

The Origins Beliefs of Christian College Students

Emily G. Wilkinson

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Beth Sites, Ph.D.
Thesis Chair

Keith Lahikainen, Psy.D.
Committee Member

James H. Nutter, D.A.
Honors Director

Date

Abstract

Many studies have focused on creation and evolution in academia, origins beliefs and biblical interpretation, and how students respond to origins challenges. The author then conducted a phenomenology of Christian college students' origins beliefs, factors that influence those beliefs, and impacts that the beliefs have on students' lives. Methods included a 44-Item Big Five Inventory and semi-structured interviews. Participants were eight residential undergraduate students at a Christian university who were currently or previously in a creation studies course. Results indicated that all participants held to young-earth creationism, and that family, Christian faith, education, personality, and academic major influenced the development of these beliefs. Implications of the findings, limitations, and suggestions for future research were included in the discussion.

Keywords: phenomenology, Christianity, origins beliefs, creation, evolution, biblical interpretation, BFI-44, interviews

The Origins Beliefs of Christian College Students

For several decades now, the origins of the universe and human life has been a subject of much debate in academia. Many scientists subscribe to the mainstream naturalistic evolutionary model of origins, which states that the universe began from nothing billions of years ago, and that all life evolved from the same starting point. They interpret scientific evidence in light of these theories, and adjust specific hypotheses accordingly within the larger theory. Other scientists, however, propose Young-Earth Creationism (YEC) as an alternative theory of origins that interprets scientific evidence in light of the creation account of Genesis 1-3 and the flood narrative of Genesis 6-9. Still others hold to Theistic Evolution and Intelligent Design, both of which posit that there is a Creator but that the biblical account is not literal to explain origins. Each of these positions can be supported, but not proven, by scientific evidence; they operate in the realm of historical science rather than empirical science.

Even among Christians, views on origins are greatly divided based on how one interprets the book of Genesis. While some interpret Genesis as a literal and historical narrative that aligns with a YEC position, others interpret Genesis more as a creation myth or account that does not speak to exact time, taking an Old-Earth Creationist (OEC) or Theistic Evolution position. Christians who claim that origins beliefs are unimportant to faith ignore the implications that arise from how one interprets Genesis, which includes foundational theological principles for the rest of the Bible. The phenomenon of college students leaving the Christian faith in recent decades has led church leaders and researchers to ask what is causing this. Often, the answer is that these students were not given the intellectual foundation to defend their faith, so when challenges arise from the scientific realm, they falter. However, other Christian college students

remain strong in their faith as they encounter such challenges. The numerous factors that can influence what Christians believe regarding origins and the Bible, and the impacts that such beliefs have on them, is a subject that demands more exploration as debates on origins and biblical accuracy continue within the church.

Christianity and Origins Beliefs

Survey Research on Origins Beliefs

Public opinion polls have recently revealed interesting information regarding people's beliefs on origins. In 2013, Pew Researchers found that 33% of Americans reject naturalistic evolution as an explanation of origins, responding that "humans and other living things have existed in their present form since the beginning of time", with 60% saying that "humans and other living things have evolved over time" and 24% of that group expressing belief that God or a supreme being guided the process of evolution (Pew Research, 2013, para. 1). More recently, a Gallup survey found that Americans' belief that God created humans in their present form, which incorporates both young-earth and old-earth positions, has reached an all-time low at 38%, while belief in naturalistic evolution has more than doubled from 9 to 19% and belief in theistic evolution is consistently close to 38% of the population (Swift, 2017). There are noticeable differences among religious groups regarding belief in evolution; a Pew Forum Religious Landscape Survey found that Buddhists and Hindus were the most likely to "agree that evolution is the best explanation for the origins of human life on earth", while Evangelical Protestants, Mormons, and Jehovah's Witnesses were the least likely to agree (Pew Research, 2009, graph). The most recent Pew Survey on origins beliefs gave respondents either a single question or two questions regarding their beliefs about evolution; when respondents are immediately given the

option to say that God instigated human evolution, the percentage of those who express creationist views drops from 31% to 18% (Pew Research, 2019). The percentage of those who responded that humans evolved via natural selection decreased from 40% to 33%, while those who responded that evolution was guided by God increased from 27% to 48% (2019). Pew Researchers also examined the history of their origins surveys, from 2005 to 2019, and found that making changes to the way survey questions are worded can impact the way that people respond (2019). The most recent Gallup survey reported that as many as 40% of Americans hold a creationist view of human origins, even when given the option of God playing a role in evolution; this number has risen from 38% in 2017 (Brenan, 2019). Brenan noted that these views vary based on church attendance, religious affiliation, and education level; the majority of Protestants and those who attend church weekly believe that God created humans in their present form, while the majority of those with college degrees believe in theistic or naturalistic evolution.

There appears to be a stark discrepancy between the results of this year's origins surveys that may need to be further investigated. Both Pew and Gallup conducted surveys on adults in the United States, so it seems noteworthy that the results vary to the degree that they do. This variation can be explained in part by variations in the wording of the survey questions; participants have interpreted the questions and responses differently between the two surveys. Further exploration of the nature of both surveys may offer insight as to this phenomenon.

Development of Origins Beliefs

For some, young-earth creation is considered a scientifically deviant belief. A case study on the factors that influence deviance from mainstream scientific consensus, including young-

earth creationism and disbelief in global warming, found that political and religious factors are greater predictors of scientific conformity in origins beliefs than education (Tom, 2018). A person's conception of consensus was also found to be important; people generally value conformity, so if they perceive the expert scientific consensus to be that evolution is an explanation of human origins, they will likely conform to that belief (Tom). A meta-analysis of 63 studies on intelligence and religiosity found a significant negative association between religious beliefs and intelligence measures, particularly among college-age and older adults (Zuckerman, Silberman, & Hall, 2013). Researchers noted that the size of this negative correlation varied across sample types and the nature of the religiosity measures; the relation was weakest in populations of the precollege level and when measures assessed religious behaviors rather than beliefs (Zuckerman et al., 2013). One hypothesis of this negative correlation was that Christian fundamentalism and similar practices block access to secular knowledge, while another was that more intelligent people are more mentally equipped to deal with "evolutionarily novel phenomena, including atheism" (Zuckerman et al., p. 345). They also noted that atheism in a religious society was nonconformity (Zuckerman et al.), which contradicts the conclusion of Tom's study that a belief in young-earth creation was nonconformity. Regardless of whether they are labelled conformist or not, both authors take a somewhat negative attitude towards religious beliefs.

These findings raise several interesting questions: How are researchers defining beliefs as nonconforming? What compels people to choose beliefs that go against societal norms? Can a person be both intelligent and religious? One review suggests that this is possible, claiming that science and religion are neither completely independent nor opposing fields and proposing a

reconciliation model between the two (Legare & Visala, 2011). Such a model emphasizes reformative reconciliation, which involves four methods of dealing with conflict between science and religion when the fields overlap (Legare & Visala). One of these methods is conservative reconciliation, which prioritizes religious beliefs over scientific explanations when conflict occurs; most creationists are listed as an example of this method (Legare & Visala). In this, Legare and Visala acknowledge that creationists do not advocate for religion to replace science, as many evolutionists believe they do, but rather that they desire integration of the two fields. Nevertheless, many people, both religious and nonreligious, still struggle to accept such reconciliation, particularly when it comes to origins.

Biblical Interpretation Regarding Origins

One of the most popular criticisms of young-earth creationism is that the Bible, particularly the creation account, is full of discrepancies and can therefore not be interpreted as literally true. A researcher from Andrews University examined two passages inherent to the doctrine of creation—Genesis 1:1-24a and 2:4b-25—and found that many biblical scholars stress discrepancies between the two accounts, attributing these to different authorship (Moskala, 2011). Based on the language the author uses throughout the article, he begins with the assumption that to not see apparent contradictions between these passages is exegetical blindness (Moskala). However, he then presents theological exegetical responses that claim these two accounts are different yet complementary in nature, not written by two separate authors. One of the twelve apparent contradictions listed is the way the passages use the term *yôm*, Hebrew for “day”; Genesis 1 uses the word to demarcate literal 24-hour days of creation, while Genesis 2 uses it within the expression *b’ yôm*, meaning “in a day” or “when” (Moskala, 2011, p. 47). In

addressing these differences and suggesting a complementary view of the two passages, the author pointed out that biblical theology is rooted in history, so the two fields should not be separated when examining and interpreting the Bible (Moskala). This echoes Legare & Visala's (2011) conclusion, albeit from a more religiously-inclined source.

Empirical Research on Biblical Interpretation and Beliefs

Empirical studies have also been conducted on the factors in biblical interpretation and beliefs; Francis and ap Siôn (2016), Francis and Smith (2017), Village (2014), and Village and Baker (2013) found connections between personality type and perception of particular passages of Scripture. Francis, along with other researchers, conducted at least two studies of how personality traits of the SIFT (sensing, intuiting, feeling, thinking) approach impact people's interpretations of biblical passages; both studies found that sensors and thinkers tended to interpret and discuss Scripture with different themes and focal points than intuitives and feelers did (Francis & ap Siôn, 2016; Francis & Smith, 2017). In relation to origins, it was found that among churchgoers in England, those who rejected naturalistic evolution were predicted by psychological type preferences for sensing over intuition and for thinking over feeling, although denominational affiliation and church attendance were the two main predictors of this position (Village & Baker, 2013). Another study by Village focused on interpretations of Genesis; it was found that literal interpretation was associated with sensing and thinking preferences, while symbolic interpretation was associated with intuiting and feeling (2014).

Personality is not the only factor researched within this topic. Gervais found that even when demographic and religious variables are controlled, an analytic thinking style predicted belief in evolution (2015). Another study hypothesized that there is a gender gap that accounts

for differences in interpretation; researchers found that women are more likely to interpret the Bible literally than men, but that this relationship is moderated by an individual's intimacy with God (Kent & Pieper, 2019). This study divided Christians into three categories based on their view of the Bible: literalists, interpreters, and skeptics (Kent & Pieper). It was found that after accounting for attachment to God, women were no longer associated with increased literalism. Age may also be a factor in the development and holding of origins beliefs; one study found that older adolescents were less likely to believe in creationism than younger ones (Klaczynski, 2017). A study of children in the United Kingdom and their origins beliefs partially supported a similar hypothesis in finding that 7-year-olds expressed creationist beliefs more than evolutionary beliefs, while 10-year-olds endorsed these beliefs to a similar degree (Tenenbaum & Hohenstein, 2016). Conversations with parents regarding origins were also found to influence children's endorsements of creationist or evolutionary views, and the views children expressed correlated with their parents' views (Tenenbaum & Hohenstein). Thinking style was also found to correlate with both personality traits and beliefs about the self and the world; a rational thinking style was directly related to Openness, Conscientiousness, and generally favorable beliefs about the self and the world (Pacini & Epstein, 1999). Such beliefs are intrinsic to one's self-concept and sense of meaning, particularly when they are about God.

Intimacy with God has been studied as a mediating factor of the relationship between self-concept clarity and a sense of meaning in life. An intrinsic religious orientation was found to be a predictor of sense of meaning of life, while a questing religious orientation, described as a mature religiosity that is characterized by openness and a search for more complete answers to life's difficult questions, was a predictor of self-esteem (Blažek & Besta, 2012). An extrinsic

orientation and fundamentalist orientation did not predict meaning or self-esteem; Blažek and Besta suggested that when a person exhibits low self-concept clarity, and religious engagement is strong but not internalized, it can serve to worsen one's self-assessment of one's life rather than improving it. Therefore, an intrinsic religious orientation was the most significant predictor of meaning in life, while people who were more certain about who they are reported a higher level of quest religious orientation and self-esteem than those without a questing orientation (Blažek & Besta).

It has also been found that those who have clear beliefs about God possess a greater self-concept clarity than those who do not; Kitchens & Phillips found that, when compared to beliefs about science and politics, clear religious beliefs correlated more with clarity about the self (2018). This relationship is curvilinear, meaning that those with clearer positive *and* negative beliefs about God have higher self-clarity than those with unclear beliefs (Kitchens & Phillips). Tied to these findings is a sense of meaning; Nelson, Abeyta, and Routledge (2019) found that theists were more likely than atheists to report presence of meaning in life and the need for meaning—but not the search for meaning. Theists were more likely to report social and religious sources of meaning, while atheists were more likely to report having no sources of meaning or meaning sources that were not coded (Nelson et al.). Gender differences were also discovered here; females were more likely to report social sources of meaning, while males were more likely to attribute meaning to self-improvement and spirituality. Researchers noted that these findings were consistent with past research that linked religiosity to meaning, although they admitted a limitation in their study with a limited measure of the diversity of religious nonbelief (Nelson et

al., 2019). These studies reveal the connections between how one's beliefs influence and are influenced by an intimacy with God, a sense of meaning, and a concept of self.

Origins Issues in Education

Positions on origins are not merely a reflection of individual beliefs; all academic institutions take positions on this issue as well, explicitly stated or otherwise. Empirical studies have explored the teaching of naturalistic evolution in schools. One such study examined German high school students' attitudes towards evolutionary theory and creationist beliefs, and found seven attitude profiles among them that perceive science and religion in unique ways, and that the creationist students were far outnumbered by students with other views (Konneman, Asshoff, & Hammann, 2016). The researchers noted that creationist attitudes can be addressed in the classroom by discussing the science-religion issue and providing evidence for evolutionary theory (Konnemann et al.). Even though students with creationist views are given a voice in this discussion, such an approach still operates within the assumption that naturalistic evolution is the superior position and that these students must be guided towards this perspective.

Private Christian universities and Bible colleges are given more leeway in being allowed to discuss alternate theories for origins such as creationism. A notable percentage of those universities, however, adhere to mainstream science positions or hesitate to bring up origins at all. This divide across Christian universities is illustrated in a 2010 study by Britt Beemer's America's Research Group that polled faculty of 200 colleges on faith questions, as cited in the book *Already Compromised* by Ken Ham and Greg Hall of Answers in Genesis (2011). Even within campuses, researchers found that key faculty members responded differently to questions about the university's core values and teachings; when asked about beliefs regarding the Flood

and the creation account in Genesis 1-2, college presidents and vice presidents gave young-earth responses with higher percentages than both the religion and science departments (Ham & Hall, 2011). A notable discrepancy was seen in response to the question of whether the Flood was worldwide, local, or non-literal; 86% of presidents believed the Flood was a worldwide event, while only 42.9% of vice presidents held to that belief (Ham & Hall). There was even a variation of responses among individuals that suggested confusion about origins beliefs; 20% of college presidents answered “Yes” that they believed God did create the earth in six literal days and that they believed God created but not in six literal days (Ham & Hall). The confusion continued with more detailed survey questions, as 92.2% of vice presidents believed the Bible was literally true, but only 40.3% of them believed that God created the earth in six literal days (Ham & Hall). When asked what their institutions teach about evolution, the percentages of responses from the presidents, vice presidents, religion chairs, and science chairs differed alarmingly. Zero percent of presidents believed their institutions taught evolution as true, and only 6.3% of science department chairs did so, but 30.9% of religion chairs responded that it was taught as truth (Ham & Hall). At the same time, only 6.3% of the science chairs responded that evolution was taught as false (Ham & Hall). Based on these results, it seems that the majority of Christian science departments take a more nuanced approach to the issue of origins, perhaps presenting both positions as theories that evidence can either support or contradict. This evident disconnect and confusion among key faculty members raises questions as to consistent teachings across departments when issues are so important as to impact one’s stance on biblical inerrancy.

A study of biology professors at Christian universities who taught evolution found that professors emphasized cultural competence in science and encouraged students to look up to

Christian scientists as role models for integration of faith with evolutionary theory (Barnes & Brownell, 2016). From these professors' perspective, cultural competence means integrating religious beliefs with evolutionary theory, which is currently the societal norm when it comes to positions on origins issues. Barnes & Brownell went so far as to suggest that diversity efforts within STEM need to consider the inclusion of students from various religious backgrounds, as a disconnect between faculty and student beliefs about origins could possibly hinder those students from pursuing careers in scientific fields. When presented with this apparent conflict between scientific and religious teachings, what are students to choose? Often, these students either begin to doubt that the Bible is true and reliable, or they decide to walk away from the scientific community altogether, feeling that they are unable to intellectually reconcile the two fields. Either scenario is less than ideal. This conflict between Christianity and science, however, is not a given at all universities.

Other Christian universities teach creationism; according to Answers in Genesis, there are at least 44 liberal arts and Bible colleges that are called "creation campuses", including Liberty University, where a creation studies course is offered to students of all majors (Golden, 2014, para. 9). In an interview with Dr. Ed Hindson, Liberty's assistant to the chancellor and dean of the School of Religion, Hindson stated that "If you present the creationist viewpoint effectively, not only from the Bible but from scientific evidence, the secular community may not agree, but they are not going to penalize you" (Scharf & Hindson, 2014, para. 6). He explained that Liberty typically receives more challenges on abortion and homosexuality, and that the university's academic accreditation has not been called into question on the basis of young-earth creationism (Scharf & Hindson, 2014). When asked to sum up the importance of a literal understanding of

Genesis 1-11, Hindson explained that “[t]he power of the gospel is rooted in the concept that God created you, that He has the power to redeem” and that “[t]he story of Genesis sets up the story of the rest of the Bible” (Scharf & Hindson, 2014, para. 8). The vast majority of Christian universities affirm that the Bible contains truth; however, their positions on biblical inerrancy and interpretation of Genesis vary widely. This means that students attending these colleges are taught a variety of views regarding origins, if their university addresses the issue at all.

Gap in the Literature

As informative as these surveys and studies are regarding the factors that influence the development of religious and scientific beliefs, they operate primarily in the quantitative realm of research. Additionally, there is little research focusing on the origins beliefs of college students themselves rather than their professors and the education system, or American adults in general. College students who are Christians are even less likely to be subjects of study in this area. The current study aims to address these limitations through qualitative research with Christian college students. This population in particular is at a critical age for study, as they are beginning to establish their own beliefs on Christianity and origins apart from what they have been taught by their parents and teachers, and may be struggling to reconcile scientific teachings with their faith. These students have begun to examine the evidence for and against evolution, to look at that evidence through the lens of their worldviews, and to respond accordingly—be it by holding to a literal or figurative interpretation of the creation account in Genesis. A qualitative study of college students’ beliefs could offer insight into the nature of this phenomenon: not only what their beliefs are, but how they developed and how they impact various areas of the students’ lives.

Research Questions

The current study attempts to answer several research questions: What do Christian college students believe about the origins of the universe and human life? What factors of their lives and upbringing impact the formation of these beliefs? How are such beliefs perceived to impact other areas of the students' Christian faith and daily lives, such as academia and relationships?

Method

To explore these questions, the researcher conducted a phenomenological study of Christian college students, gathering their insight through semi-structured, one-on-one interviews. All data were collected between the months of September and November 2019. Each participant was given a pseudonym in this thesis for confidentiality purposes.

Participants

Participants were eight residential undergraduate students at a Christian university, between 18-22 years of age, and representing a variety of majors. All participants were either currently or had previously been enrolled in a Creation Studies course taught at the university. Participants were recruited from two Creation Studies classes and through the researcher's personal social media. Five participants were seniors, one was a junior, and two were sophomores. Five participants were females, and three were males.

Materials

BFI-44 (Big Five Inventory, 44-Item Scale). Before the interviews, participants were administered paper copies of the 44-Item Big Five Inventory, or BFI-44 (John, Donahue, & Kentle, 1991; John, Naumann, & Soto, 2008), to self-report their personality traits. This

inventory includes five dimensions: Extroversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experiences. Participants answered questions about these traits using a five-point Likert scale, with answers ranging from “disagree strongly” to “agree strongly” (John et al., 1991; John et al., 2008). The completion of these inventories took less than five minutes per participant. The results were hand-scored by the researcher, and used in conjunction with information given via interviews on how those traits are perceived to be related to their holding of origins beliefs.

Interview. Participants were interviewed individually in private group study rooms in the campus’s library. All interviews lasted between 15-40 minutes and were semi-structured in nature. The researcher used an interview guide for questions, but occasionally ventured off-script for clarification purposes. Participants were first questioned on demographic information, then about their university experiences, upbringing, Christian faith, origins beliefs, other beliefs about the Bible, and their understanding of the development of and effects of these beliefs in their lives (See Appendix for Interview Guide).

Results

Qualitative data from interviews were organized and coded for themes through NVivo 12 for Mac. Node categories include demographic factors, origins positions, stated beliefs, personality, influences on life, and other insights. Across interviews, the most coded categories and sub-categories of content include Christian faith history, family history, educational history, stated beliefs, influence on other Christian beliefs, and influence on academic life. Participants will be referenced under the following pseudonyms: X, Q, A, I, P, O, U, and Y. Majors represented include English, Zoology, Environmental Science, Biomedical Sciences, Exercise

Science, Religious Studies, and Western Legal Traditions. All eight participants reported holding to young-earth creationist views, though some maintained these positions more confidently than others.

Factors That Influence Origins Beliefs

A number of demographic factors were found to relate to participants' perceptions of the development and importance of their origins beliefs; namely, the education system they were raised in, their history with the Christian faith, and the extent that their parents discussed origins with them as they were growing up. Participants who were homeschooled or attended a private Christian school were more likely to learn about creation and to evaluate both creationist and evolutionist theories as explanations for origins, while the two who attended public schools were less likely to hear about creation in a classroom setting and more likely to be taught evolution as fact. However, what these students were taught in classrooms while they were growing up did not necessarily align with their current beliefs.

Participants' chosen majors appeared to influence how they discussed origins issues. Both English majors commented on the importance of examining the structure and context of biblical texts as with other writings, and both agreed that the creation account in Genesis does not appear to be written with figurative or poetic language. One of the English majors mentioned reading the flood myths of various cultures in one of her classes. The Zoology, Biomedical Sciences, and Environmental Science majors referenced specific evidence that creationists use in defense of their position, such as fossil records, DNA, the Cambrian explosion, microevolution and adaptability, and the complexity of enzymatic reactions in the human body. The Zoology major shared that she cares for animals because of the dominion mandate in Genesis: "The

reason I'm in my major, apart from the fact that I love science and animals, is because I believe that in the beginning of the world, God was like, 'Take care of creation'. So that's what I'm trying to do." The Exercise Science major and the aforementioned science majors all emphasized the way they see intelligent design evidenced in nature when they venture outside.

The Religious Studies major was comfortable using theological terminology and admitted that origins issues are a point of tension between him and others in his major. While he holds young-earth creation to be of great theological importance, he shared that it is often overlooked in the department by both faculty and students, due to the uncomfortable nature of the debate. As a result, many of his fellow students are confused on where they stand or ambivalent about the issue altogether; he expressed concern over this, as these students are going into ministry. The Western Legal Traditions major shared how his reasoning on origins issues takes the structure of the reasoning he learns as a pre-law student: "A big thing in the law side of things is precedents. So beforehand, if I believe this, it has to line up with what I believe over here. So, because I believe in creation, I can't believe in something that's opposite of that." In this case, he is referring to evolution.

One factor that did not appear to bear much weight on the development and holding of origins beliefs is one's denominational background. Denominations represented include Baptist, Lutheran, Presbyterian, Nondenominational, and a blend of church affiliations. The eight participants all seem to have learned similar doctrines and creation narratives from their churches, regardless of particular denomination. Overall history with the Christian faith and familial upbringing offered more insight as to the origins of their origins beliefs.

All seven participants who grew up in the church and received a Christian education attributed those as major factors in the development of their young-earth creationist beliefs. They noted that what their parents taught them about God made them more willing to explore and hold to creationism, and that their origins beliefs were originally what their parents told them was truth. Three participants mentioned specific educational organizations such as Answers in Genesis, Focus on the Family, Apologia, and BioLogos as integral to the development of their origins beliefs. However, this was not the case for O, who was raised by parents who hold to atheism and naturalistic evolution, and attended public schools prior to college, where he was taught from a similar worldview. He holds to young-earth creationism, to the point where he chose to attend this university in part due to its creationist stance. He researched origins issues independently through reading the Bible, watching YouTube videos, and participating in an internship that taught creationism. This was another common theme throughout interviews, regardless of family and education history: All eight participants reached the point where they began to study, research, and reflect independently on these issues, and they all arrived at a creationist viewpoint.

When questioned as to how their personality, as tested via the BFI-44, relates to their origins beliefs, one participant did not know how to respond, but the other seven answered readily. Traits such as stubbornness, outspokenness, desire for knowledge, and truth-seeking were all cited as reasons why they hold so firmly to their creationist beliefs. As P noted, he has a “strong-willed individualness” yet is disinclined to be outspoken; rather, he observes what others believe, then develops his own beliefs, which are difficult for him to change once he holds them. X described her quiet and introspective tendencies as leading to giving these issues much thought

and reflection. A third participant, A, noted that she is highly analytical and mentally argues from others' perspectives to herself, so that "I'm pretty convinced I'm right, because I think about things like this a lot"—much like P. Q noted that as she is fairly opinionated, she feels that were she more interested in science rather than in her major, she would be more outspoken and confident in her position. She is "very willing to consider new ideas", and this leads her to be more open to the possibility of evolution than her fellow participants; she also does not believe this to be a crucial point in sharing her faith.

Origins Beliefs in Relation to Other Beliefs

Across interviews, there was a connection between the strength of one's origins position and belief in the inerrancy of Scripture. All eight participants stated beliefs that the creation narrative, or Genesis 1-3, and flood narrative, or Genesis 6-9, were written as historical events that actually happened. Q, who stated that she held to a creationist view because she would have to face logical inconsistencies in the biblical narrative otherwise, later admitted that biblical inerrancy is the most difficult issue for her personally and is "the biggest intellectual issue facing Christianity" at present. She wrestles intellectually with trusting that every individual word in the Bible was actively placed there by God and with taking a firm position regarding origins, while also claiming a "comfort with ambiguity" in her personality. Conversely, the seven participants who displayed confidence in their origins beliefs and their reasoning behind them also held the same confidence when discussing biblical inerrancy and doctrine.

All eight participants readily discussed how their beliefs regarding creation are connected to other theological areas of Christianity, such as hamartiology (the study of sin), Christology (the study of Jesus Christ), and soteriology (the study of salvation). They acknowledged that if

the original created goodness and the Fall in Genesis are not historical events that occurred, there would be little need for the New Testament to be true either; there is no reason for the Gospel or the rest of the Bible without the creation and fall. When discussing this, X admitted frankly that there are times when she wishes the Bible was not true, because if it is true, it holds her to a standard of accountability for her life and actions. At the same time, she is grateful that it is true, because that allows her to believe in something with a solid foundation of objective truth in the midst of competing mentalities and worldviews. Even Q, the participant who claims she would hold the same theology if her origins beliefs changed, noted that “the theology isn't logically consistent if there isn't an Adam who was made in the image of God, who sinned” and that “salvation would look very different if this account wasn't true”. A common theme of each interview was the unanimous importance of origins issues in Christian theology, and with that, the consistency that a young-earth creation stance offers in conjunction with this theology.

Influences of Origins Beliefs on Participants' Lives

Participants tended to see more of an influence of origins beliefs on their academic rather than personal lives. Two felt that origins beliefs had no relevance for their relationships. However, when the other six participants did discuss relational relevance, they focused on how their belief in creation causes them to view and treat people as created in God's image: equals and worthy of respect and compassion. As Y commented:

Through creation, we see that we are created in God's image and that gives us sort of a very equal and level playing field. Is that the word I want to use? We just, we are all on the same level. And I really think that my understanding of that and understanding of God creating us in his own image and us being his image bearers and his creation,

oftentimes allows me to strip away what a lot of people use to mask themselves. So their title, their grades, their money, status, all of these things. So at some point... you're not really intimidated by that because you realize we are all broken people.

Two others noted that these beliefs can occasionally cause tension in their discussions and relationships with people who either do not agree with their view or view origins issues as important. U discussed how her sense of meaning and purpose can be traced back to her beliefs that the creation narrative in Genesis is historical truth:

If we didn't have that as a basis and I didn't understand that we were created by God, and that he not only created us but gave us a chance to be redeemed... there literally would be no purpose for life. For instance, if we were created by God and then we sinned and we were just, that was it. And then there was nothing else... there would literally be no purpose. Like... you would just be trying to stay happy for as long as you can before it ends.

X emphasized a similar sense of meaning and purpose as a result of her beliefs. All eight participants agreed that origins beliefs and issues are freely discussed at the Christian university they attend; three science majors even mentioned that they chose this university in part because it has historically taken a young-earth creationist stance. However, two participants displayed empathy in noting that it would be difficult to attend this university as a student who holds to evolution when professors teach creation. All eight participants were able to list several ways that their origins beliefs impacted not only their other Christian beliefs, but also other areas of their lives, including their academic choices and freedom, the way that they view and treat others, and even their sense of life's meaningfulness.

Discussion

Confirmatory Findings

Personality. In relation to the literature, this study's findings partially supported the findings indicating the influence of one's personality traits on the way that they interpreted and discussed key biblical passages. However, this study examined personality through the lens of the BFI-44 (John et al., 1991; John et al., 2008), rather than the SIFT model that the studies by Francis and ap Siôn (2016), Francis and Smith (2017), Village (2014), and Village and Baker (2013) used, as the BFI-44 has been shown to have more empirical validity as a personality measure. Participants who described themselves as analytical truth-seekers, similar to the SIFT's category of thinking, were likely to interpret Genesis literally, consistent with the findings of Village's 2014 study. However, participants who self-described using language that indicated intuitive traits were just as inclined to interpret Genesis literally rather than symbolically, which contradicts claims that symbolic interpretation is associated with intuiting and feeling (Village, 2014).

Family and faith history. Furthermore, as mentioned in the results, denominational background did not appear to be a main predictor of rejection of naturalistic evolution as Village (2014) and Village and Baker (2013) surmised. Instead, the researcher discovered that familial upbringing and general history with the Christian faith were more closely connected to the development of origins beliefs, which supported Tenenbaum and Hohenstein's findings of significant relations between parents' and children's origins beliefs, particularly when parents discussed origins with their children (2016). Pacini and Epstein's relation of a rational thinking style to Openness and Conscientiousness (1999) was partially supported by the BFI-44 results;

all but two participants who scored highly in Conscientiousness scored similarly on Openness, and participants generally reported a high self-concept and sense of meaning.

Intimacy with God and sense of meaning. The current study found no evidence of a gender gap in biblical interpretation; the three male participants held to a literal interpretation of Genesis with as much conviction as the five females, and they expressed a similar intimacy with God. This echoes the conclusion of Kent and Pieper's 2019 study that attachment to God is a mediating factor that accounts for the apparent gender gap seen in biblical interpretation. As the study by Blažek and Besta (2012) shows, an intrinsic religious orientation was found to be a predictor of a sense of meaning in life. This intrinsic orientation, and intimacy with God as was studied by Kent and Pieper, are tied to clarity of beliefs about God and about self, as Kitchens and Phillips (2018) discovered. The content of the current study's interviews revealed these connections as well; three participants described how their relationship with God and their clarity and confidence on their origins beliefs give them a sense of meaning and purpose in life.

Institutional teachings. The literature regarding the confusion often present among departments of Christian universities when dealing with origins issues was, unfortunately, supported by some of the interview content. As Ham and Hall (2011) demonstrated in the book *Already Compromised*, when surveyed about their own beliefs as well as what their religion and science departments taught regarding origins, key Christian university faculty members responded very differently, with a notably higher percentage of religion chairs than science chairs claiming that evolution is taught as true. As the Religious Studies major mentioned in his interview, his university's religion department has in the past displayed some hesitancy to address origins issues, in contrast to the university's science department, which offers a course

on creation studies and includes creation discussions in many other classes. He has seen the negative effects this has on other students within his major.

Unique Findings

Education. Unsupported by this study was Brenan's assertion that, according to the results of a recent Gallup survey, those with college degrees are more likely to believe in theistic or naturalistic evolution rather than creation (2019), and the claim by Zuckerman et al. that there is a significant negative association between religious beliefs and intelligence measures (2013). Each of the participants of the current study, sampled from a university, are full-time college students who are pursuing degrees in a variety of fields, and all eight discussed their access to other worldviews and teachings on both evolution and creation in their pre-college education and independent study of the issues.

Conformity. The literature on conformity's influence on creation beliefs also went unsupported; according to Tom, if people believe the expert scientific consensus that evolution is an explanation of origins, they are inclined to conform to that belief rather than take a nonconformist stance such as creation (2018), and conversely, Zuckerman et al. claimed that in a religious society such as the United States, belief in religion, including the creation narrative, is conformity (2013). While participants originally formed beliefs based on what their parents or other Christians in their lives taught them, they eventually formed their own beliefs independent of either what the majority of scientists or the majority of Christian leaders claimed as truth. Conformity did not seem to be a major factor either for or against the formation of their young-earth beliefs.

Major. Unique in its independence from the current literature was the influence of participants' chosen majors on how they discussed origins issues. While they did directly speak of the ways that they perceived their majors as related to their origins beliefs, they also tended to focus throughout their interviews on concepts that pertained to their interests. For example, the science majors described in detail scientific evidences that supported creation, while the English majors both commented on the literary structure of the creation narrative in Genesis. The relationship between participants' major and the way they process and discuss their origins beliefs was an unexpected source of much insight for the researcher.

Integration of Scientific and Christian Beliefs

In interviews with participants, it became clear that, contradictory to some of the literature on origins issues, scientific and religious beliefs are not independent and opposing systems. Rather, as Legare and Visala (2011) pointed out, integration is possible and indeed beneficial between the two fields. Rather than seeing tension between scientific findings and their Christian worldviews, participants described how learning and observing science deepens their faith in and awe of God as Creator. As Y said to conclude her interview:

I'm very passionate about this. I think that your theology of origins does impact every area of your life... It says in Romans that His divine attributes are seen in creation around us, so that no one has any excuse. So I love the opportunity to draw on what we see around us and what God created to point others to God.

Conclusion

This research was conducted to offer insight into the factors that influence the development and strength of Christian students' beliefs on origins, as well as the impacts that the

students perceive those beliefs to have on their lives. Each of these research questions was addressed throughout interviews with participants, with additional insights given on areas such as their Christian testimonies, their perceptions of the university they attend, and their feelings about how other Christians ought to address these issues.

Implications

The findings of this study indicate a correlation between one's choice of major and approach to origins issues, something that the current literature has not yet covered. This offers insight into how students' career and academic interests can be reflected in how they verbally process their beliefs. It is possible that students' majors are as meaningful as their personality in the exploration and expression of their beliefs about Scripture.

This study's findings also shed light on the multifaceted nature of the development and strength of one's beliefs; the factors studied all overlap considerably with each other, and there is no one factor that can be pointed to as the main determinant of a particular stance. One's family history is closely tied to the type of education one receives and whether or not they were raised in the Christian faith, and their major and other interests are often connected to certain personality traits. The nature of the impacts of origins beliefs on participants' lives depends in part on how much value the participants place on origins and how much time they spend reflecting on these beliefs; participants who do not view origins of great doctrinal importance are less likely to note impacts on their relationships.

Insights from participants suggested that the science departments of Christian universities may be teaching on origins issues with more clarity and intentionality than religion departments. This raises some concerns, given the theological nature and doctrinal significance of the origins

of the universe and human life. Teachings on a Scripture-oriented subject across departments should display cohesiveness rather than confusion. Moving forward, Christian universities might consider evaluating inter-departmental stated positions and teachings regarding creation and evolution, to ensure that they are not doing their students a disservice by adding to the confusion and hesitancy to address this debate.

Limitations

One of the current study's limitations is that, as participants were recruited from a Christian university and had taken a creation studies course, those who were young-earth creationists may have been more inclined to participate in interviews on their beliefs. Generalization across other schools and cultural groups could be another issue; all participants attended the same university, and all were Caucasian Americans. All data in this study were gathered through self-report measures; participants' personality traits, insights, and beliefs are subjective by nature.

Suggestions for Future Research

Future research should explore the origins beliefs of college students on a wider scale, both qualitatively and quantitatively. It should also involve participants from a variety of universities, educational backgrounds, and cultural backgrounds across the United States. Gathering a more comprehensive array of majors would allow for comparisons to be found between similar groupings of majors, such as the arts and the sciences, and the way their language used and emphases made correlate with their chosen career path. Comparing the responses from religion majors to those of science majors to see how great an impact their department's addressing of these issues has on their own estimation of origins beliefs and their

theological significance would also be beneficial. A longitudinal study of the development and progression of these beliefs across the lifespan could offer insight into any longer-reaching impacts the beliefs have on various areas of people's lives.

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Appendix

Interview Guide and Questions

- 1.) What are you majoring in? What year are you?
- 2.) What are some of your hobbies/interests?
- 3.) What brought you to Liberty?
 - a. How has your time at Liberty been thus far?
 - b. What is your daily life/routine like at Liberty?
- 4.) Describe a normal day at Liberty.
 - a. Prompt: Discuss your faith life/routine.
- 5.) What is your history with the Christian faith?
 - a. Did you grow up in the church?
 - i. If so, what denomination?
 - ii. If not, what brought you to church as a teen/adult?
 - b. Briefly share your testimony.
 - i. Life before Christ
 - ii. Salvation
 - iii. Current relationship with the Lord
- 6.) What is your family history?
 - a. What was your parents' approach to Christianity?
 - i. Prompt: Briefly describe their upbringing.
 - b. Did your parents discuss origins with you at all?
 - c. Do you agree with your parents' views on origins? Why/why not?

- 7.) Were you homeschooled, or did you attend public school or private school?
 - a. If homeschooled, what were you taught about creation and/or evolution?
 - b. If attended public school, what were you taught about creation and/or evolution?
 - c. If attended private school, what were you taught about creation and/or evolution?
- 8.) Describe your beliefs about the following Biblical passages.
 - a. Creation narrative (Genesis 1-3)
 - b. Flood narrative (Genesis 6-9)
- 9.) What are your beliefs on how the universe and human life came to be?
 - a. Prompt: Describe how you came to hold these beliefs.
 - b. Prompt: Discuss the factors you believe shaped these beliefs.
 - c. Prompt: Describe how, if at all, your personality (as tested before the interview) relates to these beliefs.
 - d. Prompt: Describe how, if at all, your major relates to these beliefs.
- 10.) How do you understand these beliefs to have influenced your life?
 - e. How do they influence your interpretation of the rest of the Bible?
 - i. Prompt: Discuss your beliefs as to whether or not the Bible has any errors.
 - ii. Prompt: Describe your feelings about the Bible's errancy/inerrancy.
 - f. How do they influence your understanding of Christianity?
 - i. Prompt: Discuss the theological areas these beliefs impact.
 - ii. Prompt: Tell me what you believe about sin.
 - iii. Prompt: Tell me what you believe about Jesus's death and resurrection.
 - g. How do they influence other areas of your life, if at all?

- i. Prompt: Describe their influence on your academic life.
- ii. Prompt: Describe their influence on your discussions/relationships with others.