): 1223–50.
Johnston, Erin, Anna Holleman, and Laura Krull. 2024. "'There's Theology and Then There's the People I Love . . .': Authority and Ambivalence in Seminarians' Attitudes Toward Same-Sex Relationships, Marriage, and Ordination." *Sociology of Religion* 85 (3): 298–323.
Jost, John T., and Mahzarin R. Banaji. 1994. "The Role of Stereotyping in System Justification and the Production of False Consciousness." *British Journal of Social Psychology* 33 (1): 1–27.
Kashima, Yoshihisa. 2000. "Maintaining Cultural Stereotypes in the Serial Reproduction of Narratives." *Personality and Social Psychology Bulletin* 26 (5): 594–604.
Katz, Elihu, and Paul F. Lazarsfeld. 1955. *Personal Influence: The Part Played by People in the Flow of Mass Communications*. Free Press.
Keskintürk, Turgut, 2022. "Religious Belief Alignment: The Structure of Cultural Beliefs from Adolescence to Emerging Adulthood." *Poetics* 90:101591.
Kiley, Kevin, and Stephen Vaisey. 2020. "Measuring Stability and Change in Personal Culture Using Panel Data." *American Sociological Review* 85 (3): 477–506.
Kozlowski, Austin C. 2022. "How Conservatives Lost Confidence in Science: The Role of Ideological Alignment in Political Polarization." *Social Forces* 100 (3): 1415–43.
Lerner, Melvin J. 1980. "The Belief in a Just World." Pp. 9–30 in *The Belief in a Just World*. Perspectives in Social Psychology. Springer.
Lersch, Philipp M. 2023. "Change in Personal Culture over the Life Course." *American Sociological Review* 88 (2): 220–51.

Levandusky, Matthew. 2009. *The Partisan Sort: How Liberals Became Democrats and Conservatives Became Republicans*. University of Chicago Press.
Luhrmann, Tanya M. 2012. *When God Talks Back: Understanding the American Evangelical Relationship with God*. Knopf.
Luker, Kristin. 1984. *Abortion and the Politics of Motherhood*. University of California Press.
Martin, John Levi. 2002. "Power, Authority, and the Constraint of Belief Systems." *American Journal of Sociology* 107 (4): 861–904.
Mayrl, Damon, and Jeremy E. Uecker. 2011. "Higher Education and Religious Liberalization Among Young Adults." *Social Forces* 90 (1): 181–208.
McAdam, Doug. 1986. "Recruitment to High-Risk Activism: The Case of Freedom Summer." *American Journal of Sociology* 92 (1): 64–90.
Meyer, John W., Francisco O. Ramirez, David John Frank, and Evan Schofer. 2007. "Higher Education as an Institution." Pp. 187–221 in *Sociology of Higher Education: Contributions and Their Contexts*, edited by Patricia Gumport. Johns Hopkins University Press.
Munson, Ziad. 2010. "Mobilizing on Campus: Conservative Movements and Today's College Students." *Sociological Forum* 25 (4): 769–86.
Newcomb, Theodore M. 1943. *Personality and Social Change: Attitude Formation in a Student Community*. Dryden Press.
Newcomb, Theodore M. 1967. *Persistence and Change: Bennington College and Its Students After 25 Years*. Wiley.
Osgood, Charles E., and Percy H. Tannenbaum. 1955. "The Principle of Congruity in the Prediction of Attitude Change." *Psychological Review* 62 (1): 42.
Pascarella, Ernest T., and Patrick T. Terenzini. 1991. *How College Affects Students: Findings and Insights from Twenty Years of Research*. Jossey-Bass.
Peffley, Mark A., and Jon Hurwitz. 1985. "A Hierarchical Model of Attitude Constraint." *American Journal of Political Science* 29 (4): 871–90.
Petty, Richard E., Duane T. Wegener, and Leandre R. Fabrigar. 1997. "Attitudes and Attitude Change." *Annual Review of Psychology* 48 (1): 609–47.
Rawlings, Craig M. 2020. "Cognitive Authority and the Constraint of Attitude Change in Groups." *American Sociological Review* 85 (6): 992–1021.
Rawlings, Craig M. 2022. "Becoming an Ideologue: Social Sorting and the Microfoundations of Polarization." *Sociological Science* 9:313–45.
Rawlings, Craig M., and Clayton Childress. 2024. "The Polarization of Popular Culture: Tracing the Size, Shape, and Depth of the 'Oil Spill.'" *Social Forces* 102 (4): 1582–607.
Rawlings, Craig M., and Noah E. Friedkin. 2017. "The Structural Balance Theory of Sentiment Relations: Elaboration and Test." *American Journal of Sociology* 123 (2): 510–48.
Rawlings, Craig M., Jeffrey A. Smith, James Moody, and Daniel A. McFarland. 2023. *Network Analysis: Integrating Social Network Theory, Method, and Application with R*. Cambridge University Press.
Rokeach, Milton. 1954. "The Nature and Meaning of Dogmatism." *Psychological Review* 61:194–204.
Sacerdote, Bruce. 2001. "Peer Effects with Random Assignment: Results for Dartmouth Roommates." *Quarterly Journal of Economics* 116 (2): 681–704.
Schwadel, Philip. 2016. "Does Higher Education Cause Religious Decline? A Longitudinal Analysis of the Within- and Between-Person Effects of Higher Education on Religiosity." *Sociological Quarterly* 57 (4): 759–86.
Sherkat, Darren E., Kylan Mattias De Vries, and Stacia Creek. 2010. "Race, Religion, and Opposition to Same-Sex Marriage." *Social Science Quarterly* 91 (1): 80–98.
Tavory, Iddo. 2019. *Summoned: Identification and Religious Life in a Jewish Neighborhood*. University of Chicago Press.
Taylor, Howard F. 1970. *Balance in Small Groups*. Van Nostrand Reinhold.

Thagard, Paul, and Karsten Verbeurgt. 1998. "Coherence as Constraint Satisfaction." *Cognitive Science* 22 (1): 1–24.

Turner-Zwinkels, Felicity M., and Mark J. Brandt. 2022. "Belief System Networks Can Be Used to Predict Where to Expect Dynamic Constraint." *Journal of Experimental Social Psychology* 100:104279.

Vaisey, Stephen. 2009. "Motivation and Justification: A Dual-Process Model of Culture in Action." *American Journal of Sociology* 114 (6): 1675–715.

Velasco, Kristopher. 2023. "Transnational Backlash and the Deinstitutionalization of Liberal Norms: LGBTQ+ Rights in a Contested World." *American Journal of Sociology* 128 (5): 1381–429.

Wuthnow, Robert. 1989*a*. *The Struggle for America's Soul: Evangelicals, Liberals, and Secularism*. W. B. Eerdmans.

Wuthnow, Robert. 1989*b*. *Communities of Discourse: Ideology and Social Structure in the Reformation, the Enlightenment, and European Socialism*. Harvard University Press.

Wuthnow, Robert. 2007. *After the Baby Boomers: How Twenty- and Thirty-Somethings Are Shaping the Future of American Religion*. Princeton University Press.

Zerubavel, Noam, Peter S. Bearman, Jochen Weber, and Kevin N. Ochsner. 2015. "Neural Mechanisms Tracking Popularity in Real-World Social Networks." *Proceedings of the National Academy of Sciences* 112 (49): 15072–77.