



# Investigation into the Interplay Between Scientific Reason and Religious Faith as a Source of Religious Struggle



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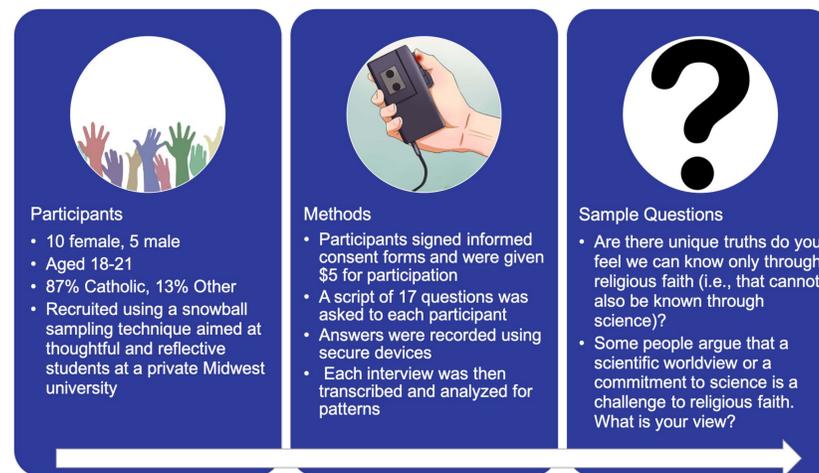
## ABSTRACT

Research on religious struggle in emerging adults shows that the experience of religious struggle is associated with anxiety, depression, and poor adjustment (Exline, Pargament, Grubbs & Yali, 2014), understandably prompting questions regarding the source of religious struggle (Ano & Pargament, 2013; Bryant & Astin, 2008). Our study examined what is arguably the most common cause of religious struggle: epistemic doubt about claims of religious faith. 15 students at a private religious university were interviewed to discover how they reconcile faith and reason. Participants answered a series of questions that focused on the interplay between scientific reason and religious faith, as well as any religious struggle related to this relationship. Qualitative analysis of the data showed patterns of personal experience and cognitive strategies that play a significant role in the way these emerging adults wrestled with the relationship between faith and reason. It was found that participants often perceived conflict between tenets of their own religion and scientific fact, and were able to reconcile these discrepancies through cognitive strategies, including accommodation. Reconciliation strategies were found to fit into Barbour's four categories describing the interplay of science and religion: Conflict, Independence, Dialogue and Integration (Barbour, 1990). Further research aims to develop a quantitative scale to measure an individual's position regarding the relationship between religious faith and scientific reason.

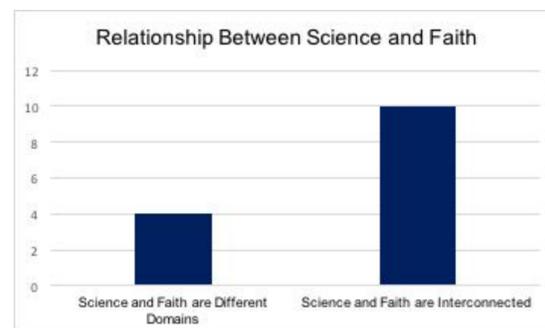
## BACKGROUND

- Religiosity is to seek the sacred and divine by means of formal religious and ritualistic observance in institutional church settings. Spirituality, in contrast, is a more personal and private project of seeking the sacred and divine, or else transcendent meaning or purpose, outside of institutional settings or apart from ritualistic practice of formal religions.
- While there is evidence that emerging adults have lower rates of religious participation than younger adolescents or older adults, other studies indicate that the college years can be a time of spiritual growth, with increased spirituality and religious experimentation. Because of the goals and structure of higher education, some amount of religious struggle is a normal and expected outcome of the intellectual challenges that accompany university education. How emerging adults resolve these struggles, particularly the cognitive conflict between their religious beliefs and new ideas, is a question novel to the literature.
- Extant assessments of spiritual struggle do not measure epistemic sources of religious struggle. For example, the Spiritual Struggles Scale commonly used in this literature includes six subscales, only one of which addresses "doubt" and has no reference to the source of this doubt (Exline, Pargament, Grubbs, & Yali, 2014).
- A number of theologians and scientists have proposed different solutions to the apparently conflicting claims of "faith and reason." Barbour proposes four broad patterns of how people manage claims of science and religion: conflict, independence, dialogue, and integration (Barbour, 1995).

## METHOD

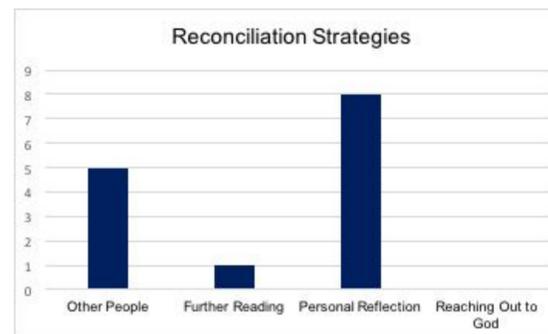


## RESULTS



**Figure 1. Classification of Interviews Based on Relationship of Science and Faith:** All interviews were categorized as either displaying a perspective of science and religion as different domains, or as being interconnected. 4 and 10 participants reflected the two perspectives respectively.

**Figure 2. Reconciliation Strategies of the Conflict Between Science and Religion by Participants:** The resolution of conflicts between science and religion was facilitated by interactions with others, further reading, personal reflection or connections with God. 5, 1, 8, and 0 interviews reflected each category respectively.



- Each interview lasted between 10 to 30 minutes with an average word count of 1300 words.
- Category membership was identified through inter-rater agreement after independent analysis.

## DISCUSSION

- We did find that our participants have experienced spiritual struggles, yet they were able to work through their conflict to establish faith and reason as distinct or interconnected domains.
- A majority of participants believe science and religious faith are interconnected domains. Some participants attribute this to their faith.



***"I've never thought there was a problem because you can say God was the guider and the force of evolution."***

- A majority of participants reconciled discrepancies through their own reflection.
- Barbour presented 4 categories - we only identified two through our research: independence and integration.

***"You just kind of have to believe that miracles defy science, they're getting at a different element of truth."***

## FUTURE APPLICATIONS

- Data collected from this study can be applied to the development of a *Faith and Reason* scale, measuring the struggle individuals experience trying to reconcile science and religion.
- Preliminary scale items are included below in Figure 3.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Faith and science are both right about different things.	1	2	3	4	5
Science proves faith is not needed.	1	2	3	4	5
There are things science cannot explain that faith can.	1	2	3	4	5
I don't like to think about how science and religion connect because it confuses me.	1	2	3	4	5

**Figure 3. Sample Items Constructed From Interview Trend Data:** Reverse scoring is necessary for some of the sample items provided. Items were formed using trends in interview data and evaluated by a group of 15 undergraduate researchers.

## CONTACT INFORMATION

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