

Cultural Schemas of Religion, Science, and Law
in Talk about Social Controversies

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Abstract

We analyze cultural schemas of religion, science, and law reflected in the way ordinary citizens discuss contemporary social controversies and assess whether these schemas accord with a modernization narrative or whether people's experiences with each of these institutional arenas lead them to adopt realistic or critical schemas not predicted by modernization accounts. Focus group participants in three metropolitan areas were asked to talk about one of three vignettes on faith-based prison ministries, parents' refusal of medical treatment for a child on religious grounds, or pre-implantation genetic diagnosis of human embryos. We find that people's everyday experiences, grounded in specific institutional contexts, produce perceptions of the domains of religion, science and law that are not fully captured by the modernization account. Further, our findings illustrate that schemas of law, science, and religion are varied, and evoked by social context and the specific issues under consideration. Schemas that do not fit the modernization framework provide a way for people to address concerns about power, and effectively level the playing field between more and less rationalized social domains. Future research on a broader range of issues is needed to develop a theory of when different schemas of law, science and religion are activated.

Keywords: schemas, religion, science, law, modernization, expertise

Introduction

Modernization theory, a formative influence on sociology, frames controversies over the role of religion in public life as endemic, a logical outgrowth of secularization and specialization (Weber 2002). Conflicts between religion and science have been a major focus of research, often understood in cognitive terms as fights between representatives of a once-dominant traditional belief system and champions of a now-dominant rational system vying to define the truth about human origins and nature (Evans and Evans 2008; Evans 2011). But we agree with those who argue that social controversies over religion are best understood as political fights waged by an array of secular and religious elites vying for cultural authority and institutional control (Smith 2003). Religious authority claims spark conflict with other rationalized modern systems of authority besides science, especially law and the bureaucratic state (Evans 2010; Kidd 2010; Binder 2009), and even religion-science controversies play out in legal venues that can change the way that people think about both arenas (Superfine 2009). Moreover, legal venues foster their own substantive claims about the right way to adjudicate specific conflicts and about religion's appropriate role in public life. An adequate understanding of social controversies involving religion must account for citizen understandings of religion, science, and law.

We set out to discover how ordinary citizens think and talk about a range of contemporary social controversies, drawing on focus group and interview data and choosing controversies in which religious discourses come into conflict with the claims of scientific and legal experts. Our analysis reveals the cultural schemas of religion, science, and law that shape how people talk about the conflicts highlighted in our focus group vignettes. Many of the schemas we find frame law and science as rational and progressive and religion as irrational, and affirm the legitimacy of scientific and legal authority in public life, understanding all three

realms in the way modernization theory depicts them. This makes sense; while modernization theory is an academic discourse, a cultural narrative of modernization has influenced public discourse as well (Evans and Evans 2008).

But the majority of the schemas reflect people's perceptions of the complexity and shortcomings of modern legal and scientific institutions as well as aspects of religion that are de-emphasized or ignored in modernization accounts. People hold ambivalent views of law resulting from the contrast between law's abstract principles and its operation in real-world settings (Ewick and Silbey 2003), voice non-religious moral concerns about science (Gauchat 2015), and focus on religion as a legitimate grounding of morality and identity that is relevant in the public arena (Ammerman 1997). Understanding social controversies as conflicts over cultural authority, we argue, offers a better framework for understanding citizen assessments of social controversies involving religion, in part because it directs our focus away from cognitive beliefs and truth claims and toward people's experiences with religion, science, and law in everyday life that complicate the abstract depictions of all three realms contained in modernization narratives.

Modernization and Religion, Science, and Law

Modernization theory underpins sociology's foundational narrative of society becoming ever more rationalized and secularized, as elaborate classificatory systems and means-ends instrumentality replace older bases of belief and behavior like tradition and religion (Weber 2002). In the modern "age of experts" (Brint 1996), authority is rooted in expertise, or specialized knowledge that is acquired through training and verified by credentials. Institutional realms become more distinct, governed by specific sets of action principles, rules for applying those principles, and resources and tasks that the domain's experts claim to encompass. These

transitions provoke concerns about loss of meaning and democratic governance under conditions of unequal knowledge distribution (Schudson 2006; Turner 2003). Modernization theory argues that secularization is inevitable (Edgell 2012) and that conflict between religious elites and secular experts is endemic. Both science and law are framed as highly rationalized forms of authority, controlled by experts, and together with the bureaucratic state, comprising a modern replacement for religious and other traditional bases of authority (Weber 1978). Within rationalized modernity, law and science themselves represent competing ideal-typical institutional logics (Stryker 2000).

A particular focus of sociological research has been religion-science controversies, which Evans and Evans (2008) argue have generally been understood as epistemological, that is, as logical conflicts between two competing understandings of the truth about human origins and human nature. They argue that this epistemological conflict narrative has come to shape not only academic but also popular discourses about the nature of religion and science, influencing citizens' views of social controversies. Most people embrace science as a modern, rational form of authority and many come to view religious claims as irrational and outdated; religious leaders, especially conservative ones, push back against scientific and other experts who seek to reduce religious influence in public life. Some research supports this view. For example, Gauchat (2012) finds that religious conservatives have lost trust in science since the 1970s. Wuthnow (2012) shows that religious Americans by and large accede to scientific authority because they must do so to be perceived as "reasonable."

Beyond Modernization – Citizen Encounters with Social Controversies

Modernization approaches privilege coherence; institutional realms are treated as bounded and organized according to a dominant, unitary logic. But in fact, coherence is always relative and incomplete (Cerulo 2010, 2001), a partial achievement by elites who engage in ideological and boundary maintenance projects. This insight is at the heart of Smith's (2003) reframing of conflicts over religion in the public arena as battles over cultural authority waged by institutional elites rather than as inevitable conflicts driven by logically irreconcilable epistemological differences between traditional and rationalized belief systems (cf. Evans and Evans 2008). It is also crucial for understanding how ordinary citizens assess social controversies. People do not always experience "religion," "science" or "law" as coherent, bounded, abstract realms, and may not be concerned with whether they provide an internally coherent and exhaustive set of truth claims. People encounter each realm in their everyday lives, in the media and in social contexts anchored in primary groups and institutions (families, schools, churches, courts, workplaces, science fairs) that constitute thought communities and shape cognition (Haidt and Kesebir 2010, Zerubavel 2009) – including understandings of religion, science, and law.

A modernization perspective helps us to understand some aspects of contemporary social controversies involving religion, because the modernization narrative has been influential not only in the academy but also in public discourse. But it obscures other aspects of how citizens understand these controversies, for three reasons. First, a focus on an epistemological conflict between religion and science ignores how social controversies implicate core legal principles and forms of authority. Superfine (2009) argues that public understandings of both religion and science are shaped by actions taken within legal arenas, and the legitimacy of legal arenas to

adjudicate competing religious and scientific claims shapes public responses to social controversies (Binder 2009). Stryker (2000) maps the distinctive institutional logics of science and law that render them ideal-typical competitors within rationalized modernity. Second, everyday experiences with law and science in specific institutional contexts may undercut their claims to rational authority. Assessments of scientific credibility depend on cultural templates learned in context (Gieryn 1999), and secular identities may foster distrust of science (Gauchat 2015). People may understand legal claims to rationality as a rhetoric designed to protect credibility (Edelman et al. 1999), and cultural heuristics influence how people frame an issue as “legal” and act vis-à-vis formal legal systems (Ewick and Silbey 1998, 2003; Hull 2006).

Third, people many people view religion primarily as a locus of morality and identity rather than a source of propositional truth claims about the nature of the universe that by definition conflicts with science (Edgell 2012). Many progressive religious groups have been deeply influenced by modernized forms of thought, and their members find potential conflicts between religion and science easy to reconcile (Wuthnow 2012). Some religious conservatives accept scientific knowledge claims but insist that social policy must account for moral concerns about which science is silent (Gauchat 2012; cf. Evans 2011). Most religious Americans are pragmatic, moral, and tolerant, and their religious involvement is sustained less by epistemological coherence and more by a desire for community and the expression of identity (Ammerman 1997).

If social controversies are cultural battles of authority between institutional elites that play out in specific contexts, citizen assessments of such controversies may be shaped by the modernization narrative, but they will also be more complex than modernization theory would predict, influenced by both positive and negative experiences with religious, legal, and scientific

authority in everyday life. Our study was designed to explore this complexity and unearth the cultural schemas that shape ordinary citizens' understandings of all three realms.

Data and Methods

We held 12 focus groups each in the Boston, Houston and Twin Cities (Minneapolis-St. Paul) metro areas; these sites capture regional variation in religious culture, history, and adherence rates, and ensure that our findings are not overly influenced by the specific religious makeup of a single geographic location. Groups had an average of 8 participants, took 60-90 minutes, and were facilitated by the co-authors and graduate research assistants; they were audio and video recorded and transcribed. Focus groups are especially valuable for accessing interpretive frameworks, normative assumptions, and the construction of meaning through collective interactions (Wilkinson 1998). Reflecting our focus on social controversies involving religion, in each field site we conducted groups with religious conservatives, religious liberals, non-religious people, and mixed religious identification; within these categories we conducted groups that were primarily middle class or mixed class.

We asked participants to discuss a vignette based on one of three social controversies (see Table 1). Interested in competing forms of expertise and authority regarding social controversies, we intentionally created vignettes for which the domains of law, science and religion offer competing lenses for interpretation and prescriptions for action. Our focus on these three domains reflects the belief that science and law represent rationalized domains of expertise *par excellence*, whereas religion is a form of authority that has been directly challenged by processes of rationalization but retains relevance as a source of moral expertise in the U.S. Focus group participants read the vignettes and were asked to insert themselves into the scenario in a

decision-making role. Facilitators used discussion questions and background information to guide the focus group conversations.

[INSERT TABLE 1 ABOUT HERE]

In the *prison ministry* vignette, participants were asked to advise their state's department of corrections on whether to enter into a contract for faith-based prison ministry services. The *medical refusal* vignette presented a case in which parents were taken to court for refusing, on religious grounds, to have their 13-year-old son receive medical treatment for a highly curable form of cancer. The *pre-implantation genetic diagnosis (PGD)* vignette asked participants to imagine themselves on a citizen advisory board tasked with making recommendations on regulating the genetic screening of human embryos in the U.S.

We also conducted interviews, both before and after the group discussion, with two participants from each group. Participants were given the vignettes at the pre-interview and asked to describe their initial views. They were re-interviewed 4-6 weeks after the focus group to assess whether and how their views were affected by participation in the focus group, and to get their subjective impressions of the focus group experience.

Study participants were recruited through a combination of strategies in each field site. We contacted churches for the religious focus groups but also used other forms of outreach, including working with community and online groups and advertising. Our final sample included 281 focus group participants; we conducted 68 pre-interviews (and telephone post-interviews with 61 of the 68). The overall sample was roughly three-quarters middle class and one-quarter working class, with even gender representation and good racial diversity (roughly two-thirds White, 17 percent African-American, and 20 percent Hispanic/Latino, Asian, mixed race or other). The sample was more highly educated than the general U.S. population, with 59

percent having a college degree or higher. Religious identification was majority Christian (55 percent), with 23 percent having no religious identification and the remainder “other” (including non-Christian religious, “spiritual” and multiple religious identifications). Roughly one third were under age 30, one third 30-49, and one third 50 or above. Three quarters lived in cities and one quarter in suburbs or rural areas, and about one third of the sample was from each field site. More information about the sample is available on request.

Our analytic approach follows the qualitative methodology developed by cultural anthropologists and sociologists who use the talk of ordinary people to uncover the cultural schemas and moral orientations that underlie their perspectives on particular subjects (Pugh 2013). This approach engages individuals in what Quinn (2005) calls expository or explanatory discourse, with a particular focus on problem-solving. The resulting talk is then coded for recurring metaphors and keywords, as well as the cultural models or schemas reflected in what people say.

Our initial round of coding was largely inductive, with the domains of religion, science and law as competing forms of authority serving as sensitizing concepts. We coded a sample of transcripts (using Atlas.ti software), then collaboratively developed specific code sets for each vignette, and used them to code the entire data set. We then drafted analytic memos for each focus group, and lengthy descriptive memos for each set of focus groups with the same vignette. For the analysis of cultural schemas presented here, the co-authors did a close interpretive reading of all transcript passages (“quotations”) that received codes relevant to each domain (religion, science and law), and inductively developed detailed schemas codes.

Findings

We found many schemas consistent with the modernization perspective, but the majority of the quotations reflected realistic or critical appraisals of science, religion, and law.

Modernization Schemas

The schemas that we classified as consistent with a modernization perspective appear in Table 2 (below), in order of their frequency in the transcripts. We classify these schemas as modernization schemas for one of two reasons: either the schema reflects views of the individual domains that would be predicted by modernization theory (i.e., views of science or law as rational and progressive, or views of religion as irrational), or it reflects an understanding of the modern world as constituted by distinct and non-overlapping domains of knowledge and authority, meaning that individual domains may produce conflicting perspectives, and certain domains may be judged irrelevant to certain kinds of subject matter or social issues.

[TABLE 2 ABOUT HERE]

Science: Modernization schemas focused on science include schemas associating science with truth, progress, and noble intentions, as well as schemas viewing science as conflicting with religion, being superior to religion, or being irrelevant because the issue at hand falls outside its realm of expertise.

Medical refusal groups often featured lengthy discussions of the horrific nature of chemotherapy, with expressions of sympathy for Jimmy and his parents emphasizing how understandable it is that someone would seek an alternative to such an invasive treatment. But comments reflecting a *science as truth* schema assert that science rather than sympathy is the basis for making a good decision. Many participants in our prison ministry focus groups

exhibited a similar confidence that knowing the proper course of action was a straightforward matter of getting “the data” and “the statistics” and “the evidence” on whether prison ministry programs work to reduce recidivism rates. Paul, a middle-class non-religious participant in Boston, commented: “I would advise the state to get as much evidence as they could on performance indicators.” Not only were people comfortable with the idea of social science research, but some had a fairly sophisticated grasp of what constitutes good research that leads to valid and reliable findings – comments about adequate sample sizes, selection effects, and the time frame for assessing recidivism (“six months is not long enough”) were relatively common.

In our PGD and medical refusal groups, some comments were rooted in schemas about the nobility of science (*science as noble*) and science as a source of human progress (*science as progress*). Dylan, a working-class non-religious participant in the Twin Cities, expressed a profound confidence in the trustworthiness of science and scientists when he said:

In general, I think the medical community is culturally viewed as fairly trustworthy and I would imagine that they are fairly trustworthy. I think most of the less ethical things that, like, the pharmaceutical or medical industries might do are things that we as a culture kind of engender from them and not necessarily things that are systemic from medicine. I feel like as a whole these are good guys and they probably are trying to help us out.

The *science as irrelevant* schema was evident in two main kinds of arguments – one about the human factors that science cannot address, and one about legality. Gigi, a middle-class liberal Protestant in the Twin Cities, made a humanistic argument when she said:

I think, in terms of science, the numbers on recidivism is the easy thing to measure and it's hard to measure and predict and describe someone else's

spiritual journey and transformation . . . So I'm hoping in the proof there'd be room for more than the numbers in the report. There'd be room for some stories.

If the prison ministry program could “help just one inmate” it would be worth it, Gigi said, whether recidivism declined or not – a view shared by many. This view did not reflect a rejection of science, but rather a recognition that its domain of expertise does not extend to the spiritual realm. Some in the medical refusal groups also voiced the *science as irrelevant* schema when they observed that the question was ultimately legal rather than scientific. Llewelyn, a middle-class Presbyterian in Houston, said that even if there were a “hundred percent probability” that the chemotherapy would cure Jimmy: “I don't think it would change anything for me. I think it's still the right of the child . . . to decide what method of treatment they want to go with. I don't think the success rate is the question here, it's about the rights.”

Schemas that pit science and religion against each other (*science trumps religion, science and religion conflict*) appeared most often in the medical refusal groups. Alice, a middle-class Buddhist in Boston, said that while for her and people like her “science is our truth,” she understands that “it's not like that everywhere . . . some people, religiously, feel differently, so I feel people should have the freedom to choose.” She said she felt sorry for Jimmy's parents and the choice they had to make. Christine, a middle-class non-religious participant in the same group, also sympathized with the parents, but she reflected the modernist view that *science trumps religion* when she stated: “I think freedom of religion is more compelling in general than due process, I guess, but, again, either way, since it's medical, I would overrule.”

Law: Modernization schemas of law were those that depicted law as a coherent system, run by experts and applied universally to maintain social order. Some schemas also highlighted the conflict between law and religion, with speakers either asserting that law now embodies society's

moral code or, by contrast, arguing that morality is the realm of religion rather than science.

Depictions of law as the authoritative arbiter on a given issue at least implicitly place law in a hierarchical relationship over religious forms of authority and knowledge.

Modernization schemas of progress and rationality were evident in many discussions of law and legal actors, especially in the medical refusal focus groups. Schemas of *law as a system*, *law as universal*, *law as an expert realm*, and *law as social order* anchor comments that display substantial trust in the legal system, and in judges and lawyers, to sort out the complex and difficult questions at the intersection of children's rights, parents' rights, religious identity and expression, and the obligations of the medical community and the state to protect children and "do no harm." Such comments usually imply confidence in judges' ability to evaluate relevant expertise and make a good decision. Legal actors are themselves experts, and rely on other forms of expertise as well.

Comments rooted in a *law as social order* schema invest law with the power to produce rational outcomes that resolve social conflicts. Leeann, a middle-class Pentecostal in the Twin Cities, understands the legal system as the arbiter of potentially conflicting rights: "Well just like any of our laws in the United States, we have all these freedoms, they're the freedom and we have our rights and all this stuff. But we have punishments and everything because where it crosses and starts to harm someone else is where the line is drawn, right?" For others, trust was fostered by the sense of *law as a system*, a set of interlocking procedures, precedents, and principles that keep legal decisions from being arbitrary and idiosyncratic. Garth in the Twin Cities talked about judges exercising special expertise within a system: "[A]s a judge, I think you probably are bound by what the law says on what you can and cannot rule anyway, so. Obviously I'm not [a judge], so I don't know what those boundaries are."

Many felt that the law can be trusted in part because it applies to everyone in the same way (*law as universal*). Gloria, a middle-class Muslim in Boston, said, “It’s against the law to murder, it doesn’t matter if you’re going to murder yourself, it’s against the law.” In the prison ministry groups people also talked about the law as universal. Lena and Samuel got into a discussion in a Houston focus group about what happens when someone breaks the law but has not done anything morally wrong. Samuel, a middle-class Unitarian, plays devil’s advocate, arguing that if he were “busted on a low-level drug charge” it would not make him a bad person. Lena, a working-class Protestant, retorts, “I never said that you were evil,” but she also goes on to say that “according to the laws of our government you broke the law, and the decision was wrong, and you’re not above the law.” Overall, law’s universal nature was understood as part of what makes it possible for our society to make rational decisions about competing rights, to protect the vulnerable, and to forge order out of the potential chaos of complex social issues.

Study participants responded to the conflict between religious and legal claims with varying degrees of sympathy. In a discussion of the medical refusal vignette, Benjamin, a middle-class Catholic in Houston, said in no uncertain terms, “I guarantee no one would hesitate to remove this child from the parents’ care if they were physically abusing this child to the point where it had a risk of dying.” Garth, a middle-class Pentecostal in the Twin Cities, remarked:

I think it’s really difficult when you have a case of conflicting liberties, so to speak. You have almost like a case of religious rights or freedom of religion versus obligations to take care of a minor. . . . Which right trumps another? In the case of a minor, I think there’s some obligations to do what’s best for the minor, but if you’re a person of faith, and we don’t know a whole lot of what type of faith they have, but if they really felt like this was wrong, and if they strongly

believe that this affected their eternal destiny or however they believed it, you know. What if it was more important to them for them to even potentially die and not sin or whatever their belief was, then how do you weigh what's more important or valid, right? It's really difficult.

Garth's sympathy with the validity of the religious beliefs of Jimmy and his parents places him in the minority of our focus group participants, but he is not alone in identifying an inherent conflict in this case between the ability of religious individuals to make decisions based on their faith and legal principles that dictate a state role in protecting vulnerable citizens like minors.

Speakers who took law's side in the conflict between law and religion sometimes voiced a schema of *law as authoritative*. In the medical refusal groups, the *law as authoritative* schema appeared when participants made arguments about the way that the law on the books constrains the judge's options, and when they argued that it is legitimate for the judge or the court system to decide these kinds of cases where religious identity or expression may conflict with a state interest in protecting a minor. Roger, a working-class Baptist in Boston, spoke of the contrast between his own preferences and the legal constraints faced by the judge: "It would be a totally different answer if it was me, but if I'm the judge I don't have any choice, I got to force him to do the therapy, and if his parents refuse, then I have to have him removed from their custody." (This emphasis on precedent also illustrates an understanding of *law as a system*; indeed, it was not unusual for participants' talk to simultaneously express multiple schemas.)

The conflict between law and religion also emerged in debates about which domain was the proper arbiter of moral matters. There was some disagreement about the relationship between law and morality. Bao, a middle-class Catholic in a Houston focus group, engaged his fellow participants on the question of whether the laws governing PGD and similar technologies

are legitimate. While acknowledging the *law as authoritative* in determining whether and how PGD can proceed, he wanted his fellow group participants to think about whether these laws were based on common moral standards (*law as a moral code*). He was not making much headway persuading some fellow group members to his point of view, and at one point he asked: “I’m talking about, on what moral ground is it based? If you could just make up laws without a moral background, then what’s the point of having the law?” Tara, a middle-class Baptist, specifically invokes a schema asserting that *legal and religious morality are distinct* when she responds to Bao, telling him that he is talking about what is right, but that “right is not the same thing as law.” Tara’s remark implies that questions of morality are sometimes beyond the scope of law.

Religion: Besides the schemas depicting religion in conflict with science or law, modernization schemas of religion focused on religion’s irrelevance to contemporary concerns and the irrational nature of religious belief and practice.

The schema of *religion as irrelevant* was most commonly voiced in the prison ministry and medical refusal groups, although there were a few mentions in the PGD focus groups as well. Some participants in our prison ministry groups were offended at the idea of conflating religion with morality, reflecting a modernist skepticism about religion as the source of truth and questioning the relevance of prison ministry for reforming prisoners. As Leah, a middle-class Seventh-Day Adventist, told us in a Houston focus group, “You don’t have to be Christian or Muslim to be moral.” In our PGD focus groups, participants argued that it is not legitimate to make public policy based on particular religious beliefs because religious pluralism undercuts the authority of religion in policy matters. In a post-group interview, Boston participant Miguel, a working-class pagan, responded this way when asked if he could think of “good reasons” why

PGD should be banned:

Well, definitely not religious reasons. There's simply too many religions, and just because one religion thinks it's wrong, that's not going to necessarily coincide with another religious view, so I would not ban it based on religious views. I think the primary reason would be if it was affecting society in a negative way, at least negative for the majority of society.

In the medical refusal groups there was quite a bit of debate about whether the real issue was religious rights, parental rights, or perhaps the right of any individual – including 13-year-old Jimmy in the vignette – to refuse unwanted medical treatment. When a Houston focus group was asked whether it makes a difference that the parents objections' to conventional medical treatment were based on religious reasons, Mira, a middle-class non-religious participant, immediately responded that it “doesn't make a difference to me, because I think everyone has the right to choose their own medical treatment.” In a Twin Cities focus group conducted with members of an evangelical Protestant congregation, seven out of eight participants argued that the real issues in the vignette were, first, the individual's right to choose treatment, and second, the parents' rights to decide what is best for the family – regardless of whether religion was the basis for the choices. Although these participants clearly valued religious freedom, they made their argument in terms of modernist assumptions that acknowledge the primacy of legal rights.

Other focus group participants argued that religion is irrelevant because it is irrational. This *religion as irrational* schema was especially common in our prison ministry and medical refusal focus groups. And while some comments focused on “religious extremism” or on cults, many argued that even mainstream religion is a source of irrational bias that keeps people from making good, science-based decisions. Carolyn, a middle-class Catholic, took a strong stance

about the irrationality of religion in one of our Boston prison ministry groups:

The whole approach that it's this religion that will cure you, this religion that will heal you, this religion that will rehabilitate you. That's very.... [laughter] rigid, that's just a different planet, that's not realistic. You need a psychologist in there, [laughter] you need people who know how to work with addiction and you know, it's a process, it's not a... [crosstalk] that's a fantasy world, that's not reality.

By labeling faith in religion's power to heal addiction "a fantasy world," Carolyn firmly aligns herself with a view of religion as an irrational, outdated solution to modern problems. Similar views were common in our medical refusal groups. In one exchange in Boston, middle-class church-goer Matt said, "I'm skeptical of using religious belief for avoiding mainstream medicine," and in a follow-up comment Ross, a middle-class non-religious participant agreed by saying, "I think that any religious argument that goes in the face of science is not a valid one." Ross goes on to say that it "is illogical and unscientific and un-human not to treat" Jimmy. Ross clearly views science in a hierarchical position over religion (reflecting the schema of *science trumps religion*), and the "illogical" nature of religious belief is part of the reason.

Realist and Critical Schemas

Most of the cultural schemas in participants' talk did not fit neatly into the modernization narrative, but rather reflected critical or realistic appraisals of these domains that are more consistent with recent scholarship on how people's experiences within particular social contexts mold their perceptions of religious, scientific and legal authority. Realist and critical schemas portray science and law as imperfect, inconsistent, incoherent – at times even destructive – human institutions and practices. These schemas also reflect perceptions of religion that are

orthogonal to the modernization narrative of religion's subordination to the rational expertise of science and law, depicting religion as a significant force in both positive and negative ways. We found realist and critical schemas about all three domains (religion, science and law) and across all three vignettes. Table 3 (below) lists these schemas in order of frequency.

[INSERT TABLE 3 ABOUT HERE]

Science: Schemas of science that were not consistent with the modernization account reflected realistic or critical appraisals of how science actually operates in the social world. The schema of *science as imperfect* frames science as capable of producing invalid knowledge, constantly evolving, and the product of human effort and thus subject to human error. Participants discussing the medical refusal vignette invoked this schema when they argued that treatments are constantly evolving, and doctors can be wrong. These comments tended to give doctors and scientists the benefit of the doubt in terms of their intentions ("they want to heal, they want to help"), but at the same time acknowledged that "science isn't always exactly accurate." In the PGD discussions, people wondered whether faulty screening procedures would cause people to destroy healthy embryos or implant embryos with genetic markers for serious disease. In the prison ministry discussions, participants sometimes questioned whether the evaluation studies were done right: Did they control for important confounding factors? Did they compare the programs to similar ones devoid of religious content? Speakers often backed up their assertions of science's imperfection by referencing real-world experiences in which science fell short (a loved one's misdiagnosis, a study with misleading results due to poor research design, etc.).

Some schemas of science went beyond acknowledging imperfection to overtly criticize scientific actors and institutions. The most prominent critical schemas of science pointed to the arrogance of science or scientists, or framed science as a business. A third critical schema,

which appeared only a few times, framed science as unnatural. In the medical refusal discussions, the idea of *science as arrogant* took two main forms: participants accusing Western medicine and doctors of a bias against alternative treatments, and viewing medical practitioners as condescending in their dealings with patients. One Twin Cities participant said her own experiences with doctors and their “God-complexes” had made her wary of accepting their judgment, and a Houston participant commented that everyone had probably had the experience of a “self-righteous doctor” who recommended a course of treatment that turned out to be “the worst treatment of your life.” Several participants faulted American doctors for not being open to alternative therapies. Mia, a middle-class Catholic participant in the Twin Cities, shared: “I’ve seen a lot of, you know, cases where traditional or herbal medicine, alternative medicine does work . . . Western beliefs are different than others, and just as much as we believe in Western medicine, other cultures believe in their medicine and have been using it for years and have seen progress.” In the discussions of the PGD vignette, concerns about the arrogance of science mostly focused on the need to regulate the practice because of the power doctors and scientists have to misuse embryo screening technology for unethical purposes. Historical examples such as eugenics and Nazi medicine were often invoked to illustrate such risks.

The critical schema of *science as business* appeared most frequently in the PGD discussions. Participants speculated that PGD would be impossible to regulate because people with money always find someone willing to accommodate their desires. Some participants linked this schema to a dystopian view of the future. Wayne, a middle-class non-religious participant in the Twin Cities, explained his support of regulating PGD this way:

[W]ith technology, if people can achieve things, or if it can be done, people will do it and find a way to make money. I mean, history has shown that time and

again . . . I seriously do not doubt that this kind of technology wouldn't be capable of producing a Brave New World scenario. And I think that's when regulation needs to come in, because people, affluent people who run big companies who pretty much control the world will be reproducing people who can continue that, and thereby kind of keep this new capitalist monarchy in effect, and I think that would be very bad.

Although not all participants framed the stakes in such dramatic terms, the schema of science as business often was expressed with a certain fatalistic resignation, grounded in the belief that companies cannot resist new sources of profit and wealthy consumers will get their needs met.

Law: Realist and critical schemas of law included critical schemas depicting the legal or criminal justice system as dysfunctional and productive of inequality, and realist schemas acknowledging that law is sometimes quite rigid, that it must be updated to change with the times, and that legal actors are fallible. These schemas contradict modernist schemas of law as an authoritative, coherent, expert system that is applied universally in an egalitarian fashion.

We identified three main critical schemas of law: *law as dysfunctional*, *criminal justice as dysfunctional*, and *law fosters inequality*. The critical schemas of law were concentrated in the discussions of the prison ministry vignette and the medical refusal vignette. When focus group participants articulated the schema of *law as dysfunctional* in response to the medical refusal vignette, they mostly focused on the problem of courts and judges, or “government” or “the state,” exerting too much power over individuals’ choices. Some participants felt the court would be violating the family’s privacy, or their religious freedom, by forcing the son into treatment. Manny, a middle-class non-religious participant in the Twin Cities, stated: “I think courts have way too much power than they should . . . a court, a judge, well, you know, they’re

supposed to be, what, fair and balanced, but they're really not. But they should not order a family to undergo medical treatment that basically is killing their son by, it's maybe curing [him]."

In discussions of the prison ministry vignette, the schema of law's dysfunctionality emerged in a few different contexts. Some speakers who saw the prison program as a clear violation of the separation of church and state complained that this separation is mandated by law on the books but is often violated in practice. Other participants complained about the content of existing laws, such as overly harsh sentencing guidelines or liability laws that give employers incentive to avoid hiring people with criminal records. Some of these assertions of law's dysfunctionality also overlapped with the related schema that *law fosters inequality*. For example, several participants argued that the failure to implement and enforce laws in a fair and neutral way contributes to race-based inequalities. Chase, a middle-class non-religious participant in Houston, said he was less concerned about the idea of state-funded religious ministries than about the way the current system contributes to racial inequalities: "The Justice Department has done repeated studies that blacks tend to get sentenced more than whites, they tend to be sentenced to longer sentences than whites. Whites tend to get probation where blacks, and now Hispanics, tend not to . . . [they] feel very victimized by the system and I think it sets the course for them in terms of recidivism."

Indeed, the majority of the critical schemas of law that emerged in discussions of the prison ministry vignette were schemas of *the criminal justice system as dysfunctional*. This took various forms, including critiques of prison conditions, prisons run by for-profit corporations, judicial corruption, sentencing disparities, irrational criminal statutes, lack of support for prisoners' reintegration into society, and overly punitive approaches to criminal justice. Samuel, a middle-class Unitarian in Houston, noted that a large proportion of the prison population is

serving time for minor drug crimes; he supported the prison ministry program because prison generally does not help prisoners: “It’s like putting someone in a box whenever they’ve been bad . . . everyone goes back to prison unless they get serious help. Prison makes things worse. I don’t know why you’d want to do that to people.” But other participants pointed to the dysfunctionality of the criminal justice system to make the opposite point, namely that the prison ministry program was a mere “Band-aid” that would not address the complex roots of criminal behavior or address the systemic problems in the current system. At the end of a Boston focus group, the facilitator asked each participant to reflect on what they had taken from the conversation. Mack, a Catholic participant, stated: “I think the prison reform needs to be a complete overhaul of the system rather than a specific, do we support this ministry or not. This seems like maybe something for like 40 years ago . . . it needs to be on a much grander scale of . . . what gets people there, as opposed to what their options are while they’re there.”

Realist schemas of law included perceptions of *law as rigid*, *judges as fallible humans*, and the idea that *law must change with the times*. Participants viewed the *law as rigid* when it fails to accommodate the particularities of individual cases or when a literal legal interpretation causes problems. In a Boston group discussing the prison ministry vignette, for example, a working-class non-religious participant named Troy argued:

Skip the Constitution and all that, because the Constitution is being violated all the time with the government. So you have an individual, say they got into a fight and they’re in jail for getting into a fist fight or something, the way it is now you can do time for getting caught driving with a suspended license three times, they’ll give you a year. You know, so it’s like a person could be incarcerated for the silliest thing, and they could be a Christian and, you know, they just want to get

out, not only do they want to get out but they want to be able to get away from the constant savagery that goes on in prisons. So I don't know, I feel like the more opportunities that are provided to help one that is incarcerated better themselves, the more the merrier I would say, as opposed to using technicalities as restrictions to a person's development whether spiritually or mentally or through society-wise.

Later in the discussion, Troy revealed that he had himself spent time in prison because of rigid application of sentencing guidelines for what he considered a trivial violation. This personal experience likely influenced his view that the legal principle of church-state separation represented a “technicality” that would serve as a “restriction” to helping prisoners better themselves, another case of overly rigid application of the law producing an irrational outcome.

The schema that *law must change with the times* primarily appeared in discussions of the PGD vignette, where several participants made the case that technological advancements like embryo screening sometimes outpaced the law's ability to regulate them, so law would need to adapt and update itself to remain relevant and effective. This schema implicitly contradicts the modernist assumption of law's rationality by suggesting that laws are sometimes out of step with real-world conditions. The schema of *judges as human* appeared in medical refusal discussions. Some participants made remarks that reflected a view of judges as fallible and idiosyncratic actors who introduced an element of unpredictability into legal processes despite the seeming black-and-white quality of written laws.

Religion: Schemas of religion grounded in real-world experiences could reflect a positive or negative view of this domain, and differed from a modernist view of religion insofar as they did not assume religion's irrationality or irrelevance in the age of rationalized expert systems.

Realist schemas of religion pointed to religion as a positive moral force in the social world,

acknowledged that religious identities are both fluid and deep, or directly “talked back” to modernist framings of religion by asserting that religion indexes something real, that religions themselves constitute authoritative and coherent systems of knowledge, and that religion is not inherently incompatible with rationalized systems like science and law. Critical schemas of religion depicted religious groups as coercive and driven by ulterior motives, rather than merely dismissing religion as irrational.

The schema of *religion as moral force* was reflected in participants’ observations about how religious belief or identification correlates with morality in everyday life. In the prison ministry groups, this schema emerged in discussions of how to reconnect prisoners with basic moral values, or in debates about whether a multi-faith prison ministry program could be designed that would draw on a shared morality that spans different religions. Often these comments implied that criminality stems from a lack of moral socialization, and that prison ministry could help prisoners to learn to change the behavior that led to imprisonment.

In the PGD discussions, the schema of *religion as moral force* mainly came up when people talked about how individuals would approach the question of whether embryo screening should be regulated. A number of participants felt that religious people would be more likely to apply moral standards to the decision (e.g. not playing God, or the preservation of life), and some participants explained that their own view on the morality of PGD was inseparable from their religious convictions. In some cases, the moral principles that religion provides were understood as a corrective to the arrogance or lack of accountability of commercialized scientific practice.

Some focus group participants told us how their own religious beliefs provide an authoritative guide in thinking through social issues like those described in our vignettes (*religion as authoritative*). When we asked Jane, a middle-class Christian in Boston, for her

reaction to the PGD vignette in her pre-interview, she immediately said, “I refer everything back to scripture, to the word of God.” However, most of the comments based on the *religion as authoritative* schema were referring to other people’s beliefs. When we asked whether religious and non-religious people might view PGD differently, many responded that of course religious people would have religiously-based objections to PGD, especially religious people who are “strict Catholic,” “fundamentalist,” or “right-to-life” conservatives.

The *religion as real* schema subverts the modernization narrative by asserting that the supernatural realm is real, and that God is real and acts in the world. Kevin, a middle-class non-religious participant who identifies as “spiritual,” told his Twin Cities focus group: “I’m not a religious per se person, but I do believe in divinity. I believe in spiritual divine energy. I believe that’s who we are. I believe the non-physical reality is in fact the reality. I think that we are spiritual beings in a physical body right now, having a physical experience . . . That is the reality.” And Charles, a Presbyterian, stated in his pre-interview in Houston: “I know miracles happen, I know there are a lot of instances of people who heal outside of medicine.” In the prison ministry focus groups, the *religion as real* schema was evoked in multiple stories about the power of God to change lives. Most were told from the speaker’s own perspective, but speakers sometimes acknowledged that others have experiences that should not be dismissed. As middle-class Boston participant Dave explained in his pre-interview: “I myself am secular, but even I understand that... if it works, it works. If somebody having a religious epiphany, if they want to call it that, keeps them from recidivism, then go forward with it.” Others spoke about how “the Word” or the gospel could change lives, even for those who are not conscious believers.

While modernization schemas highlight conflicts between religion and the rationalized expertise of science or law, the *science and religion compatible* schema asserts that some forms of religion are compatible with science. Marla, a middle-class non-religious participant in Boston, said this about the PGD vignette in her pre-interview:

I think that religious people are going to tend to feel that no embryo should ever be destroyed and a secular person is going to be, and you know it's not an absolute because there are some religions where they are a little more scientific or rational, but a secular person in general is going to be somewhat more open minded about this issue.

In the medical refusal groups, some expressed the *science and religion compatible* schema by arguing that God can work through doctors, or that there is no inconsistency in looking to both God and science for healing. Charles, the Presbyterian in Houston, stated:

[W]e had someone come through about a month ago who teaches about spiritual healing, who is very experienced in it. And turned out though that he needed heart bypass surgery, so he went in the hospital and had heart bypass surgery . . . And he said "I go to the doctors for the things that they say that they can fix, and I go to the Lord for the things that they say that they can't or they might not be able to" . . . and it's not like the two have to be in conflict . . .

Thus some speakers draw on their own experiences to refute the inherent contradiction between religion and science posited by the modernization account, and to emphasize that religion can, itself, be modern, and reasonable.

Other realist schemas of religion focused on the nature of religious identity, acknowledging both the depth of religious identification in some people's lives and the fact that

people's religious identity sometimes evolves in response to the aging process or social contexts. The schema of *religion as chosen identity* was most common in the prison ministry and medical refusal discussions. Some participants were skeptical of the prison ministry program because they viewed religion as something that cannot be forced onto people. Participants sometimes drew on their personal histories with religious belief and practice to illustrate that people can choose to change their religion (or abandon it), or that people at some point must choose whether to continue in the religion they were raised in. Ted, a working-class Protestant in the Twin Cities, shared that his wife had recently started coming to his church after decades in a different denomination, but he had never pressured her to change denominations because individuals must make these choices for themselves. In this way, the schema of *religion as chosen identity* formed the basis for Ted's position in support of the prison ministry program; just as his wife had chosen to change denominations, the prisoners could choose whether to participate in the program. In discussions of the medical refusal vignette, the schema of *religion as chosen identity* emerged as participants discussed the religious affiliations of Jimmy and his parents. People sometimes questioned whether Jimmy could have freely chosen his own religious beliefs at the young age of 13. Some participants responded to arguments about the parents having ulterior motives for claiming a religious basis for withholding treatment with the assertion that the parents' long involvement with the Native American religion signaled that this was a meaningful choice they had made.

The schema of *religion as deep identity* reflected an understanding of faith or religious belief as something that is a core part of the identity of believers, and therefore deserves to be taken seriously. In the medical refusal discussions, this schema emerged as people discussed the family's religious beliefs as a justification for refusing conventional medical treatment. In the

discussions of the prison ministry vignette, much of the discussion of *religion as deep identity* centered on the issue of whether prisoners could or should be asked to set aside their own religious beliefs to participate in a program representing a different religious approach. Woody in Boston, a middle-class Jewish participant, shared that he had attended the services of other religions, and if he were in the position of the prisoners, he would probably participate in the prison ministry program but it would not have much impact on his religious views: “I would go, but if it wasn't my religion then I probably wouldn't get very much out of it, because the teachings that would be being presented would often be contrary to what I believe.”

Critical schemas of religion focused on coercion and ulterior motives. The idea of *religion as coercive* was common in discussions of the prison ministry vignette, with participants describing conservative Christians as “pushy” and disrespectful of others’ choices. Others worried that participating prisoners would experience “brainwashing” and “indoctrination,” or be “victimized by the dominant religion.” Often these comments referred to Christianity more broadly or even all of organized religion, and not just the specific ministry program. For example, Venus, a middle-class Protestant in Boston, explained her skepticism about the prison ministry program by stating: “I think that . . . from my own background, it makes me more skeptical of religious programs, just because I think there is an element of coercion in any religion.” In discussions of the medical refusal vignette, the schema of *religion as coercive* mainly emerged when participants speculated about the nature of the family’s involvement with the online Native American religion, with some wondering whether the family was involved in a fringe or cult-like religious group. For example, Boston participant Roger who is middle-class and spiritual but not religious, recounted in his pre-interview a recent news story about people dying at a sweat lodge ceremony in Arizona, and then explained: “So that’s kind of the, and Jim

Jones of course and the Branch Dravidians, so whenever you get a religion, you really want to make sure it's not some sort of a wacko cult." The implication of Roger's statement is that all religions are not necessarily cults, but all religions deserve to be treated with suspicion.

People voicing the *religion and ulterior motives* schema question the sincerity of religious actors. In the prison ministry discussions, many participants asserted that prisoners would participate in the program as a means to an end (getting parole, getting to see family, etc.) rather than out of a sincere desire to become a better person. Some participants also ascribed ulterior motives to the group running the prison ministry. In discussions of the medical refusal vignette, some participants questioned the depth and sincerity of the parents' Native American beliefs and wondered why they had initially allowed the child to receive chemotherapy if it conflicted with their religion. Some speakers expressed this skepticism about the parents' religious beliefs as an example of a broader phenomenon of using religion to justify choices that are not really grounded in religious belief. For example, Jennifer, a middle-class Pentecostal in the Twin Cities, observed: "I just think the whole religious card gets abused. I mean, people are constantly pulling that out, 'Oh it's against my faith, I don't have to do that.' You know, sometimes it's just like, they're just, just abusing it. [laughs] And so I tend to give it less credit because it's been abused so often." Whereas modernization schemas dismiss religion as irrational or irrelevant to modern life, these critical schemas of religion highlight how religious actors and institutions maintain influence through practices of coercion.

Discussion and Conclusion

What does talk about social controversies reveal about the cultural schemas that shape Americans' understandings of religion, science, and law? Overall, we find that the modernization approach must be supplemented with an understanding of how everyday experience shapes understanding of all three realms to adequately account for how people interpret the relevance of legal, scientific, and religious claims in discussion controversial social issues. Expressions of realist and critical schemas outnumbered expressions of modernization schemas in our dataset overall (1,038 instances vs. 692). We also find that it matters which specific controversies are being discussed. Within the PGD and prison ministry discussions critical and realist schemas were more common, but modernization schemas were slightly more common in the medical refusal groups. We do not attribute too much importance to the ratio of modernization to critical/realist schemas in our data, because discussions of other issues might yield a different mix. Our vignette topics were not chosen with the competing theoretical accounts in mind, so there is no reason to believe the results are systematically biased; but likewise our account is not exhaustive.

In discussions of these three particular issues, modernization schemas are prominent but not dominant. Critical and realist schemas reflecting perceptions of legal, scientific and religious authority that depart from the modernization narrative often appear to be grounded in real-world experiences occurring in various institutional contexts, be they the clinic run by a doctor with a "God complex," the courtroom where sentence severity correlates with skin color, or the church community that fosters a deep sense of individual identity. Our findings suggest that the modernization narrative is sometimes relevant to the ways people understand the domains of religion, science and law today, but it does not appear dominant. Future research on a broader

range of contemporary social issues is required to make strong claims about when modernization schemas are most prominent and when they are eclipsed by critical and realist schemas that challenge the modernization narrative.

Indeed, one of our most important findings is that the cultural schemas varied across our three vignette topics, and this suggests that schemas are contextually evoked and that the specifics of the issue matter. Skepticism about the criminal justice system and mass incarceration coexists with trust in the courts to adjudicate complicated questions about religious identity and medical care for minors, and concerns about the arrogance of Western medicine or the profit motives of “Big Pharma” coexist with confidence in social science’s ability to evaluate the effectiveness of social programs. Someone who argues that prison ministries may be too aggressive or abusive in their proselytizing might respect that Catholics have sincere concerns about the destruction of human embryos associated with PGD. We call for continued research on the complex ways in which cultural frameworks for understanding controversial issues depend upon which scientific claims are being made (Evans 2011), which religious beliefs or practices are in play, and which aspects of the legal system are relevant to the issues at hand.

Such contextual specificity may partially account for the strong presence of positive (modernization) schemas of science in our data. Recent work finds declines in public trust in science (Gauchat 2012), and our PGD groups reflected this distrust in scientific progress, especially when the science is embedded in big business. But in our medical refusal and prison ministry groups, many participants equated science with truth and beneficial progress, and speakers often asserted that scientific expertise was relevant to the issue at hand, and that scientific authority trumped religious authority in cases of direct conflict. This highlights the contextual nature of cultural schemas of science.

Cultural schemas regarding the legal realm were more mixed. Sometimes the relevance of law was taken for granted, and many participants showed confidence in the legal system to adjudicate complicated questions of conflicting rights and obligations. But others leveled harsh critiques against law generally, and criminal justice specifically, as dysfunctional or productive of social inequality, pointing to racial bias in criminal justice or to judges intruding into family matters. Again, contextual specificity mattered; particular vignettes made particular schemas of law relevant.

The cultural schemas of religion reflected perhaps the most polarized understanding of any of the domains. Modernization schemas cast religion as irrational and irrelevant to resolving modern controversies, and critical schemas depicted religion as coercive and driven by ulterior motives. But these negative schemas of religion co-existed with positive schemas that framed religion as moral, authoritative, and real, and as a freely chosen and deep component of identity. The modernization schemas of religion as irrelevant and irrational mainly emerged in the medical refusal and prison ministry discussions, whereas the realist/critical schemas appeared across all three vignette topics, albeit in forms particular to the issue under discussion.

Schemas rooted in everyday experience can implicitly challenge the modernization account in revealing the relations of power that modernization theories elide. Some of our participants did view religion as irrational and valued scientific progress, or viewed law as a universalizing expert system that underpins modern social order. However, the modernization framework does not capture people's concerns about power and identity that are grounded in the realities of everyday interactions with the institutions of religion, science, and law. Realist and critical schemas of religion portray religion as a powerful and even coercive force in modern life. Likewise, concerns about the accountability of judges and courts, or abuses within the criminal

justice system, represent concerns about law's misuse of power. Concerns about the arrogance of scientists and about how business interests can corrupt scientific practice reflect concerns about how the actual conduct of science is embedded within a particular political economy that enables real and potential abuses of power. These critical schemas refer to legal and scientific *practice*, and implicitly challenge the modernization narrative as a highly idealized account of how science and law actually work.

In a way, the critical and realist schemas of the lived experience framework level the playing field when it comes to how ordinary people assess religion, science, and law. These schemas elevate the significance of religious authority and moderate enthusiasm about the expert systems of science and law, effectively counterbalancing the more optimistic assumptions about the consequences of rationalization embedded in strong modernization discourses. By bracketing narratives of secularization, realist schemas of religion assume the relevance of religion to controversial social issues because of religion's role in anchoring morality and individual identity. And by focusing on the actual conduct of science and the systems that carry out the law, realist/critical schemas of law and science bracket claims about progress and rationality and emphasize the desire to have legal and scientific practices be more responsive to contemporary values and social needs.

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Table 1: Text of Vignettes

Prison Ministry Vignette	Medical Refusal Vignette	PGD Vignette
<p>Your state’s Department of Corrections is considering a contract with a faith-based prison ministry program operated by the Prison Fellowship Ministries. The contract would put in place a voluntary, 18-month residential rehabilitation program for eligible prisoners. The stated goal of the program is to transform prisoners’ lives and reduce recidivism (return to criminal activity after release from prison). Program staff would select inmates for participation based on their potential for rehabilitation. The program would be housed in a prison wing that offers greater privacy and better facilities than the rest of the prison. The program would include a package of services required for prison release, more freedom of movement, more contact with family, and support at parole board hearings. The program would be run by staff and volunteers and would be highly structured, requiring participants to attend Bible study classes, Friday night revival meetings, and Sunday church services. Other program elements (e.g. substance abuse, anger management) would be delivered from an explicitly religious perspective.</p> <p>Some citizens and prisoner groups object to the contract because they believe it violates the separation of church and state, or because it allows the state to deliver extra services to prisoners willing to participate in the program, or because they worry that not all religious beliefs will be accepted or supported by the program. Others argue in favor of the contract, pointing out that the program is completely voluntary, there is an urgent need to rehabilitate prisoners, and studies have shown that similar programs have worked in other states. You have been selected to serve on a citizen advisory panel to provide public input to the Department of Corrections on whether to go forward with the program contract. How do you think the panel should advise the state?</p>	<p>Jimmy Sloan, a 13-year-old boy from Webber County, Iowa, was diagnosed with a curable form of cancer and received an initial round of chemotherapy treatment. Unhappy with the side effects of the chemotherapy and interested in exploring other treatment options, Jimmy and his parents decided not to continue the chemotherapy and radiation treatment recommended by their doctors. Instead they switched to an alternative medicine approach that included herbs and vitamins. They also sought second opinions from the Mayo Clinic and the University of Iowa; specialists at both of these institutions backed up the recommendation for chemotherapy and radiation. Jimmy’s physicians reported the case to child protection authorities. The Webber County attorney filed a petition accusing Jimmy’s parents of child neglect and endangerment, and sought a court injunction to force the Sloans to continue the recommended treatment, which medical doctors stated had an 80-95% probability of curing the cancer. In court papers, Jimmy asserted that the recommended treatment conflicted with his religious beliefs. The Sloans self-identify as Lutherans, but also belong to a Native American religious group that favors natural-medicine approaches to healing.</p> <p>If you were the judge in this case, what would you do? Would you grant the injunction forcing the parents to continue the chemotherapy treatment for Jimmy? If they refused, would you remove Jimmy from their care?</p>	<p>Preimplantation genetic diagnosis (PGD) refers to the practice of screening human embryos for particular genetic traits prior to implanting the embryo in a woman’s uterus. Embryos are first created through in vitro fertilization (meaning that human sperm and egg are combined outside the womb, using laboratory procedures). These embryos are then examined at the genetic level, usually with the goal of identifying embryos carrying undesirable traits (such as markers for serious diseases, or chromosomal abnormalities that reduce the odds of a successful pregnancy), so that prospective parents can decide which embryos they will or will not use to create a pregnancy. If acceptable embryos are identified, the final step is to implant the embryos and attempt to start a pregnancy. Unused embryos are usually destroyed, although they can also be preserved indefinitely or donated for use by other prospective parents.</p> <p>You have been invited to sit on a citizen advisory board that will make recommendations on whether and how to regulate the practice of embryo screening in the U.S. As a board member, you must form an opinion on the following issues:</p> <ul style="list-style-type: none"> ▪ Whether PGD should be regulated at all in the United States; ▪ What medical conditions PGD can be used to screen for; and ▪ What non-medical (or “social”) characteristics such as intelligence or eye color) PGD can be used to screen for.

Table 2: Modernization Schemas

<u><i>Schema</i></u>	<u><i>Description</i></u>
Science as truth	Science is the source of truth, best available basis for a decision
Religion as irrelevant	Religion is not the relevant source of authority or expertise for the issue at hand
Law as authoritative	Law is the authoritative source of knowledge for the issue at hand, and it is self-evident how it should be applied
Religion as irrational	Religion is or can be irrational, a thus a poor basis for decisions; religious people are or can be irrational
Law as a system	Law is a system, with coherent, inter-related parts that work together; e.g., precedent logically drives subsequent outcomes
Law as universal	The law is universal, neutral, and impartial; it applies equally to all
Law and religion conflict	Law and religion are inherently or potentially in conflict, with different bases for authority
Science as irrelevant	Science is not the relevant source of authority or expertise for the issue at hand
Law as expert realm	The law is the province of experts (either legal experts, or other kinds of experts who are consulted by legal actors to settle legal issues)
Science trumps religion	When science and religion offer conflicting perspectives or solutions, science should prevail
Science and religion conflict	Science and religion are inherently or potentially in conflict, with different bases for authority
Science as noble	Science and scientists are noble, have good intentions, make the world a better place
Law as a moral code	Law is the basis of social morality, encapsulates a shared moral code, safeguards moral principles
Science as progress	Science involves a progressive building and unfolding of truth, which makes it valuable
Science on the march	The “march of science” is powerful and unstoppable
Law as social order	Law provides constraint and order in the social world, allows society to function
Legal and religious morality are distinct	Some forms of morality are captured in laws, but other forms are properly the domain of religious authority and belief

Note: Schemas are listed in order of frequency; total N=692.

Table 3: Realist and Critical Schemas

<u><i>Schema</i></u>	<u><i>Description</i></u>
Religion as moral force	Religion exerts a positive moral force in the world; all religions share certain fundamental moral principles
Religion as coercive	Religion and religious actors are or can be coercive, aggressive, and dangerous
Religion as chosen identity	People choose their religion and religious identification can change over time
Religion as deep identity	Religion is integral to personal identity and happiness for some adherents; it is a defining aspect of self
Science as imperfect	Science is an imperfect human endeavor; people make mistakes and there are unintended consequences
Religion as authoritative	Religions are (or can be) authoritative systems with coherent doctrines and rules that guide beliefs and behavior
Religion and ulterior motives	Religion can be deployed for non-religious purposes, i.e. played as a “card,” treated as a means to an end
Law as dysfunctional	Law and legal actors are venal, oppressive, flawed, improperly strategic
Religion as real	Religion indexes something real, mysterious and powerful; encountering religion can be transformative
Criminal justice system as dysfunctional	The criminal justice system and/or prison system are flawed and oppressive, do more harm than good in their current form
Science and religion compatible	Science and religion are not inherently in conflict; some forms of religion can accommodate scientific perspectives
Science as arrogant	Scientists are arrogant and unaccountable
Science as business	Science is a business, driven by profit motives, thus corrupt and/or corruptible
Law as rigid	Law is abstract and rigid, not responsive to human individuality, situational contingencies etc.
Law must change with the times	The law has to keep up with the times; it is not transcendent
Law fosters inequality	The law is the source of, or reinforces, social inequalities
Judges as fallible humans	Judges are only human, fallible; they implement laws in ways influenced by their own background and circumstances
Science as unnatural	Science can lead to unnatural outcomes; science reflects human hubris in its desire to control or dominate nature

Note: Schemas are listed in order of frequency; total N=1,038.
